



Meridian Solar Farm

EN010169

Volume 6

Environmental Statement

6.3 ES Appendix 9-13:
Summer 2025 Vantage
Point Survey Report

APFP Regulation 5(2)(a)

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

March 2026

Table of Contents

1. Executive Summary	1
2. Introduction	2
2.1. Background	2
2.2. Scope of the Report	2
2.3. Site Context and Status	3
2.4. Project Description	3
2.5. Relevant Legislation and Planning Policy	4
3. Methodology	5
3.1. Desktop Study	5
3.2. Field Survey	5
3.3. Diurnal Vantage Point Surveys	9
3.4. Nocturnal Vantage Point Surveys	9
3.5. Survey Details	9
3.6. Nomenclature	11
3.7. Limitations And Survey Constraints	11
4. Results	13
4.2. Field Survey	15
4.3. Primary Focal Species Recorded Within the Survey Area	17
5. Discussion and Recommendations	19
5.1. Common Crane	19
5.2. Other Primary Focal Species	19
5.3. Recommendations	19
6. Annexes	20
6.1. Annex 1: Figures	20
6.2. Annex 2: Survey Records of Primary Focal Species	25
6.3. Annex 3: Flight lines of species within Collision Risk Zone	35

Tables

Table 3-1: VP Locations.....	6
Table 3-2: Height bands for records bird species	8
Table 3-3: Vantage Point Survey Dates and Times	9
Table 4-1: Summary of Desk-top Data for Primary Focal Species.....	13
Table 4-2: Summary of Desk-top Data for Common Crane.....	14
Table 4-3: Flight Duration (number of birds x seconds) of Primary Focal Species	16
Table 4-4: Mallard Flight Durations.....	17
Table 4-5: Golden Plover Flight Durations	17

1. Executive Summary

- 1.1.1. Temple was commissioned by Meridian Solar Farm Limited in July 2025 to carry out a suite of summer bird Vantage Point surveys to provide baseline ecological data to inform the evolving Grid Connection design for the proposed Meridian Solar Farm Nationally Significant Infrastructure Project (NSIP), Lincolnshire (the Scheme). The intention is that the results of these surveys will be incorporated into the Environmental Impact Assessment (EIA), as part of the Development Consent Order (DCO) application.
- 1.1.2. Vantage Point surveys were undertaken at three locations to assess the importance of the Grid Connection Route (between the Solar Development Area and the proposed National Grid Weston Marsh B Substation) and an additional 1km radius (referred to collectively as the Survey Area) for breeding birds, with a particular focus on potential disturbance/redistribution effects and collision risk with overhead lines. Monthly visits were made between July and September 2025; however, given the main target species, common crane, are known to stay close to foraging areas and nesting sites early in the season, the surveys would have captured any juvenile and post breeding dispersal in the later summer months. The main findings were as follows:
- No common crane was recorded during the surveys;
 - A total of 47 species were recorded, including 11 Primary Focal Species, with movements in all directions across the Survey Area;
 - The main areas of activity were central and to the south of the Survey Area; and
 - Birds were recorded across all five height bands with 10 species observed flying within the collision risk zone of 25-50m. Two of these were primary focal species: mallard and snipe.
- 1.1.3. Consideration therefore needs to be given to ensure that areas occupied by Primary Focal Species avoid significant effects as a consequence of the proposed Grid Connection. The information contained within this report will be used to inform the design of the Scheme and the subsequent mitigation strategy as part of the EIA and DCO application.

2. Introduction

2.1. Background

- 2.1.1. Temple was commissioned by Meridian Solar Farm Limited in July 2025 to carry out a suite of summer Vantage Point (VP) Surveys to inform the scheme design and impact assessment associated with the grid connection element of the proposed Meridian Solar Farm, Lincolnshire, particularly in relation to common crane *Grus grus*. The survey covered land within the Grid Connection Route (henceforth referred to as 'the Survey Area'), as shown in Annex 1, Figure A1.1.
- 2.1.2. A Feasibility Study was initially undertaken in 2023 to determine suitable locations for the Vantage Points (VP)¹. The summer VP surveys followed previous VP surveys undertaken over winters 2023-2024² and 2024-2025³. The VP locations were kept the same, however the summer VP surveys were only conducted on VPs 1, 2 & 4 based on previous survey results, desk-top studies, incidental records, discussions with Natural England and habitat suitability for foraging common crane.

2.2. Scope of the Report

- 2.2.1. This report details the methods and findings of the summer bird Vantage Point (VP) surveys undertaken by Temple between July 2025 and September 2025. The aim was to identify and categorise the species moving into and out of the Survey Area and to map the flight paths and heights of key bird species.
- 2.2.2. The data gathered focussed on the use of the Grid Connection Route (VP 1, 2 & 4) and surrounding areas to identify key risk areas as design evolution and to inform impact assessment.
- 2.2.3. This report has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management⁴ and as

¹ Temple (2023) *Meridian Solar Farm, Lincolnshire. Wintering Bird Survey 2022-2023. Report for Meridian Solar Farm Ltd.* Temple, London

² Temple (2024) *Meridian Solar Farm, Lincolnshire. Wintering Bird Survey 2023-2024. Report for Meridian Solar Farm Ltd.* Temple, London

³ Temple (2025) *Meridian Solar Farm, Lincolnshire. Wintering Bird Vantage Point Survey 2024-2025. Report for Meridian Solar Farm Ltd.* Temple, London

⁴ CIEEM (2017). *Guidelines for Ecological Report Writing*, 2nd Edition. CIEEM, Winchester.

detailed in British Standard 42020:2013 Biodiversity – Code of Practice for Biodiversity and Development⁵.

2.3. Site Context and Status

- 2.3.1. The Meridian Solar Farm NSIP Project (the Scheme) consists of three elements, the Solar Development Areas, the Grid Connection Route, and the Inter-Array Connections. The Solar Development Areas, which would house the photovoltaic (PV) Arrays, co-located Battery Energy Storage System (BESS), on-site substations and associated supporting infrastructure, is approximately 1,615.90ha in size and is centred on Ordnance Survey National Grid reference TF 29441 19897, approximately 12km west of Wisbech and 11km south of Holbeach. The Grid Connection Route (the Study Area) covers a corridor from the Solar Development Areas to a point of connection (PoC) at the proposed 400kV National Grid Weston Marsh B substation, north of Weston (Annex 1, Figure A1.1).
- 2.3.2. The Study Area and the associated Survey Area comprised arable farmland, ditches and isolated pockets of plantation woodland, a small number of hedgerows, and parcels of scrub. Landscape features within the vicinity consisted of steep man-made agricultural drainage ditches typically bordering arable field boundaries with isolated pockets of plantation and a number of towns and villages.

2.4. Project Description

- 2.4.1. The Scheme would comprise the construction, operation (including maintenance) and decommissioning of a solar PV electricity generating station with associated infrastructure, including co-located Battery Energy Storage System (BESS), Inter-Array Connections to link the land parcels that form the Solar Development Areas, and an up to 13km overhead line Grid Connection (with one short undergrounded section) which would run north towards a point of connection (PoC) at the proposed Weston Marsh B National Grid Electricity Transmission (NGET) substation, to the north of Weston.

