

Springwell Solar Farm

Environmental Statement

Appendix 7.3: Wintering Bird Survey

Volume 3

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November 2024
Springwell Energyfarm Ltd

APFP Regulation 5(2)(a)
Planning Act 2008
Infrastructure Planning
(Applications: Prescribed Forms
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1. Introduction

1.1. Purpose of this report

1.1.1. This report presents the results of the survey for wintering birds undertaken for the proposed Springwell Solar Farm, located on land near Ashby de la Launde, Lincolnshire (central National Grid Reference TF056569). The 'survey area' included the area within the proposed Springwell Solar Farm's Order Limits plus a wider area. The survey area is shown in **Figure 1** of this report. This wintering bird survey was carried out on behalf of the Applicant.

1.2. Ecological context

1.2.1. The survey area was located on land surrounding the villages of Blankney, Scopwick, and Ashby de la Launde in the district of North Kesteven, Lincolnshire. The survey area was dominated by agricultural land and improved grassland with accompanying hedgerows, interspersed with multiple small to medium sized areas of broadleaved woodland. There were several ponds within the survey area. Streams and ditches intersect many of the agricultural fields, although most were dry at the time of survey.

1.2.2. The surrounding landscape is largely arable with a mixture of villages, farm complexes, woodland, hedgerows and some scattered residential properties, as well as the RAF Digby military base to the north-west.

1.2.3. The Wash Special Protection Area (SPA) and Ramsar site is located approximately 35km to the south-east of the site at its closest point.

1.2.4. Previous surveys carried out on site include Preliminary Ecological Appraisal (PEA) surveys in 2022 and 2023, shown in **ES Volume 3, Appendix 7.1: Preliminary Ecological Appraisal [EN010149/APP/6.3]** and Breeding Bird Survey in 2023 shown in **ES Volume 3, Appendix 7.2; Breeding Bird Survey [EN010149/APP/6.3]**. The PEA did not identify the site as being suitable for supporting important wintering bird assemblages, however through subsequent consultation with North Kesteven District Council it was agreed that a wintering bird survey should be conducted to inform the assessment of the wintering bird assemblage.

1.3. Proposed Development

1.3.1. The Proposed Development comprises the construction, operation and maintenance of Solar Photovoltaic (PV) generating modules, energy storage facilities, and grid connection infrastructure, across a proposed site in North Kesteven, Lincolnshire.

- 1.3.2. The Proposed Development is located within the administrative boundary of North Kesteven District Council and Lincolnshire County Council assessment is based on the survey area as shown in **Figure 1** of this report. The proposals are for the installation of the Solar PV development and associated infrastructure.

2. Legislation and Guidance

2.1. Overview

2.1.1. Relevant legislation and guidance relating to wintering birds is summarised below. This legislation and guidance have been used to inform the evaluation of the conservation status of the species recorded during the desk study and field surveys, and when assessing the importance of the wintering bird populations present.

2.2. Relevant Legislation, Planning policy and Guidance

European Commission Birds Directive (2009/147/EC)

2.2.1. Certain UK bird species (including some wintering species) are protected at an international level under the European Commission (EC) Directive on the Conservation of Wild Birds 2009 (2009/147/EC) **[Ref-1]**. These species are afforded enhanced legal protection and European Union member states have a responsibility to maintain populations of these species. This Directive is transposed into English law through the Conservation of Habitats and Species Regulations 2017 (as amended) **[Ref-1]**.

2.2.2. Species listed on **Annex 1** of the Directive are those for which the UK Government is required to take special conservation measures (including the designation of land as Special Protection Areas (SPAs)) to conserve populations of these species throughout their distributions. These sites form part of the UK's national site network of core sites that are protected for rare and threatened species.

2.2.3. Bird species listed on **Annex 1** of the Directive are those which are deemed to be:

- in danger of extinction;
- vulnerable to specific changes to their habitats;
- considered rare due to their small population sizes and/or restricted local distributions; and
- in need of particular attention due to the specific nature of their habitat requirements.

Wildlife and Countryside Act 1981 (as amended)

2.2.4. Wild birds are protected in the UK under Section 1 of the Wildlife and Countryside Act (WCA) 1981 (as amended) **[Ref-3]**. Under this legislation it is an offence to:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; and
- take or destroy an egg of any wild bird.

2.2.5. In addition, certain species are listed on Schedule 1 of the WCA and receive special protection under Sections 1(4) and 1(5), which confer penalties where the above-mentioned offences are committed, in addition to making it an offence to:

- disturb any such bird whilst building its nest or whilst it is in or near a nest containing eggs or dependent young; and
- disturb the dependent young of such a bird.

2.2.6. As this legislation relates to offences and penalties during the breeding season only, further reference to Schedule 1 of the WCA is not made in this report.

Natural Environment and Rural Communities Act 2006

2.2.7. The Natural Environment and Rural Communities (NERC) Act 2006 **[Ref-4]** requires local and governmental authorities and departments to have regard to the conservation of biodiversity and a range of measures associated with public rights of way and other rural affairs.

