

Appendix H – Breeding Bird Survey



Sperberry Hill Solar and BESS Project, Resubmission
on behalf of Axis PED
Breeding Bird Survey Report



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1 INTRODUCTION

1.1 Project Background

- 1.1.1 1.1.1 Avian Ecology Ltd. (AEL) was commissioned by Axis on behalf of Brockwell Storage and Solar Limited to undertake an Ecological Assessment in relation to a proposed solar development (the 'Proposed Development') on land off Sperberry Hill, near St Ippolyts, Hertfordshire. The Proposed Development is a resubmission (hereafter the 'Resubmission Scheme') of a previously refused solar development (planning ref: 22/00709/FP, hereafter the '2023 Scheme'). The study area comprised the planning application site boundary ('the Site')
- 1.1.2 The objectives of this report are:
- Provide baseline information on the current breeding ornithological features within the Site;
 - Identify the presence of notable breeding bird species within the Site;
 - Assess the importance of the breeding bird assemblage which the Site supports; and,
 - Provide recommendations for further pre-construction checks and / or mitigation measures related to breeding birds, if required.
- 1.1.3 Only common bird species names are referred to within the main text of this Appendix. **Annex 1** provides a summary of all bird species recorded during the surveys. Both common and species names together with a summary of their conservation status as relevant is provided.

1.2 Site Overview

- 1.2.1 The Site, as shown on **Figure 1**, comprises two discrete areas separated by Little Almshoe Lane and totals approximately 35 ha. The Site is located south east of the village of St Ippolyts, Hitchin, Hertfordshire and west of Stevenage. The Site is located at the approximate Site central grid reference TL2059 2645.
- 1.2.2 Both areas are predominantly arable land, being used for a wheat crop at the time of baseline survey and bounded by hedgerows.
- 1.2.3 The surrounding land use is predominantly agricultural, including pasture and arable fields with a number of small villages, including St Ippolyts and Titmore Green, also present. Wymondley Transformer Station is located north of the Site with St Ibbs Park area of parkland to the northwest.

2 METHODOLOGY

2.1 Breeding Bird Survey

- 2.1.1 Breeding bird surveys were undertaken monthly between May and June 2022 (total of three surveys). All three surveys were undertaken between approximately 07.30hrs and completed by 09.30hrs. All three surveys were carried out in conditions suitable for breeding bird surveys (avoiding heavy rain and strong winds). The Survey Area for the breeding bird survey was defined as the Site, including adjoining habitats to the Site (for example hedgerows and tree-lines along Site boundaries).
- 2.1.2 Breeding bird surveys were undertaken by J. Hanlon who is an experienced ornithologist.

- 2.1.3 The methodology employed was based upon a scaled-down version of the British Trust for Ornithology (BTO) Common Bird Census (CBC) technique, as detailed in Gilbert *et al.* (1998¹). All bird registrations were recorded on suitably scaled field maps using standard BTO species codes and behaviour notations (such as singing, carrying food, active nest). The approximate locations of bird territories within the Site were determined using standard territory mapping techniques to identify and isolate areas within which birds consistently displayed breeding behaviours (following Gilbert *et al.* 1998¹). The territory mapping method is based on the observation that many species during the breeding season are territorial. This is most marked in passerines where territories are often determined by conspicuous song, display and territorial disputes with neighbouring conspecifics. The expected outcome of this technique is that mapped registrations fall into clusters, approximately coinciding with territories. Records of birds only visiting the Site (e.g., gulls feeding in fields) and birds flying over the Site were also made and the records of these summarised, however these have been discounted from further analysis, given they are not breeding within the Site and are therefore not considered relevant to the assessment.
- 2.1.4 For the purposes of the assessment, although the estimated number of breeding territories for all species is provided, only the breeding territories of Notable Species are mapped, given these are the most relevant species to the assessment. Notable Species consist of Birds of Conservation Concern (BoCC Amber and Red List Species, Stanbury *et al.* 2021²) and Annex 1/Schedule 1 raptors and owls.
- 2.1.5 Details of the surveys are presented in **Table 2.1**.

Table 2.1: Breeding bird survey effort.