⁵ British Standards Institution (2013) BS 42020:2013. *Biodiversity – Code of practice for planning and development*. London BSI

2.5. Relevant Legislation and Planning Policy

- 1.1.1 The following key pieces of nature conservation legislation are relevant to this appraisal.
- The Conservation of Habitats and Species Regulations 2017 (as amended);
 - Wildlife and Countryside Act 1981 (as amended);
 - Natural Environment and Rural Communities Act 2006; and
 - Environment Act 2021.
- 2.5.1. 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 Scheme to mitigate impacts such as noise and effects on ecology.
- 2.5.2. The National Planning Policy Framework (NPPF)⁶ requires local authorities to avoid and minimise impacts on biodiversity and should provide net gains in biodiversity when taking planning decisions.
- 2.5.3. Other planning policies at the local level which are of relevance to this development include the South-East Lincolnshire Local Plan 2011 - 2036⁷ and the Lincolnshire Biodiversity Action Plan⁸.

⁶ Ministry of Housing, Communities and Local Government (2024). *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government, London. Available from: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf [Accessed 26/02/2026].

⁷ South East Lincolnshire Joint Strategic Planning Committee (2019). *South East Lincolnshire Local Plan 2011-2036. Adopted Plan | South East Lincolnshire - Local Plan*. Available at: www.southeastlincslocalplan.org [Accessed 26/02/2026].

⁸ Lincolnshire Biodiversity Partnership (2011). *Lincolnshire Biodiversity Action Plan 2011 - 2020* (3rd edition). Available at: <https://www.nelincs.gov.uk/wp-content/uploads/2016/02/201110-LincolnshireBAP-3rd-edition.pdf> [Accessed 26/02/2026].

3. Methodology

3.1. Desktop Study

- 3.1.1. An updated desktop study was undertaken for the summer VP surveys. This extended the previous search area from 15km to 20km for bird species. This was obtained from the Greater Lincolnshire Nature Partnership, the local Biological Records Centre. The full desk study, including designated sites, was completed for the previous reports^{1,2}, which should be read in conjunction with this report.
- 3.1.2. The Royal Society for the Protection of Birds (RSPB), The British Trust for Ornithology (BTO) and Lincolnshire Wildlife Trust (LWT) were all approached for consultation and requested any data they held for common cranes within the local area; however, limited responses were provided by LWT only.
- 3.1.3. Internationally important wildlife sites (IIWS) designated for birds were searched for on MAGIC⁹ within 20km of the Site. Other statutory designated sites were searched for on MAGIC within 2km of the Site.

3.2. Field Survey

- 3.2.1. The purpose of the VP surveys was to collate data to inform the evolving design for the Grid Connection, using a proportionate approach to data collection over a large area. It will inform a collision risk assessment of birds with proposed structures such as pylons and associated overhead lines and will inform the scope of any further survey work where necessary.
- 3.2.2. These surveys were intended to capture data on activity of common crane and other focal species during the summer, focusing on the juvenile dispersal period when there is likely to be a peak in crane movements as young birds may disperse from the nest and adults begin to move to wintering grounds.
- 3.2.3. The surveys recorded levels of activity of bird species within the airspace of the proposed overhead line infrastructure that present a potential collision hazard. In addition, these surveys provide information on the use of land within the Survey Area that could provide important resources for breeding birds, acting as Functionally Linked Land (FLL) in relation to IIWS, which could be subject to loss or disturbance as a result of the Grid Connection. This will also help to inform

⁹ <https://magic.defra.gov.uk/home.htm>

likely movement corridors for birds that could interact with the proposed overhead line infrastructure.

- 3.2.4. Activity patterns of birds within the Survey Area may also inform the assessment of the potential consequences of displacement and habitat loss or fragmentation. The Survey Area was chosen to ensure that movements of birds were identified.
- 3.2.5. The summer VP surveys were undertaken by a team of surveyors, all proficient in bird identification, survey techniques and VP methodology.
- 3.2.6. The Scheme is located within a broad area of relatively homogeneous habitat and landscape character Surveys were carried out using three VPs that afforded good views into the Survey Area. These are listed in Table 3-1 and shown in Annex 1 Figure A1.1

Table 3-1: VP Locations

Vantage Point	Location	Public Right of Way	OS Grid
VP1	Along South Holland Main Drain, east of Crowland Bypass, Whitehouse Farm	No	TF 27045 15913
VP2	Along Moulton Mere Bank, Ashgrove Farm	Within highways boundary	TF 29125 20845
VP4	Land east, along Clout Drove, Little Lodge Farm	Within highways boundary	TF 24893 13127

- 3.2.7. Methodologies for these surveys were based on NatureScot¹⁰ guidance on survey methods to inform onshore windfarm development assessments, which has been adapted to be appropriate to overhead lines. These methods were subject to minor modification given the scale of the area and the intention to refine designs for the Grid Connection to avoid significant negative impacts on birds as far as possible. Collision risk associated with overhead lines is presumed to be dependent on the level of flight activity over the proposed route and the ability of the birds to detect and avoid these lines. Birds that collide with overhead lines are likely to be killed or injured. This may, in turn, affect the maintenance of bird populations.

¹⁰ NatureScot (2025). Recommended bird survey methods to inform impact assessment of onshore wind farms, Version 2. Nature Scot. Available at: <https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms> [Accessed 26/02/2026].

- 3.2.8. The purpose of the VP surveys was to collect data to enable estimates to be made of:
- the time spent flying over the Survey Area;
 - the relative use of different parts of the Survey Area; and
 - the proportion of flying time spent within different flight bands.
- 3.2.9. Nine survey visits were carried out between July 2025 and September 2025, with approximately two weeks between each visit. Each VP was subject to two three-hour daytime survey visits per month equalling a total of 18 hours at each location, plus a single three-hour nocturnal survey per month.
- 3.2.10. Each visit was carried out by a pair of competent surveyors, to allow for full visibility of the viewshed¹¹ and recording of simultaneous movements of multiple birds and flocks. At each survey location, the VP was located in the same place with the same viewshed on each survey visit. Birds were recorded within an envelope of at least 2km from the VP location where topographical conditions allowed.
- 3.2.11. Surveys proceeded in inclement weather as it is important to record bird activity and behaviour in a range of conditions. However, surveys were avoided where visibility was less than 1km for prolonged periods (either from mist, heavy rain or low cloud-base), or in high winds (over Beaufort 5) as these conditions are likely to significantly impair the ability to record bird activity.
- 3.2.12. Weather conditions were recorded at least hourly, or more often if there were significant changes noted. Any disturbance events liable to affect the behaviour of birds within the viewshed, such as farming activities, people walking or low-flying aircraft, were also recorded.
- 3.2.13. The Target Species for the vantage point survey was common crane.
- 3.2.14. Additional information was gathered on 'Primary Focal Species' - those species which are of conservation concern and could be at risk of collision with overhead line structures. These included the following species/species groups:

¹¹ The term used to define the area visible from a defined vantage point.

- breeding species listed as qualifying features of the IIWS (common tern *Sterna hirundo* and little tern *Sternula albifrons*)
- all geese, swans, waders and ducks (except Canada goose *Branta canadensis*); and
- all Schedule 1 and Annex I raptors and owls (e.g. marsh harrier *Circus aeruginosus* and red kite *Milvus milvus*) were included to provide additional information of distribution at the request of Natural England.