2.2.8. Forty-nine bird species are listed as being Species of Principal Importance for conservation in England under Section 41 (S41) of the NERC Act 2006, and as such they are a material consideration during the planning process. These Species of Principal Importance (SPI) are those identified as requiring action under the UK Biodiversity Action Plan (UKBAP), which continue to be regarded as species of conservation priority under the UK Post-2010 Biodiversity Framework (which succeeded the UKBAP in July 2012) **[Ref-6]**.

Birds of Conservation Concern

2.2.9. The Birds of Conservation Concern (BoCC) Red, Amber and Green lists categorise the UK's regularly occurring bird species according to their level of conservation concern **[Ref.5]**. Although these listings confer no legal protection, they are useful in guiding conservation action for individual species when birds may be affected by plans or projects.

Red list species

- 2.2.10. These are species of high conservation concern, including:
- species that are globally threatened according to the International Union for the Conservation of Nature (IUCN) criteria;
 - species with a historical breeding decline that have not shown a substantial recent recovery;
 - species that have shown a severe breeding decline over the last 25 years or longer term;
 - species that have shown a severe breeding range decline over the last 25 years or longer term; and
 - species whose non-breeding populations have declined over the last 25 years or longer term.

Amber list species

- 2.2.11. These are species of medium conservation concern, including:
- species of European Conservation Concern;
 - species whose populations have declined historically but which have made a substantial recent recovery;
 - species whose breeding populations have declined moderately over the last 25 years or longer term;
 - species that have shown a moderate breeding range decline over the last 25 years or longer term;
 - species whose non-breeding populations have declined moderately over the last 25 years or longer term; and
 - rare breeders or non-breeding rarity species with internationally important or localised populations.

Green list species

- 2.2.12. Green list species fulfil none of the criteria detailed above. As such, they have stable or increasing populations and are not currently of conservation concern.
- 2.2.13. Non-native species such as Canada goose (*Branta canadensis*) are not afforded Red, Amber, or Green list status.

Lincolnshire Biodiversity Action Plan

2.2.14. The Lincolnshire Biodiversity Action Plan (2011-2020 3rd ed.) [Ref.6] includes a species action plan (SAP) for farmland birds, which includes the following species:

- grey partridge (*Perdix perdix*);
- lapwing (*Vanellus vanellus*);
- curlew (*Numenius arquata*);
- snipe (*Gallinago gallinago*);
- redshank (*Tringa totanus*);
- turtle dove (*Streptopelia turtur*);
- barn owl (*Tyto alba*);
- skylark (*Alauda arvensis*);
- starling (*Sturnus vulgaris*);
- tree sparrow (*Passer montanus*);
- yellow wagtail (*Motacilla flava*);
- bullfinch (*Pyrrhula pyrrhula*);
- linnet (*Linaria cannabina*);
- yellowhammer (*Emberiza citrinella*);
- corn bunting (*Miliaria calandra*); and
- reed bunting (*Emberiza schoeniclus*).

2. Methods

2.3. Desk study

- 2.3.1. To provide supplementary data on bird species known to be present in the vicinity of the study area, the following baseline data was obtained:
- 2.3.2. A data report was also obtained from the British Trust for Ornithology [**Ref-7**]. This provided records from relevant 1km and 10km grid squares from 2007-2011 and 2019-2023; specifically, two 10km grid squares (TF05 and TF06) and 36 1km grid squares.
- 2.3.3. MAGIC (the Multi-Agency Geographic Information website) [**Ref-8**] was consulted to view statutory designated nature conservation sites designated for features of ornithological interest within 10km of the Order Limits for internationally designated sites and 2km of the Order Limits for nationally designated sites.
- 2.3.4. The relevant local environmental records centre, Greater Lincolnshire Nature Partnership [**Ref-9**], was consulted in January 2023 for records of protected and notable species within 2km of the Order Limits.
- 2.3.5. The results of these data searches primarily cover breeding bird records and are included and discussed in the Preliminary Ecological Appraisal Report, detailed in **ES Volume 3, Appendix 7.1: Preliminary Ecological Appraisal [EN010149/APP/6.3]** and Breeding Bird Survey report, detailed in **ES Volume 3, Appendix 7.2: Breeding Bird Survey [EN010149/APP/6.3]** thus they are not replicated here and desk study data will not be considered further.

2.4. Field surveys

- 2.4.1. The field surveys for wintering birds were undertaken during November 2023, December 2023 and January 2024 inclusive. The field surveys comprised three visits (i.e. one per month from November to January inclusive). A fourth visit in February was not considered necessary following assessment of the results of the first three visits, see **Section 4** of this report for details.
- 2.4.2. Due to its large size, the survey area was divided into nine sub-areas or transects for the purpose of the field surveys, which each sub-area being surveyed once per visit. Surveyors avoided undertaking adjacent transects on the same day, to minimise double counting of birds.
- 2.4.3. The surveys involved suitably experienced ornithologists walking pre-determined transect routes throughout the site during the daytime, mapping bird species encountered (either visually or through their

vocalisations) using standard British Trust for Ornithology (BTO) species codes and behaviour notation [Ref-10] and [Ref-11]. The transect routes were interspersed with stops, during which the ornithologist scanned for birds using optical equipment. Birds of particular note observed within 100m of the site, such as flocks of waders, were also recorded. Special attention was given to undertaking counts of any notable assemblages of feeding and/or roosting birds.