Date	Start time (24hrs)	End time (24hrs)	Sunrise times (24hrs)	Survey conditions
24/04/2022	07:30	09:00	05:45	Overcast changing to clear with a north easterly breeze and good visibility
16/05/2022	07:55	09:35	05:06	Overcast with light south westerly winds and average visibility.
02/06/2022	07:55	09:30	04:46	Light cloud with a light south easterly and good visibility

Limitations

- 2.1.6 The results of the surveys are only a snap-shot of the habitat use and activity of the bird assemblage within the Site. However, the surveys have provided indicative evidence of the breeding bird assemblage within the Site.
- 2.1.7 It is appreciated that factors, including the cropping regime will influence habitat use within the Site by birds. It is an assumption that the cropping regime during the survey period is typical.
- 2.1.8 Access was permitted to all parts of the Site during all surveys.

¹ Gilbert, G., Gibbons, D.W & Evans, J. (1998) *Bird monitoring methods*. A manual of techniques for key UK species. RSPB.

² Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and 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 online at <https://britishbirds.co.uk/content/status-our-bird-populations>.

3 RESULTS

3.1 Breeding Bird Surveys

- 3.1.1 The breeding bird assemblage recorded within the Site is typical of lowland farmland habitats. Seven breeding Notable Species were recorded breeding within the Site, consisting of four Amber List species (wood pigeon, whitethroat, wren and dunnock), and three Red List species (skylark, corn bunting and yellowhammer). Of these, four are also species listed as rare and most threatened species under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) (skylark, dunnock, corn bunting and yellowhammer). The number of breeding territories of these species were typically low (≤ 4 territories), with the exception of skylark (up to nine territories).
- 3.1.2 No Schedule 1 species were recorded breeding within the Site or wider survey area during the surveys. However it should be noted that a peregrine was noted during the extended Phase 1 habitat surveys undertaken in August 2021 nesting on a pylon within the Wymondley Transforming Station, approximately 100m north of the Site. No species recorded during the surveys have specific action plans within the Hertfordshire Biodiversity Action Plan (LBAP)³.
- 3.1.3 The Notable Species breeding assemblage was typically associated with field boundary vegetation on Site.
- 3.1.4 Two ground nesting Notable Species, skylark and con bunting were recorded within the Site. Skylark were recorded in moderate breeding numbers, with nine territories. Skylark were typically associated with arable crop and open fields. Corn bunting were recorded singing within field boundary vegetation at two separate locations, both in the south of the Site.
- 3.1.5 All breeding species recorded along with an estimated number of territories are detailed within **Table 3.1**. Those species in **bold** are considered Notable Species. The indicative locations of the territories of Notable Species are provided in **Figure 1**.

Table 3.1: Breeding bird survey results.

Common name	Estimated number of territories	Comments
Red-legged Partridge	1	N/A
Wood Pigeon	1	Associated with trees along the eastern Site boundary
Blue Tit	2	Associated with boundary vegetation along eastern Site boundary and the lane separating the two parcels. Family group seen.
Great Tit	1	Associated with field boundary
Skylark	9	Ground nesting
Lesser Whitethroat	1	Associated with field boundary vegetation
Whitethroat	2	Associated with field boundary along the northern Site boundary