3.2.15. Primary Focal Species were recorded for the duration they were in flight within view, with time of detection, height of flight and flight duration also recorded. The route of flight was plotted in the field onto 1:25 000 scale Ordnance Survey base maps. Bird flight height was estimated at the point of detection, and then at 15 second intervals, thereafter, using five height categories determined to correlate with the anticipated pylon cable heights.

Table 3-2: Height bands for records bird species

Height band 1	Height band 2	Height band 3	Height band 4	Height band 5
<10m	10-25m	25-50m	50-75m	>75m

3.2.16. Height band 3 corresponds to the top of the proposed pylons and sag of the cables, with bands 4 and 5 added as precautionary measure to allow for flexibility in design. The height bands were based on initial information provided by the Applicant.

3.2.17. Height band 3 is referred to as the Collision Risk Zone (CRZ) throughout the report.

3.2.18. The number and activity of Secondary Species (i.e. all species not listed as Primary Focal Species) was recorded in 15-minute periods throughout the VP surveys. Perched birds and birds on waterbodies were recorded once only on arrival. Thereafter, only flying birds and newly noticed perching/swimming birds were included in the activity summaries. Particular attention was given to flocking species in the area. Observing and recording Primary Focal Species took priority over Secondary Species activity summaries. Secondary species are briefly considered within this report, information can be made available if requested.

3.3. Diurnal Vantage Point Surveys

3.3.1. Diurnal visits to each VP were alternated between morning and afternoon, (whenever possible) starting within one hour after dawn or finishing within one hour before dusk. The surveyors used 8 or 10x42 binoculars and a 20-60x zoom telescope to assist with bird identification and scaled field maps to record the registrations and numbers of each bird species observed.

3.4. Nocturnal Vantage Point Surveys

3.4.1. Nocturnal surveys were undertaken any time after sunset following the guidelines described by Bird Survey and Assessment Steering Group¹². Each surveyor was equipped with a thermal imaging monocular, Pulsar Telos XP50 to aid bird detection within the landscape.

3.5. Survey Details

3.5.1. The times, dates and weather conditions of all survey visits are detailed in Table 3-3, below. Where a range is given, this refers to changes in condition from the start to the end of the survey.

Table 3-3: Vantage Point Survey Dates and Times

VP	Date	Start Time	Temp (°C)	Cloud Cover Oktas	Wind Beaufort Scale and Direction	Rain	Comment
VP1	21/07/2025	21:30	17	5	1 SW	0	Good visibility
	22/07/2025	18:00	19	7	1 NW	0	Good visibility
	07/08/2025	05:30	15	6	2 SE	1	Light showers at the start.
	21/08/2025	05:45	14	8	2 N	0	Good visibility
	18/08/2025	22:00	16	3	1 NE	0	Good visibility

¹² Bird Survey & Assessment Steering Group. (2025). Bird Survey Guidelines for assessing ecological impacts, v.1.1.0. <https://birdsurveyguidelines.org> [26/02/2026]

VP	Date	Start Time	Temp (°C)	Cloud Cover Oktas	Wind Beaufort Scale and Direction	Rain	Comment
	01/09/2025	16:30	19	5	4 SW	2	Some light rain at the end of survey.
	10/09/2025	16:30	16	7	4 S	5	Moderate rain showers throughout survey
	16/09/2025	20:20	10	2	2 W	0	Good visibility
	19/09/2025	06:30	16	3	3 S	0	Good visibility
VP2	24/07/2025	05:00	16	3	2 N	0	Good visibility
	04/08/2025	17:45	19	1	5 W	0	Good visibility
	07/08/2025	20:50	16	6	2 SE	5	Rain shower halfway through survey
	20/08/2025	18:00	16	7	2 NNE	0	Good visibility
	19/08/2025	21:15	15	8	3 NNE	1	Light drizzle
	03/09/2025	05:30	15	1	2 SE	2	Light shower
	11/09/2025	16:30	17	4	3 SW	0	Good visibility
	10/09/2025	20:00	14	7	4 SW	2	Small rain shower halfway through survey
	18/09/2025	16:35	18	8	4 S	0	Good visibility

VP	Date	Start Time	Temp (°C)	Cloud Cover Oktas	Wind Beaufort Scale and Direction	Rain	Comment
VP4	22/07/2025	21:30	18	7	2 NW	0	Good visibility
	23/07/2025	18:00	20	6	3 NE	0	Good visibility
	06/08/2025	05:00	11	0	2 W	0	Good visibility
	19/08/2025	18:00	16	7	2 NNE	0	Good visibility
	02/09/2025	05:30	12	1	2 S	0	Good visibility
	03/09/2025	20:00	16	1	3 SW	0	Good visibility
	12/09/2025	06:00	11	1	3 SW	0	Good visibility
	09/09/2025	20:20	15	4	1 SE	0	Good visibility
	16/09/2025	16:40	17	4	4 W	0	Good visibility

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

3.6. Nomenclature

3.6.1. Common names are used throughout the text of this report, with scientific names for all species included at the first mention only. The naming convention follows the Natural History Museums species dictionary¹³.

3.7. Limitations And Survey Constraints

3.7.1. Every effort has been made to provide robust and comprehensive data. However, the following limitations apply:

¹³ Natural History Museum. (undated). UK Species Inventory, <https://www.nhm.ac.uk/our-science/data/uk-species/index> [Accessed 26/02/2026].

- Surveys were broadly restricted to using public rights of way for access. However, given the relative homogeneity of the habitats within the landscape and the open flat character, this still allows for extensive lines of sight. This is deemed to result in a robust representation of the usage of the landscape by wintering species within the Survey Area and is not considered a limitation;
- 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 activity was recorded over the course of the surveys (using professional judgement) and the data collected is therefore considered sufficiently robust;
- The summer VP surveys were commissioned in July 2025 and therefore data could not be collected for months April to mid-July. However, given the main target species, common crane, are known to stay close to foraging areas and nesting sites early in the season, the surveys would have captured any juvenile and post breeding dispersal in the later summer months.
- The detectability of birds is significantly reduced during the nocturnal surveys and so the results should not be relied upon for detailed numerical evaluation such as collision risk modelling, but it provides relatively robust information to determine likely usage and levels of activity.

4. Results

Statutory Designated Sites

4.1.1. The following IIWS, for which the qualifying species include wintering or breeding birds, are located within 20km of the Study Area:

- Nene Washes Ramsar site and SPA; and
- The Wash Ramsar site and SPA.

4.1.2. The details of these designations can be found in the ES Appendix 9-10 Vantage Point Survey Report 2024-20253. Their locations are shown on Figure A1.2.

4.1.3. There are no SSSI or other statutory sites for nature conservation within a 2km buffer of the Study Areas for which birds are a primary reason for designation.

Species Data

4.1.4. The local record centre returned over 200,000 records of 118 notable species. Table 4-1 provides a summary of these for the Primary Focal Species.