- 2.4.4. Survey visits were undertaken in suitable weather conditions and at a range of times of day, avoiding extreme temperatures, heavy rain, snow or fog during which bird activity may be atypical and/or surveying may be impractical.
- 2.4.5. The dates, timings and weather conditions for the survey visits are listed in **Appendix 1** of this report.

2.5. Interpretation of survey results

- 2.5.1. In order to assess the importance of the wintering bird populations recorded during the field surveys, interpretation of the survey results considered the following:
- the conservation statuses of the species recorded (i.e. their inclusion on any of the legislation or conservation status categories described in **Section 2** of this report);
 - the sizes of the populations recorded (i.e. species abundance);
 - the overall diversity of the wintering bird assemblage recorded; and
 - the spatial patterns of wintering bird usage within the site, including areas and habitat types of particular importance to wintering birds

Conservation status

- 2.5.2. The assessment of the importance of the wintering bird populations recorded took into consideration the conservation statuses of the species recorded. Species afforded special statutory protection or included on lists of species of conservation interest were evaluated. These included:
- EC Birds Directive (2009/147/EC) Annex 1 species;
 - NERC Act 2006 S41 Species of Principal Importance;
 - BoCC Red and Amber list species; and
 - Relevant SAP species for Lincolnshire.

Species abundance

- 2.5.3. The importance of the wintering bird populations recorded was assessed in the context of the sizes of those populations relative to international, national and regional population estimates for the species in question. National 1% population thresholds (i.e. the size at which a population is assessed as being of national importance, as it comprises over 1% of the national population for a given species) were calculated from the national population estimates detailed in APEP 4 Population estimates of birds in Great Britain and the United Kingdom [Ref-12]. International 1% population thresholds (i.e. the size at which a population is assessed as being of international importance, as it comprises over 1% of the international population for a given species) were obtained from Wetlands International.
- 2.5.4. Assessment of county, district or local importance was based on professional judgement and in reference to county population data detailed within the latest county bird report – Lincolnshire Bird Report 2021 [Ref-7].

Species diversity

- 2.5.5. The overall diversity of the wintering bird assemblage was assessed based on the number of species recorded within the Site during the survey.

Site usage by wintering birds

- 2.5.6. To enable spatial analysis of wintering bird activity recorded during the surveys, such as comparison of peak counts between different areas of the site, and identification of areas of particular importance to important populations, the Site was split into three distinct areas – east, central and west. These area references are indicated in Figure 1 from this report and referred to when evaluating site usage by wintering birds in Section 5.5 from this report.

2.6. Limitations

- 2.6.1. Field surveys for wintering birds were undertaken at the appropriate time of year to record the wintering species potentially present on site and took place at appropriate times of day. Survey visits were undertaken in suitable weather conditions, with occasional light rain, fog and frost encountered during the surveys considered to be insufficient to significantly affect the bird populations recorded.
- 2.6.2. The surveys were carried out in an unusually mild winter (mild for several consecutive months, see **Appendix 1** for weather conditions) therefore surveys may not have recorded peak/typical levels of activity for some

species, though this is considered unlikely to have significantly affected the results.

- 2.6.3. When calculating the peak count for each survey visit, the possibility of double-counting individuals or groups of birds exists where surveys were undertaken on different portions of the survey across multiple days. For mobile species (e.g. waders and birds of prey), the potential for double-counting has been considered when interpreting the survey results.
- 2.6.4. It should be noted that ecological features (e.g., bird populations) are transient, and that the distributions of habitats and species may be subject to change. As such, in line with Chartered Institute of Ecology and Environmental Management (CIEEM) guidance, the ecological survey data presented in this report are considered valid for at least two years **[Ref-13]** after which if any significant changes have occurred to the habitats present then it may be necessary for further field surveys to be undertaken.

3. Results

3.1. Field surveys

3.1.1. A total of 67 bird species were recorded during the field surveys of the Site between November 2023 and January 2024 inclusive. The peak counts for the species recorded on each of the three visits are summarised in **Table 1** below, with descriptions provided for each.