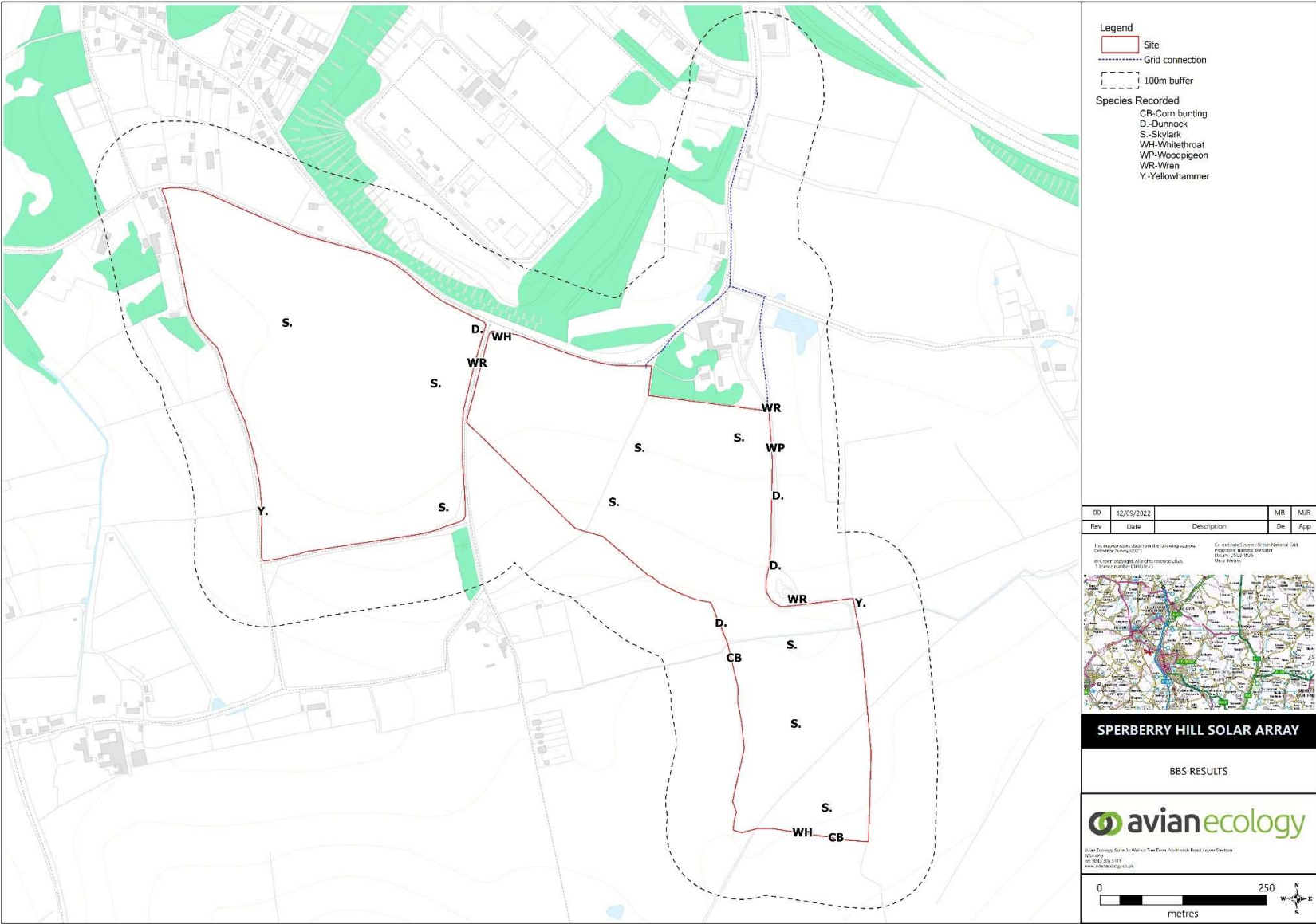
³ <https://www.hertfordshire.gov.uk/microsites/building-futures/a-sustainable-design-toolkit/technical-modules/landscape-and-biodiversity/basic-principles.aspx>
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Goldcrest	1	N/A
Wren	3	Associated with field boundary vegetation
Robin	1	Pair seen along northern boundary of the Site
Dunnock	4	Associated with field boundary vegetation
Chaffinch	1	Associated with field boundary vegetation
Goldfinch	2	N/A
Corn Bunting	2	Heard singing in field boundary vegetation in south of the Site
Yellowhammer	2	Associated with field boundary vegetation

- 3.1.6 During the surveys a small number of species were recorded which were not considered as breeding within the Site. These consisted of species flying over the Site only (rook, raven, yellow wagtail, red kite, buzzard, kestrel and peregrine), and those considered only v
- 3.1.7 isiting the Site to feed (swallow, blackbird, carrion crow, jackdaw, magpie, swift, raven, rook, long-tailed tit, stock dove, blackcap and mistle thrush)⁴.

⁴ This was based on a number of factors including the number and gender of birds recorded (e.g., only one record of one female during the survey period), unsuitability of habitats onsite for breeding of some species, and movement of birds from Site to a suspected nest site offsite.