Table 4-1: Summary of Desk-top Data for Primary Focal Species

Common Name	Scientific Name	No of Records	Last Year Recorded
Barn owl	<i>Tyto alba</i>	1,494	2023
Black-headed gull	<i>Chroicocephalus ridibundus</i>	15,219	2025
Black-tailed godwit	<i>Limosa limosa</i>	3,455	2023
Common crane	<i>Grus grus</i>	553	2025
Common tern	<i>Sterna hirundo</i>	4,417	2024
Curlew	<i>Numenius arquata</i>	3,827	2023
Gadwall	<i>Anas strepera</i>	6,440	2025
Garganey	<i>Anas querquedula</i>	824	2023
Greylag Goose	<i>Anser anser</i>	4,588	2023
Hobby	<i>Falco subbuteo</i>	704	2023
Lapwing	<i>Vanellus vanellus</i>	5,720	2024
Lesser black-backed gull	<i>Larus fuscus</i>	5,446	2025

Common Name	Scientific Name	No of Records	Last Year Recorded
Little tern	<i>Sternula albifrons</i>	102	2023
Mallard	<i>Anas platyrhynchos</i>	16,195	2025
Marsh harrier	<i>Circus aeruginosus</i>	4,533	2023
Merlin	<i>Falco columbarius</i>	1,627	2023
Mute swan	<i>Cygnus olor</i>	10,465	2025
Peregrine	<i>Falco peregrinus</i>	1,727	2023
Redshank	<i>Tringa totanus</i>	5,853	2023
Shelduck	<i>Tadorna tadorna</i>	96	2023
Shoveler	<i>Anas clypeata</i>	6,986	2025
Snipe	<i>Gallinago gallinago</i>	2,874	2023
Spoonbill	<i>Platalea leucorodia</i>	2,450	2023

4.1.5. A heat map showing the distribution of all the desktop study records for the 20km buffer from the Study Area is contained in Annex 1; Figure A1.3. A further heat map displaying the distribution of common crane only is displayed in Annex 1; Figure A1.4. These maps illustrate the geographic distribution of the species across the wider landscape, highlighting areas of frequent sightings. The warmer colours indicate a higher density in records with the colour colours indicating lower record numbers.

4.1.6. There are 553 common crane records from the data search which were focused around the known breeding location at Willow Tree Fen circa 8km west of Site and their wintering grounds at Frampton Marsh circa 15km north-east. Further records are scattered around the surrounding landscape; however, some grid references are only recorded to two-digit grid references and therefore only imply a rough location. Table 4-2 summarises the common crane data.

Table 4-2: Summary of Desk-top Data for Common Crane

Location	No of Records	Last Year Recorded	Distance from Stie	Highest Count
Deeping St Nicholas	3	2023	1km west	4

Location	No of Records	Last Year Recorded	Distance from Stie	Highest Count
Deeping Banks	9	2023	2km southwest	7
Spalding	1	2021	3km west	2
Pinchback	1	2016	4km northwest	1
Crowland area	12	2022	5km southwest	14
Willow Tree Fen	411	2025	8km west	16
Deeping St James	1	2021	9km southwest	4
Tongue End	18	2025	10km west	7
Twenty	3	2023	10km west	7
Quadring	1	2016	10km north	1
Baston Fen and Surrounding areas	63	2023	12km west	8
Deeping Lakes	3	2018	14km southwest	Undisclosed
Frampton Marsh	22	2023	15km northeast	3
Boston	1	2019	18km northeast	3
Dunsby	2	2018	18km northwest	1
Hubbert's Bridge	1	2022	18km north	1
Morton	1	2022	18km west	4

4.1.7. The Desktop data shows a higher concentration of birds along the western and northern side of the Site, although this is, in part, due to a number of waterbodies and areas regularly visited by local birdwatchers.

4.2. Field Survey

4.2.1. A total of 47 species were recorded, including 11 Primary Focal Species. Table 4-3 shows the total time spent by Primary Focal Species, expressed as number of birds multiplied by the number of seconds in the viewshed, from each VP. A list of the species recorded during the surveys is provided in Annex 2, including the numbers for each VP and peak counts.

Table 4-3: Flight Duration (number of birds x seconds) of Primary Focal Species

Primary Focal Species	VP1	VP2	VP4
Barn owl	195	30	1,290
Black-headed gull	3,000		
Golden Plover <i>Pluvialis apricaria</i>	21,855	158,160	13,500
Hobby	30	300	
Lapwing	1,800		
Lesser black-backed gull	60		240
Mallard	27,225	570	47,745
Marsh harrier	2,655		
Mute swan	240		1,065
Peregrine			45
Snipe			90
Red kite	435		450

- 4.2.2. No common crane was observed during the summer VP surveys.
- 4.2.3. Eleven of the Primary Focal Species were found to be utilising the areas within the VP viewsheds for commuting and foraging, with most activity around the southern section of the Survey Area. Many observations were below 25m, and therefore below the presumed height of the lower cables (25-50m).
- 4.2.4. Only mute swan was recorded flying only in the lower height band (0-10m).
- 4.2.5. Two Primary Focal Species recorded flying within the 25-50m band (CRZ). These were mallard and snipe.
- 4.2.6. No species observed in the Survey Area are listed as qualifying features for the Nene Washes SPA or Ramsar site, or the Wash SPA or Ramsar site for breeding status. However, snipe, mallard, lesser black-backed gull, black-headed gull and lapwing are listed as part of the wider breeding assemblage within the designated sites. Snipe and mallard were recorded within the collision risk height band.
- 4.2.7. Primary Focal Species were recorded flying in the CRZ at VP 1 & 4. A further seven secondary species were recorded flying within the CRZ across each VP location.

4.3. Primary Focal Species Recorded Within the Survey Area

Common crane

4.3.1. There were no observations of common crane during the summer surveys.

Snipe

4.3.2. A single snipe was recorded at VP 4 on two occasions. On the 19 August 2025, this species was observed flying within the CRZ for 15 seconds as it lifted from the ground. This equates to 8% of the total flight time during the surveys.

Mallard

4.3.3. Mallard was recorded at every VP location during the summer surveys. They were recorded flying within the CRZ height band at VP 1 & 4. Table 4-4 displays the total amount of seconds this species was observed within each height band.

Table 4-4: Mallard Flight Durations

VP	<10m	10-25m	25-50m	50-75m	>75m	Total	%
VP1	18,660	5,280	3,045	240		27,225	11
VP2	510	60				570	
VP4	39,840	6,045	1,860			47,745	3.8

Golden Plover

4.3.4. Golden plover was recorded at every VP location during the summer surveys, although these were restricted to the September survey visits only. They were recorded flying within the CRZ at VP 1 & 2. Table 4-5 shows the total amount of seconds this species was recorded within each height band. The largest flock of golden plover was observed at VP2 with a flock of 300 which were recorded on two separate surveys, flying frequently across the site and within the CRZ.