Table 1 Summary of species recorded during the 2023/24 wintering bird field surveys

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Pink-footed Goose	<i>Anser brachyrhynchus</i>	-	130	-	A single fly-over flock during visit 2.
Mallard	<i>Anas platyrhynchos</i>	-	3	4	Present on two small ponds/waterbodies on site
Red-legged Partridge	<i>Alectoris rufa</i>	23	20	25	Pairs and small coveys were frequently encountered across all three areas. Likely released for shooting
Grey Partridge	<i>Perdix perdix</i>	27	34	63	Small coveys of up to 14 birds were frequently encountered across all three areas, particularly in the central area.
Pheasant	<i>Phasianus colchicus</i>	-	-	-	Frequently encountered across the site where they are released for shooting, as such no formal counts were taken.
Sparrowhawk	<i>Accipiter nisus</i>	1	3	-	Occasionally encountered hunting across the site.
Marsh Harrier	<i>Circus aeruginosus</i>	-	1	-	A female bird was circling over the north-east corner

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
					of the eastern area during visit 2.
Hen Harrier	<i>Circus cyaneus</i>	-	1	1	Ringtail birds (young or female) were hunting on the central and western areas on visits 2 and 3 respectively.
Red Kite	<i>Milvus milvus</i>	3	2	6	Frequently encountered in singles or pairs across the site.
Buzzard	<i>Buteo buteo</i>	12	16	12	Frequently encountered across the site.
Moorhen	<i>Gallinula chloropus</i>	-	-	1	A single bird was on a pond in the south-east corner of the central area during visit 3.
Coot	<i>Fulica atra</i>	-	2	3	Up to 3 birds were in the disused quarry next to RAF Digby during visits 2 and 3.
Lapwing	<i>Vanellus vanellus</i>	-	27	73	Two small flocks of up to 36 and 16 birds respectively were in resting in fields in the central area during visits 2 and 3. A flock of 21 flew south over the eastern area during visit 3.
Golden Plover	<i>Pluvialis apricaria</i>	109	-	31	A single flock of up to 109 birds was resting in a field in the central area during visits 1 and 3.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Snipe	<i>Gallinago gallinago</i>	3	2	1	Occasionally flushed from wet field margins in the central area.
Woodcock	<i>Scolopax rusticola</i>	-	2	4	Occasionally flushed from hedgerows in the central and western areas.
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	111	36	30	Regularly encountered in small to medium sized flocks, maximum 75, alongside other gulls in ploughed or stubble fields across the site.
Common Gull	<i>Larus canus</i>	11	181	238	Regularly encountered in small to large sized flocks, maximum 180, alongside other gulls in ploughed or stubble fields across the site.
Great Black-backed Gull	<i>Larus marinus</i>	-	-	1	A single adult bird was with feeding with other gulls in a recently ploughed field in the western area during visit 3.
Herring Gull	<i>Larus argentatus</i>	6	78	21	Regularly encountered in small to medium sized flocks, maximum 49, alongside other gulls in ploughed or stubble fields across the site.
Lesser Black-backed Gull	<i>Larus fuscus</i>	3	4	-	Occasionally encountered amongst other gulls in ploughed or stubble fields across the site.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Stock Dove	<i>Columba oenas</i>	178	208	141	A large flock of up to 150 birds were feeding in a stubble field at the south end of the western area during all 3 visits.
Woodpigeon	<i>Columba palumbus</i>	154	959	589	Frequently recorded in flocks of between 100-400 birds feeding in stubble fields across the site.
Barn Owl	<i>Tyto alba</i>	1	1	-	A bird [REDACTED] during visit 1, and a bird was hunting the western portion of the western area during visit 2.
Great Spotted Woodpecker	<i>Dendrocopos major</i>	1	-	1	Singles birds were at the south end of the western area during visits 1 and 3.
Green Woodpecker	<i>Picus viridis</i>	-	1	1	Singles birds were in separate woodlands in the western area during visits 2 and 3.
Kestrel	<i>Falco tinnunculus</i>	6	6	3	Frequently encountered across the site.
Merlin	<i>Falco columbarius</i>	-	-	1	A juvenile was hunting over stubble fields in the central area during visits 3.
Peregrine	<i>Falco peregrinus</i>	-	1	1	A male was hunting over stubble fields in the central area during visits 2 and 3.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Jay	<i>Garrulus glandarius</i>	2	3	2	Occasionally encountered in woodlands and lines of trees across the site.
Magpie	<i>Pica pica</i>	5	8	5	Present in small numbers across the site.
Jackdaw	<i>Corvus monedula</i>	164	107	51	Regularly encountered in small to medium sized groups across the site, usually feeding in fields with other corvids.
Rook	<i>Corvus frugilegus</i>	316	618	144	Regularly encountered in medium to large sized groups, maximum 320, across the site, usually feeding in fields with other corvids.
Carrion Crow	<i>Corvus corone</i>	132	40	42	Regularly encountered in small to medium sized groups across the site, usually feeding in fields with other corvids.
Raven	<i>Corvus corax</i>	2	-	2	A pair flew over the western and eastern areas during visits 1 and 3 respectively.
Coal Tit	<i>Periparus ater</i>	-	-	1	A single bird was in a woodland in the eastern area during visit 3.
Blue Tit	<i>Cyanistes caeruleus</i>	50	61	87	Common in hedgerows and woodlands across the site.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Great Tit	<i>Parus major</i>	22	30	23	Common in hedgerows and woodlands across the site.
Skylark	<i>Alauda arvensis</i>	170	110	256	Regularly encountered in small flocks, maximum 27, across the site, usually feeding in stubble fields.
Long-tailed Tit	<i>Aegithalos caudatus</i>	35	68	73	Common in hedgerows and woodlands across the site.
Chiffchaff	<i>Phylloscopus collybita</i>	-	3	-	Three single birds were observed in the western area during visit 2.
Goldcrest	<i>Regulus regulus</i>	3	12	3	Frequently recorded in hedgerows and woodlands across the site.
Wren	<i>Troglodytes troglodytes</i>	15	23	16	Common in hedgerows and woodlands across the site.
Treecreeper	<i>Certhia familiaris</i>	-	-	1	A single bird in a woodland in the central area during visit 3.
Starling	<i>Sturnus vulgaris</i>	495	1057	707	Regularly encountered across the site, occasionally in large flocks of up to 300 birds feeding on stubble fields.
Blackbird	<i>Turdus merula</i>	54	71	77	Common in hedgerows and woodlands across the site.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Fieldfare	<i>Turdus pilaris</i>	209	386	817	Regularly encountered in medium to large sized flocks, maximum 200, across the site, feeding in hedgerows and fields.
Redwing	<i>Turdus iliacus</i>	36	128	97	Regularly encountered in small flocks across the site, often accompanying fieldfare flocks.
Song Thrush	<i>Turdus philomelos</i>	4	34	26	Common in hedgerows and woodlands across the site.
Mistle Thrush	<i>Turdus viscivorus</i>	-	2	-	A pair were in the central area during visit 2.
Robin	<i>Erithacus rubecula</i>	16	20	44	Common in hedgerows and woodlands across the site.
Stonechat	<i>Saxicola rubicola</i>	-	5	4	Singles and pairs were in the central and western areas during visits 2 and 3.
Tree Sparrow	<i>Passer montanus</i>	-	8	9	Small flocks were present in the central and western areas during visits 2 and 3.
Dunnock	<i>Prunella modularis</i>	20	24	10	Common in hedgerows and woodlands across the site.
Pied Wagtail	<i>Motacilla alba ssp. yarrellii</i>	11	5	49	Regularly encountered singularly or in small flocks, maximum 27,