Figure 1: Breeding Bird Survey Results



ANNEX 1. BIRD SPECIES SUMMARY

Table A1-1 provides a list of bird species recorded during the breeding bird surveys. Both common and species names are presented along with a summary of each species conservation status using the following abbreviations:

- Annex 1 – species listed on Annex 1 of the EU Birds Directive as threatened;
- S1 – species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended – species listed on this Schedule, but are provided more protection from harassment;
- Red/ Amber/ Green – Birds of Conservation Concern (BoCCs) as listed by leading bird conservation organisations in the UK, including the RSPB and BTO (Stanbury *et al.*, 2021²);
- Sec41 – species listed as rare and most threatened on the NERC Act (2006); and,
- LBAP – species on the Hertfordshire Local Biodiversity Action Plan.

Table A1-1: Summary of bird species.

Common name	Species name	Conservation status
Red-legged Partridge	<i>Alectoris rufa</i>	Non-native
Swift	<i>Apus apus</i>	Red
Stock Dove	<i>Columba oenas</i>	Amber
Woodpigeon	<i>Columba palumbus</i>	Amber
Cormorant	<i>Phalacrocorax carbo</i>	Green
Sparrowhawk	<i>Accipiter nisus</i>	Amber
Buzzard	<i>Buteo buteo</i>	Green
Kestrel	<i>Falco tinnunculus</i>	Amber
Magpie	<i>Pica pica</i>	Green
Jackdaw	<i>Coloeus monedula</i>	Green
Rook	<i>Corvus frugilegus</i>	Amber
Carrion Crow	<i>Corvus corone</i>	Green
Raven	<i>Corvus corax</i>	Green
Blue Tit	<i>Cyanistes caeruleus</i>	Green
Great Tit	<i>Parus major</i>	Green
Skylark	<i>Alauda arvensis</i>	Red; Sec41
Swallow	<i>Hirundo rustica</i>	Green
Long-tailed Tit	<i>Aegithalos caudatus</i>	Green
Blackcap	<i>Sylvia atricapilla</i>	Green
Lesser Whitethroat	<i>Curruca curruca</i>	Green
Whitethroat	<i>Curruca communis</i>	Amber
Goldcrest	<i>Regulus regulus</i>	Green
Wren	<i>Troglodytes troglodytes</i>	Amber
Mistle Thrush	<i>Turdus viscivorus</i>	Red
Blackbird	<i>Turdus merula</i>	Green
Robin	<i>Erithacus rubecula</i>	Green
Dunnock	<i>Prunella modularis</i>	Amber; Sec41
Yellow Wagtail	<i>Motacilla flava</i>	Red; Sec41
Chaffinch	<i>Fringilla coelebs</i>	Green
Goldfinch	<i>Carduelis carduelis</i>	Green

Common name	Species name	Conservation status
Corn Bunting	<i>Emberiza calandra</i>	Red; Sec41
Yellowhammer	<i>Emberiza citrinella</i>	Red; Sec41

ANNEX 2: BREEDING BIRD SURVEY EFFORT

Date	Surveyor	Start Time (24 hrs)	End time (24 hrs)	Wind Speed	Wind Direction	Rain	Cloud Height	Cloud Cover	Visibility	Frost	Snow	Temperature (°C)
24/04/2022	JH	07:30	09:00	2	NE	0	1	8	2	0	0	8
16/05/2022	JH	07:55	09:35	2	SW	0	2	8	2	0	0	13
02/06/2022	JH	07:55	09:30	4	SSE	0	2	2	2	0	0	12

Wind Speed		W-Direction	Rain		Cloud Cover		Cloud Height	
Calm	0	Use 16 point Compass	None	0	In eighths e.g.	3/8	<150m	0
Light air	1		Drizzle/Mist	1			150-500m	1
Light breeze	2	N	Light showers	2			>500m	2
Mod. breeze	4	NNE	Heavy rain	4				
Fresh breeze	5	NE						
Strong breeze	6	ENE						
Mod. gale	7	E	Visibility		Snow		Frost	
Fresh gale	8	Etc	Poor	0	None	0	None	0
Strong gale	9		< 1km	1	On Site	1	Ground	1
Whole gale	10		>1km	2	High ground	2	All day	3
Storm	11							