Table 4-5: Golden Plover Flight Durations

VP	<10m	10-25m	25-50m	50-75m	>75m	Total	%
VP1	5,655	8,400	7,800			21,855	35.6
VP2	9,000	72,600	76,500			158,160	48.3
VP4	3,000	10,500				13,500	

Other Species

- 4.3.5. Buzzard *Buteo buteo* was observed across all the VP locations. This species was recorded flying within the CRZ at VP1 & 2. Two birds spent 30 second flying within the CRZ at VP2 (57%) and a single bird spent 60 seconds within the CRZ at VP1 (16%).
- 4.3.6. Six other species were recorded flying within the CRZ which included:
- 1 x little egret (*Egretta garzetta*) – VP1
 - 3 x woodpigeon (*Columba palumbus*) – VP2
 - 3 x pied wagtail (*Motacilla alba*) – VP4
 - 160 x rook (*Corvus frugilegus*) at VP4
 - 16 x swallow (*Hirundo rustica*) at VP1
 - 20 x linnet (*Carduelis cannabina*) at VP4
- 4.3.7. The species listed above are non-priority species and are at low risk of collision with the cables due to their small size, numbers and agile flight.
- 4.3.8. The flight lines of focal species falling within the CRZ have been mapped and can be found in Annex 3; Figure A3.1.

5. Discussion and Recommendations

5.1. Common Crane

- 5.1.1. Common crane was not observed during the summer VP surveys. However, this species has a small/local population which is steadily increasing within the UK; within Lincolnshire, and there are breeding sites close by. This will bring a natural expansion within the species range and movements within the local landscape.
- 5.1.2. It is likely the Site would be used for foraging and commuting purposes for low numbers of this species.
- 5.1.3. Although none were recorded during the surveys, given the sensitivity of the local population of common crane, consideration should be given to the risk of birds straying into the cable array, which could result in a significant effect even if only small numbers of birds are impacted directly.

5.2. Other Primary Focal Species

- 5.2.1. Three species were observed flying within the CRZ (snipe, golden plover and mallard); these are listed within IWS designations as part of a wider species assemblage. Golden plover were only recorded during the September surveys and therefore indicate that this species was beginning to migrate to their wintering grounds.

5.3. Recommendations

- 5.3.1. These data will feed into the on-going collision-risk modelling which is required to evaluate the potential impact of the proposed overhead cables on common crane and the wider ornithological assemblages. Alongside the updated desk study, this will help inform the impact assessment for the Environmental Statement.
- 5.3.2. Where potential impacts are predicted following the collision risk assessment, mitigation is likely to take the form of diverters/ line markers that are effective in low/ no-light conditions. A review of marker options and their likely effectiveness in relation to the relevant species will be undertaken if required to inform mitigation.

6. Annexes

6.1. Annex 1: Figures

Figure A1.1: Site Map Showing Location of the Study Area and Locations of the VPs

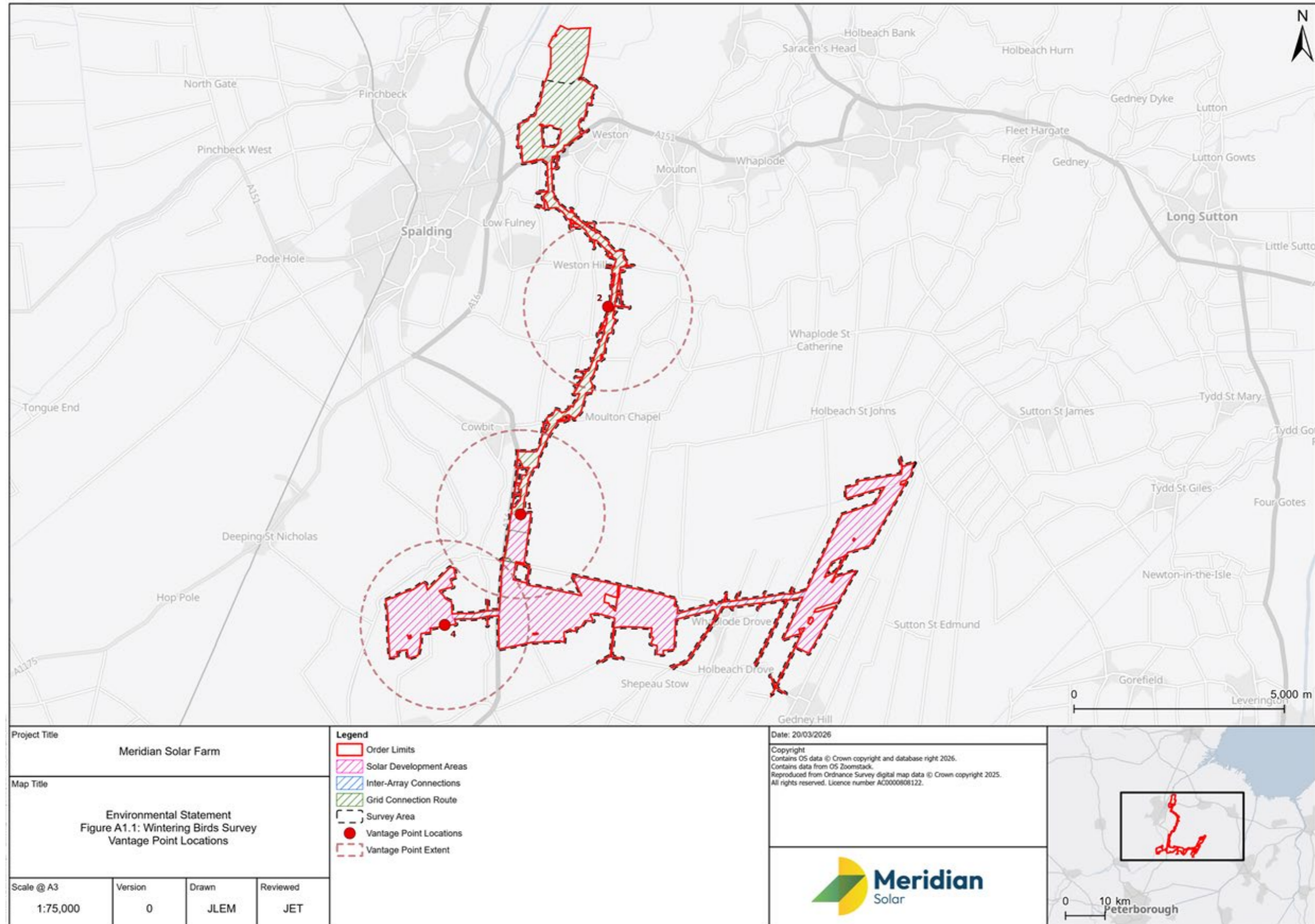


Figure A1.2: International Designated Sites, Local Designated Sites and Priority Habitats