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
					across the site, feeding in flooded and stubble fields.
Meadow Pipit	<i>Anthus pratensis</i>	71	23	70	Regularly encountered in small flocks, maximum 21, across the site, feeding in flooded and stubble fields
Chaffinch	<i>Fringilla coelebs</i>	57	70	61	Regularly encountered in small to medium sized flocks, maximum 25, across the site, often mixed with other finches and buntings around cover crop fields.
Brambling	<i>Fringilla montifringilla</i>	11	10	-	Small groups were encountered in the western and eastern areas during visits 1 and 2.
Bullfinch	<i>Pyrrhula pyrrhula</i>	5	6	-	Small groups were encountered in the western and eastern areas during visits 1 and 2.
Greenfinch	<i>Chloris chloris</i>	-	1	-	A single bird was in the eastern area during visit 2.
Linnet	<i>Linaria cannabina</i>	27	72	130	Regularly encountered in small to medium sized flocks, maximum 90, across the site, often mixed with other finches and buntings around cover crop fields.

Species		Peak count			Description
Common name	Scientific name	V1	V2	V3	
Lesser Redpoll	<i>Acanthis cabaret</i>	-	-	1	A single bird was with reed buntings in the western area during visit 3.
Goldfinch	<i>Carduelis carduelis</i>	27	48	7	Regularly encountered in small to medium sized flocks, across the site.
Siskin	<i>Spinus spinus</i>	-	-	1	A single bird was in the eastern area during visit 3.
Corn Bunting	<i>Miliaria calandra</i>	8	32	3	Occasionally encountered in small to medium sized flocks, maximum 17, in the central and western areas.
Yellowhammer	<i>Emberiza citrinella</i>	25	93	81	Regularly encountered in small to medium sized flocks, maximum 30, across the site, often mixed with other finches and buntings around cover crop fields.
Reed Bunting	<i>Emberiza schoeniclus</i>	5	8	21	Occasionally encountered in small to medium sized flocks, maximum 14, across the site, often mixed with other finches and buntings around cover crop fields.

4. Evaluation

4.1. Overview

4.1.1. The assessment of the importance of the wintering bird populations recorded within the Site during the field surveys undertaken between November 2023 and January 2024 inclusive is provided below, taking into consideration:

- the conservation statuses of the species recorded (i.e. their inclusion on the legislation and guidance described in **Section 2** of this report);
- the sizes of the populations of the species recorded (i.e. species abundance);
- the overall diversity of the wintering bird assemblage (i.e. species diversity); and
- the spatial patterns of wintering bird usage of the Site, including any areas of particular importance to wintering bird populations.

4.2. Conservation status

4.2.1. 5.2.1 Of the 67 species recorded during the 2023/24 field surveys for wintering birds, 40 species are specially protected or notable, as detailed in **Table 2** below.

Table 2: Specially protected and notable species recorded during the 2023/24 surveys

Species	Conservation status category				
	Annex 1	S41	Red	Amber	SAP
Pink-footed Goose				✓	
Mallard				✓	
Grey Partridge		✓	✓		✓
Sparrowhawk				✓	
Marsh Harrier	✓			✓	
Hen Harrier	✓	✓	✓		
Red Kite	✓				
Moorhen				✓	
Lapwing		✓	✓		✓

Species	Conservation status category				
	Annex 1	S41	Red	Amber	SAP
Woodcock			✓		
Snipe				✓	✓
Black-headed Gull				✓	
Common Gull				✓	
Great Black-backed Gull				✓	
Herring Gull		✓	✓		
Lesser Black-backed Gull				✓	
Stock Dove				✓	
Woodpigeon				✓	
Barn Owl					✓
Kestrel				✓	
Merlin	✓		✓		
Peregrine	✓				
Rook				✓	
Skylark		✓	✓		✓
Wren				✓	
Starling		✓	✓		✓
Fieldfare			✓		
Redwing				✓	
Song Thrush		✓		✓	
Mistle Thrush			✓		
Tree Sparrow		✓	✓		✓

Species	Conservation status category				
	Annex 1	S41	Red	Amber	SAP
Dunnock		✓		✓	
Meadow Pipit				✓	
Bullfinch		✓		✓	✓
Greenfinch			✓		
Linnet		✓	✓		✓
Lesser Redpoll		✓	✓		
Corn Bunting		✓	✓		✓
Yellowhammer		✓	✓		✓
Reed Bunting		✓		✓	✓

4.2.2. In summary, the 67 species recorded during the wintering bird surveys of the site in 2023/24 included the following:

- 5 EC Birds Directive Annex 1 species;
- 15 NERC S41 Species of Principal Importance;
- 16 Birds of Conservation Concern Red list species;
- 21 Birds of Conservation Concern Amber list species; and
- 12 Species Action Plan bird species for Lincolnshire.

4.3. Species abundance

4.3.1. Peak counts for species recorded in numbers that were potentially of international or national importance were compared with relevant population estimates as described in **Section 3.3.3** of this report.

4.3.2. Populations were assessed as being important at an international or national level if they exceeded 1% of the relevant population estimate. This evaluation is presented in **Table 3** below. Species omitted from **Table 3** were recorded in numbers that were far below international and national importance thresholds and therefore did not require further evaluation.

4.3.3. The peak count recorded for a species during a single visit has been used.

- 4.3.4. Based on the peak counts for the species encountered during the 2023/24 field survey, no species are assessed as being present in numbers of international or national importance within the Order Limits.
- 4.3.5. Considering the analysis undertaken above, and in reference to *Lincolnshire Bird Report 2021 [Ref-14]* and professional judgement, the following species are assessed as having been present in numbers of potential county and district level importance, as detailed below:

Table 3: Evaluation of wintering bird population importance at a county and district level

Species	Peak Count	Importance Level	Justification
Grey Partridge	63 (January)	County	Common but declining resident in Lincolnshire. The total max count for the county in January 2021 was 257 (from 34 sites).
Hen Harrier	1	District	Scarce passage migrant and winter visitor in Lincolnshire. The majority of wintering birds are present on the coast, with fewer recorded inland.
Stock Dove	208 (December, maximum flock 150)	County	Common and increasing resident and winter visitor in Lincolnshire. Only two sites in the county reported flocks of over 100 birds in 2021.
Corn Bunting	32 (December, maximum flock 17)	District	Fairly common but somewhat localised and declining resident in Lincolnshire. Around ten sites in the county reported flocks of over 15 birds in 2021.

- 4.3.6. The remaining species are assessed as having been present in numbers of no more than local importance.

4.4. Species diversity

- 4.4.1. In view of the assemblage of 67 species recorded within and adjacent to the site during the field surveys, with reference to the importance levels assessed in **Table 3**, the wintering bird assemblage recorded is assessed as being of district level importance.
- 4.4.2. Site usage by wintering birds
- 4.4.3. The survey area is shown in **Figure 1** from this report. The distributions of wintering bird populations of county and district significance recorded within this area are indicated in **Figure 2** from this report.
- 4.4.4. Dividing the survey area into roughly three areas (Springwell East, Springwell Central and Springwell West) - these three areas were broadly similar in the species they supported in winter 2023/24, with the species recorded generally comprising typical species of farmland habitat and associated hedgerows and woodlands. The diversity of notable bird species was generally higher in the central and western areas.
- 4.4.5. Regarding species recorded in numbers of county significance, grey partridge activity was recorded throughout the site, particularly around large stubble fields in the central and western areas. The peak count of 62 grey partridge corresponds well with the breeding bird survey carried out in 2023 which estimated 14 possible territories across the site. On the other hand, there were 23 possible stock dove territories identified across the site during the breeding bird survey, which suggests that birds from outside of the site are utilising the area during the winter, supporting the assessment of county level importance for this species. The majority of stock doves were observed in a single large flock of up to 150 birds in stubble fields in the far south-west corner of the site, with smaller flocks of between 5-39 birds sighted in other areas of the site.
- 4.4.6. Regarding other wintering bird populations recorded during the field surveys, pasture and arable fields (e.g. winter wheat and winter stubble) provided a range of foraging opportunities, which was reflected in the diversity of bird species recorded. Whilst hedgerows separating fields were not of significant value to populations of county importance (with the possible exception of grey partridge), they were used by low numbers of a diverse range of species, including various species that have undergone significant national decline such as tree sparrow and yellowhammer. There was no standing water on site except for the flooded quarry adjacent to RAF Digby, as such wetland species did not feature heavily during the survey.
- 4.4.7. Records of lapwing and golden plover were limited to three large ploughed fields in the central area, with peak counts of 52 (excluding flyovers) and 109 respectively.