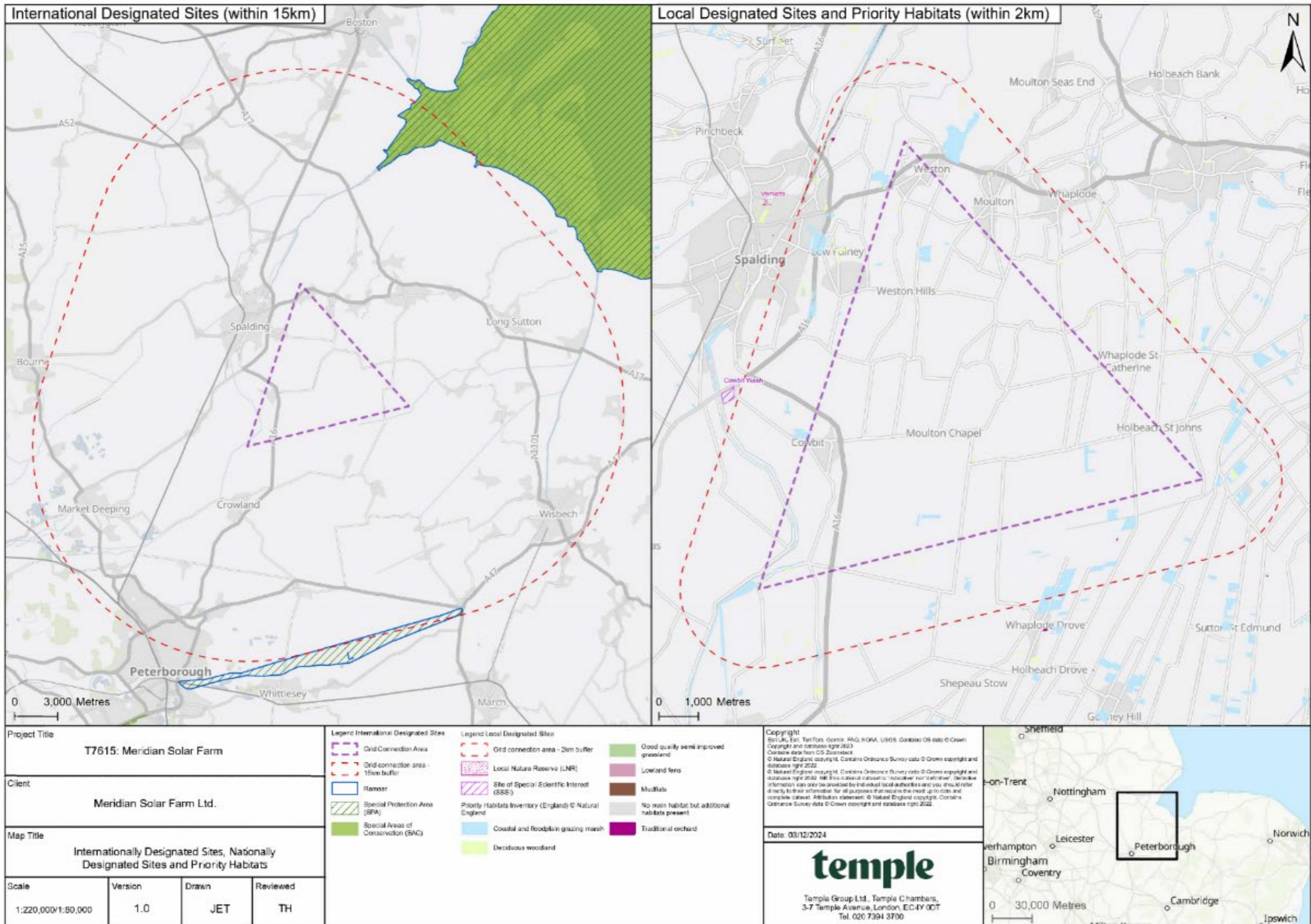


Figure A1.3: Heat Map Showing Species Density from the Desktop Data

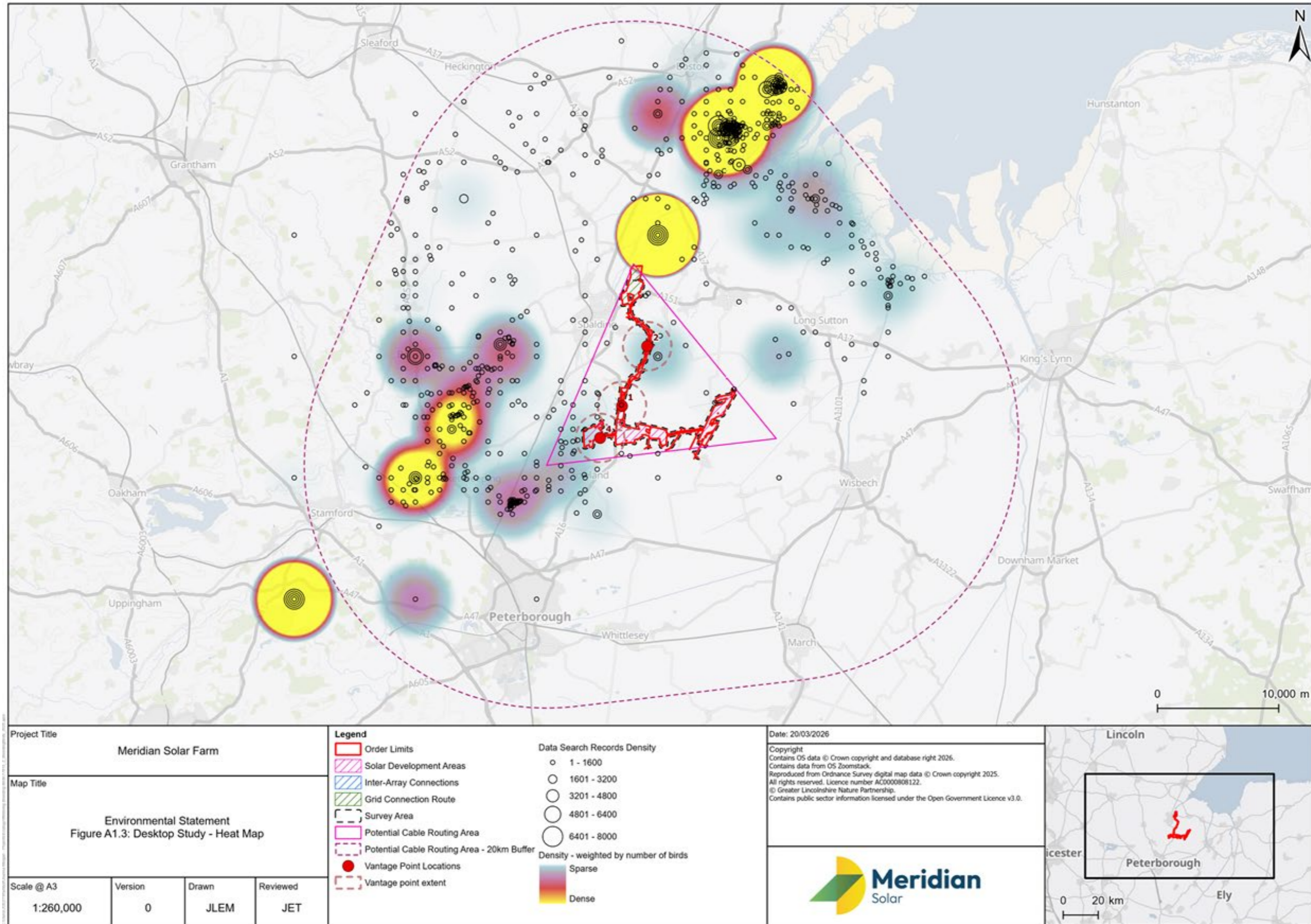
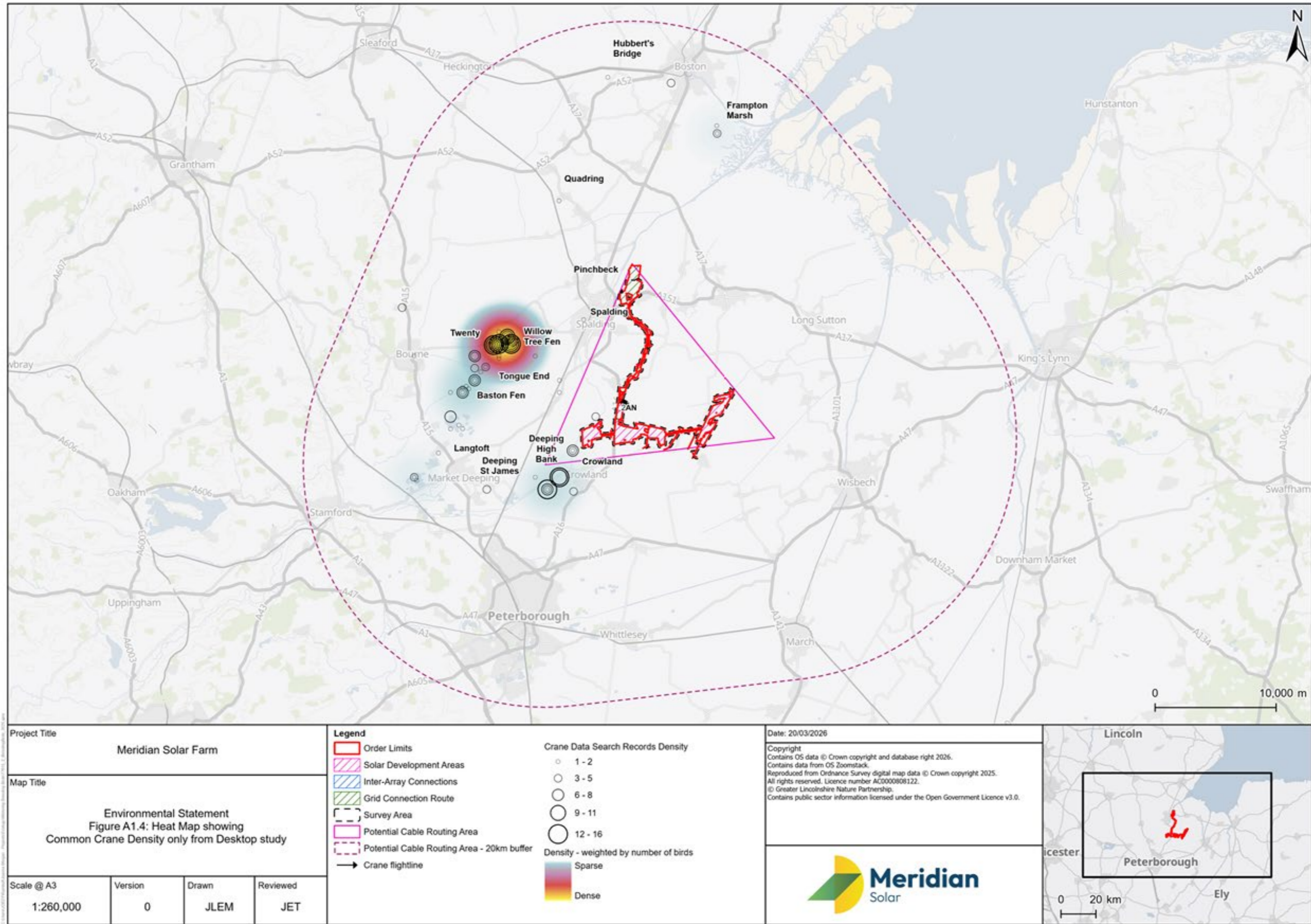