5. Conclusion

- 5.1.1. The field surveys undertaken between November 2023 and January 2024 inclusive; to inform the proposed development for Springwell Solar Farm; recorded a total of 67 bird species wintering on the site, of which 40 species are specially protected or notable in reference to the legislation and conservation status criteria described in **Section 2** of this report. Based on the species recorded, the wintering bird assemblage is assessed as being of District importance. Populations of individual species, grey partridge and stock dove, were recorded in numbers assessed as being of potential County importance, with corn bunting being assessed as being of District importance. No species were present in numbers of International or National importance.
- 5.1.2. The Site contains some habitats of value to the wintering bird populations described; notably fields of mixed usage including pasture, winter wheat and winter stubble and oilseed rape, though lacks wetland or standing water, which would be important for wader and wildfowl species.
- 5.1.3. No qualifying species of the Wash Special Protected Area (SPA) were recorded using the Site during the survey, with a single flyover Pink-footed goose (*Anser brachyrhynchus*) flock being the only qualifying species observed. As a result, in conjunction with the large distance of c.35km between the site and the SPA, it is considered highly unlikely that the site is functionally linked land to the Wash SPA. It was therefore considered unnecessary to continue with further survey visits in February to inform the impacts of the scheme on this designated site.
- 5.1.4. The surveys have identified that the site supports important populations of farmland wintering birds, considered as a whole of District importance; impacts should therefore be taken into account in the final design of the Proposed Development. Mitigation proposals, including retention of arable fields in a sympathetic cropping rotation for lapwing and golden plover, as well as areas of habitat creation and enhancement, would be suitable in terms of mitigating potential adverse effects on these wintering bird populations.

6. References

- **Ref-1:** Council of the European Communities. (2009) Directive 2009/147/EC of the European Parliament and of the Council of 20 November 2009 on the conservation of wild birds (codified version). Official Journal of the European Communities, 20 (2009), 7-25.
- **Ref-2:** The Conservation of Habitats and Species Regulations 2017 (as amended). London: HMSO.
- **Ref-3:** Wildlife and Countryside Act 1981 (as amended). London: HMSO.
- **Ref-4:** Natural Environment and Rural Communities Act (2006). Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> - accessed 01/08/2023.
- **Ref-5:** Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available at: [REDACTED] - accessed 01/08/2023.
- **Ref-6:** Lincolnshire Biodiversity Action Plan 2011-2020 (3rd edition). Lincolnshire Biodiversity Partnership. Available at: <http://www.southkesteven.gov.uk/CHttpHandler.ashx?id=7371&p=0> - accessed 01/08/2023.
- **Ref-7:** BTO. (2022) BTO Data Report, Springwell. Compiled on 8 March 2023. British Trust for Ornithology, Thetford.
- **Ref-8:** MAGIC Interactive Map. DEFRA.
- **Ref-9:** GLNP. (2013) Local Wildlife Site Guidelines for Greater Lincolnshire. 3rd Edition. April 2013. Greater Lincolnshire Nature Partnership. Available at: [REDACTED] - accessed 01/08/2023.
- **Ref-10:** Bird Survey and Assessment Steering Group. (2022) Bird Survey Guidelines for assessing ecological impacts, v.0.1.6. Available at: [REDACTED] - accessed 01/08/2023.
- **Ref-11:** Marchant, J.H. (1983) BTO Common Birds Census instructions. BTO, Tring.
- **Ref-12:** Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, S. & Noble, D. (2020) APEP 4 Population estimates of birds in Great Britain and the United Kingdom. British Birds: 113, BTO. Available at: [REDACTED]

_____ –
accessed 01/08/2023.

- **Ref-13:** CIEEM. (2019) Advice Note on the lifespan of ecological surveys and reports. Available at: _____ – accessed 01/08/2023.
- **Ref-14:** Casey, C., Clarkson, J.R., Epsin, P., & Hyde, P.A. The Birds of Lincolnshire. Lincolnshire Bird Club. 2021.