Figure A1.4: Heat Map Showing Common Crane Density only from the Desktop Study



6.2. Annex 2: Survey Records of Primary Focal Species

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
07/08/2025	Dawn	Black-headed gull	1	4	60	<10m
07/08/2025	Dawn	Black-headed gull	1	2	60	10-25m
10/09/2025	Dusk	Black-headed gull	1	40	60	<10m
19/09/2025	Dawn	Black-headed gull	1	4	60	<10m
22/07/2025	Nocturnal	Barn owl	4	1	240	<10m
22/07/2025	Nocturnal	Barn owl	4	1	180	<10m
23/07/2025	Nocturnal	Barn owl	4	1	120	10-25m
07/08/2025	Nocturnal	Barn owl	2	1	30	<10m
18/08/2025	Nocturnal	Barn owl	1	1	30	<10m
03/09/2025	Nocturnal	Barn owl	4	1	45	10-25m
09/09/2025	Nocturnal	Barn owl	4	2	240	<10m
09/09/2025	Nocturnal	Barn owl	4	1	240	<10m
16/09/2025	Nocturnal	Barn owl	1	1	60	<10m
16/09/2025	Nocturnal	Barn owl	1	1	120	<10m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
04/08/2025	Dusk	Buzzard	2	1	45	10-25m
07/08/2025	Dawn	Buzzard	1	1	1	<10m
07/08/2025	Dawn	Buzzard	1	1	15	<10m
07/08/2025	Dawn	Buzzard	1	1	15	<10m
07/08/2025	Dawn	Buzzard	1	1	30	10-25m
19/08/2025	Nocturnal	Buzzard	4	1	30	10-25m
21/08/2025	Dawn	Buzzard	1	2	45	10-25m
01/09/2025	Dusk	Buzzard	1	1	60	25-50m
03/09/2025	Dawn	Buzzard	2	2	30	25-50m
10/09/2025	Dusk	Buzzard	1	2	60	10-25m
12/09/2025	Dawn	Buzzard	4	1	90	10-25m
12/09/2025	Dawn	Buzzard	4	1	15	<10m
16/09/2025	Dusk	Buzzard	4	1	45	10-25m
09/09/2025	Nocturnal	Golden plover	4	0	0	<10m
10/09/2025	Dusk	Golden plover	1	10	15	25-50m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
10/09/2025	Dusk	Golden plover	1	6	15	25-50m
10/09/2025	Dusk	Golden plover	1	24	150	25-50m
10/09/2025	Dusk	Golden plover	2	10	240	<10m
10/09/2025	Dusk	Golden plover	1	18	60	<10m
10/09/2025	Dusk	Golden plover	2	10	60	<10m
10/09/2025	Dusk	Golden plover	2	15	60	10-25m
11/09/2025	Dusk	Golden plover	2	300	240	25-50m
16/09/2025	Dusk	Golden plover	4	100	135	10-25m
18/09/2025	Dawn	Golden plover	2	300	240	25-50m
18/09/2025	Dawn	Golden plover	2	28	45	10-25m
18/09/2025	Dawn	Golden plover	2	100	90	25-50m
19/09/2025	Dawn	Golden plover	1	3	45	<10m
19/09/2025	Dawn	Golden plover	1	200	60	25-50m
19/09/2025	Dawn	Golden plover	1	20	240	25-50m
24/07/2025	Dawn	Hobby	2	1	90	<10m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
04/08/2025	Dusk	Hobby	2	1	15	<10m
01/09/2025	Dusk	Hobby	1	1	30	<10m
03/09/2025	Dawn	Hobby	2	2	15	10-25m
18/09/2025	Dawn	Hobby	2	2	15	<10m
18/09/2025	Dawn	Hobby	2	2	15	<10m
18/09/2025	Dawn	Hobby	2	1	15	<10m
18/09/2025	Dawn	Hobby	2	1	15	<10m
18/09/2025	Dawn	Hobby	2	3	15	<10m
18/09/2025	Dawn	Hobby	2	1	30	<10m
23/07/2025	Dusk	Red kite	4	1	180	<10m
10/09/2025	Dusk	Red kite	1	1	60	10-25m
10/09/2025	Dusk	Red kite	1	1	45	<10m
10/09/2025	Dusk	Red kite	1	1	90	10-25m
12/09/2025	Dawn	Red kite	4	1	105	<10m
12/09/2025	Dawn	Red kite	4	1	60	10-25m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
16/09/2025	Dusk	Red kite	4	1	105	<10m
19/09/2025	Dawn	Red kite	1	1	240	10-25m
18/02/2025	Dawn	Lapwing	4	30	60	10-25m
06/08/2025	Dawn	Lesser black-backed gull	4	1	60	10-25m
07/08/2025	Dawn	Lesser black-backed gull	1	1	60	10-25m
12/09/2025	Dawn	Lesser black-backed gull	4	3	60	10-25m
21/07/2025	Nocturnal	Mallard	1	60	240	<10m
22/07/2025	Dusk	Mallard	1	12	240	<10m
22/07/2025	Dusk	Mallard	4	8	180	25-50m
22/07/2025	Dusk	Mallard	4	2	60	10-25m
23/07/2025	Dusk	Mallard	4	2	120	10-25m
23/07/2025	Dusk	Mallard	4	4	120	25-50m
24/07/2025	Dawn	Mallard	2	1	60	10-25m
04/08/2025	Dusk	Mallard	2	3	30	<10m
06/08/2025	Dawn	Mallard	4	7	240	<10m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
06/08/2025	Dawn	Mallard	4	12	30	25-50m
06/08/2025	Dawn	Mallard	4	2	90	<10m
07/08/2025	Dawn	Mallard	1	13	60	10-25m
07/08/2025	Dawn	Mallard	1	1	60	10-25m
07/08/2025	Dawn	Mallard	1	2	60	10-25m
07/08/2025	Dawn	Mallard	1	7	60	10-25m
07/08/2025	Dawn	Mallard	1	1	60	<10m
07/08/2025	Dawn	Mallard	1	44	60	25-50m
07/08/2025	Dawn	Mallard	1	14	60	10-25m
21/08/2025	Dawn	Mallard	1	1	15	<10m
21/08/2025	Dawn	Mallard	1	3	30	10-25m
21/08/2025	Dawn	Mallard	1	11	30	25-50m
21/08/2025	Dawn	Mallard	1	5	0	<10m
21/08/2025	Dawn	Mallard	1	2	15	10-25m
21/08/2025	Dawn	Mallard	1	5	15	10-25m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
21/08/2025	Dawn	Mallard	1	3	15	<10m
21/08/2025	Dawn	Mallard	1	2	30	<10m
01/09/2025	Dusk	Mallard	1	7	60	10-25m
01/09/2025	Dusk	Mallard	1	3	60	10-25m
01/09/2025	Dusk	Mallard	1	1	45	25-50m
01/09/2025	Dusk	Mallard	1	8	30	50-75m
01/09/2025	Dusk	Mallard	1	2	15	25-50m
02/09/2025	Dawn	Mallard	4	2	15	<10m
02/09/2025	Dawn	Mallard	4	2	30	25-50m
02/09/2025	Dawn	Mallard	4	7	45	10-25m
02/09/2025	Dawn	Mallard	4	11	90	<10m
02/09/2025	Dawn	Mallard	4	13	60	<10m
02/09/2025	Dawn	Mallard	4	6	30	10-25m
02/09/2025	Dawn	Mallard	4	21	45	10-25m
02/09/2025	Dawn	Mallard	4	40	60	<10m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
03/09/2025	Dusk	Mallard	4	33	135	10-25m
09/09/2025	Dusk	Mallard	4	6	15	10-25m
10/09/2025	Dusk	Mallard	1	1	45	10-25m
10/09/2025	Dusk	Mallard	1	5	30	<10m
10/09/2025	Dusk	Mallard	1	5	45	10-25m
10/09/2025	Dusk	Mallard	1	5	30	<10m
10/09/2025	Dusk	Mallard	1	4	60	10-25m
10/09/2025	Dusk	Mallard	1	6	30	10-25m
10/09/2025	Dusk	Mallard	1	3	120	10-25m
10/09/2025	Nocturnal	Mallard	2	4	15	<10m
12/09/2025	Dawn	Mallard	4	8	15	10-25m
12/09/2025	Dawn	Mallard	4	10	15	10-25m
12/09/2025	Dawn	Mallard	4	75	240	<10m
12/09/2025	Dawn	Mallard	4	120	60	10-25m
16/09/2025	Dusk	Mallard	4	7	30	10-25m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
16/09/2025	Dusk	Mallard	4	4	30	10-25m
18/09/2025	Dawn	Mallard	2	12	30	<10m
19/09/2025	Dawn	Mallard	1	8	45	<10m
19/09/2025	Dawn	Mallard	1	3	30	<10m
19/09/2025	Dawn	Mallard	1	7	30	10-25m
23/07/2025	Dusk	Marsh harrier	4	1	120	<10m
23/07/2025	Dusk	Marsh harrier	4	1	240	10-25m
06/08/2025	Dawn	Marsh harrier	4	1	240	<10m
06/08/2025	Dawn	Marsh harrier	4	1	180	10-25m
19/08/2025	Dusk	Marsh harrier	4	2	240	10-25m
19/08/2025	Dusk	Marsh harrier	4	1	240	10-25m
12/09/2025	Dawn	Marsh harrier	4	1	240	<10m
12/09/2025	Dawn	Marsh harrier	4	2	75	<10m
12/09/2025	Dawn	Marsh harrier	4	1	240	<10m
12/09/2025	Dawn	Marsh harrier	4	2	120	<10m

Date	Survey Type	BTO Species code	VP	No. of birds	Duration (seconds)	Max Height Band
12/09/2025	Dawn	Marsh harrier	4	2	135	<10m
16/09/2025	Dusk	Marsh harrier	4	1	240	<10m
06/08/2025	Dawn	Mute swan	4	1	60	<10m
21/08/2025	Dawn	Mute swan	1	10	0	<10m
01/09/2025	Dusk	Mute swan	1	2	30	<10m
12/09/2025	Dawn	Mute swan	4	2	15	<10m
16/09/2025	Dusk	Mute swan	4	2	180	<10m
16/09/2025	Dusk	Mute swan	4	3	135	<10m
16/09/2025	Dusk	Mute swan	4	2	105	<10m
19/09/2025	Dawn	Mute swan	1	1	105	<10m
19/09/2025	Dawn	Mute swan	1	1	45	<10m
19/09/2025	Dawn	Mute swan	1	1	30	<10m
02/09/2025	Dawn	Peregrine	4	1	45	10-25m
19/08/2025	Dusk	Snipe	4	1	30	25-50m
03/09/2025	Dusk	Snipe	4	1	60	<10m

6.3. Annex 3: Flight lines of species within Collision Risk Zone

A3.1: All Flight Lines Within Collision Risk Zones Across all Surveys and Species