Appendix 1 - Field Survey Weather Conditions




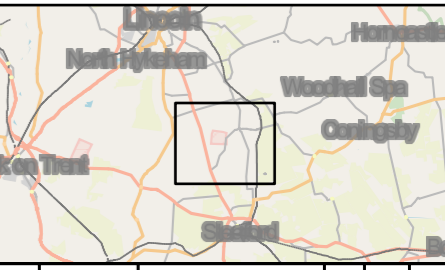
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1	14/11/2023	Start: 9°C, cloud 2/8, wind BF2, dry End: 10°C, cloud 8/8, wind BF2, drizzle
	15/11/2023	Start: 6°C, cloud 0/8, wind BF3, dry End: 8°C, cloud 0/8, wind BF4, dry
	16/11/2023	Start: 6°C, cloud 8/8, wind BF2, dry End: 7°C, cloud 8/8, wind BF2, dry
2	19/12/2023	Start: 11°C, cloud 8/8, wind BF3, dry End: 13° C, cloud 8/8, wind BF3, dry
	20/12/2023	Start: 9°C, cloud 6/8, wind BF4, dry End: 13° C, cloud 8/8, wind BF5, dry
	22/12/2023	Start: 11°C, cloud 8/8, wind BF4, dry End: 13° C, cloud 8/8, wind BF5, dry
3	24/01/2024	Start: 11°C, cloud 4/8, wind BF5, dry End: 13° C, cloud 6/8, wind BF6, dry
	25/01/2024	Start: 8°C, cloud 8/8, wind BF3, dry End: 9° C, cloud 8/8, wind BF2, dry
	26/01/2024	Start: 8°C, cloud 0/8, wind BF4, dry End: 9° C, cloud 2/8, wind BF4, dry
	01/02/2024	Start: 4°C, cloud 4/8, wind BF3, dry End: 6° C, cloud 4/8, wind BF3, dry

Figure 1 - Site Location Plan





LEGEND:
 Survey Area



Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

Springwell Solar Farm



DOCUMENT:
 ENVIRONMENTAL STATEMENT
 VOLUME 3, APPENDIX 7.3: WINTERING
 BIRD SURVEY
 REGULATION 5(2)(a)

TITLE:
 FIGURE 1 SITE LOCATION PLAN

PINS REFERENCE NUMBER:
 EN010149/APP/6.3

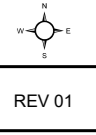
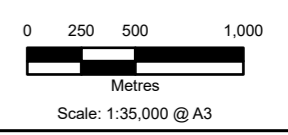


Figure 2 - County & District Important Species





LEGEND:

- Survey Area
- Flight Stage
 - ✂ Circling / Flying Over
 - ✂ Landing
 - ✂ Taking Off
- Visit
 - Visit 1
 - Visit 2
 - Visit 3

Code	Scientific name	Common name
CB	<i>Emberiza calandra</i>	Corn Bunting
HH	<i>Circus cyaneus</i>	Hen Harrier
P.	<i>Perdix perdix</i>	Grey Partridge
SD	<i>Columba oenas</i>	Stock Dove



01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF
Rev	Date	Description	Drn	Chk	App

Springwell Solar Farm

DOCUMENT:
ENVIRONMENTAL STATEMENT
VOLUME 3, APPENDIX 7.3: WINTERING
BIRD SURVEY
REGULATION 5(2)(a)

TITLE:
FIGURE 2 COUNTY & DISTRICT
IMPORTANT SPECIES, PAGE 1 OF 3

PINS REFERENCE NUMBER:
EN010149/APP/6.3

Scale: 1:15,000 @ A3

REV 01

500500 501000 501500 502000 502500 503000 503500 504000 504500 505000



LEGEND:

- Survey Area
- Flight Stage
 - Circling / Flying Over
 - Landing
 - Taking Off
- Visit
 - Visit 1
 - Visit 2
 - Visit 3

Code	Scientific name	Common name
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Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

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REGULATION 5(2)(a)

TITLE:
FIGURE 2 COUNTY & DISTRICT
IMPORTANT SPECIES, PAGE 2 OF 3

PINS REFERENCE NUMBER:
EN010149/APP/6.3

0 150 300 600
Metres
Scale: 1:15,000 @ A3

REV 01



LEGEND:

- Survey Area
- Flight Stage
 - Circling / Flying Over
 - Landing
 - Taking Off
- Visit
 - Visit 1
 - Visit 2
 - Visit 3

Code	Scientific name	Common name
CB	<i>Emberiza calandra</i>	Corn Bunting
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Rev	Date	Description	Drn	Chk	App
01	NOV 2024	DCO SUBMISSION	RSK	RSK	EDF

Springwell Solar Farm

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TITLE:
FIGURE 2 COUNTY & DISTRICT
IMPORTANT SPECIES, PAGE 3 OF 3

PINS REFERENCE NUMBER:
EN010149/APP/6.3

Scale: 1:15,000 @ A3

REV 01



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