
Berrington Solar Farm
on behalf of Econergy Ltd.
Breeding Bird Survey Report: 2024



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1 INTRODUCTION

1.1 Project Background

1.1.1 Avian Ecology Ltd. (AEL) was commissioned by Eenergy Ltd. to undertake breeding bird surveys, in relation to the proposed installation of a Solar PV Park development and associated infrastructure ('the Proposed Development') on land to the southwest of Berrington, Shropshire ('the Site').

1.1.2 The objectives of this report are to:

- Provide baseline information on breeding ornithological features within the surveyed area; and,
- Identify the presence of notable breeding bird species within the surveyed area.

1.1.3 Only common bird species names are referred to within the main text of this report. **Annex 1** provides a summary of all bird species recorded during survey, including both common and species names together with a summary of their conservation status as relevant.

1.2 Site Overview

1.2.1 Two land parcels were surveyed:

- The Site, which comprises the red-line boundary of the Proposed Development; and,
- The Compensation Area, which comprises land to the north of the Site which is proposed for use as Skylark mitigation.

1.2.2 Collectively the two land parcels are referred to as 'the Survey Area'.

1.2.3 The Site, as shown by the red-line boundary on **Figure 1**, is located on land to the southwest of Berrington, Shrewsbury, SY5 6HQ (Central Grid Reference: SJ 52312 06495) and is approximately 42.8 ha. The Site consists of large arable and grassland fields, within one of the fields a large lagoon is present. A gravel road runs along the western, eastern and northern perimeters of the Site. Small areas of established habitats include areas of neutral grassland, scrub, trees, hedgerow, tall herb and ponds.

1.2.4 The Compensation Area, as shown by the blue-line boundary on **Figure 1**, comprises large arable fields, small pockets of woodland and ponds, with fields bounded separated by hedgerows, and is approximately 28.25 ha.

1.2.5 In the wider context, the Survey Area is surrounded by extensive areas of arable and pastoral farmland with small residential areas to the north-east, west and south. To the immediate northeast of the Survey Area is Berrington Pool Site of Special Scientific Interest (SSSI) / Midland Meres and Mosses Phase 1 Ramsar site, which spatially overlap. Neither of the two designated sites are notable for breeding birds.

1.2.6 The Site does not form part of any statutory or non-statutory designated site with breeding ornithological interests.

2 METHODOLOGY

- 2.1.1 A breeding bird survey was undertaken within the Survey Area between April and July 2024, following guidance from the Bird Survey & Assessment Steering Group (2025)¹ that comprised a series of six staggered survey visits undertaken at least seven days apart.
- 2.1.2 Five of the six visits were carried out from dawn and finished by 12:00hrs, whilst one visit was conducted at dusk (i.e. during the last few hours of the day and extended beyond sunset for at least one hour). A dusk survey was conducted in order to pick up species not readily recorded by conventional surveys early in the morning, as species are known to vary in their detectability throughout the day.
- 2.1.3 The Survey Area comprised the Site and Compensation Areas, plus up to a 100m buffer of the these ('Wider Survey Area'), observed from the Survey Area boundary to record the presence of species listed under Schedule 1 of the Wildlife & Countryside Act 1981² (as amended).
- 2.1.4 All breeding bird survey visits were undertaken by suitably competent and experienced ornithologists, with all surveys conducted in suitable conditions (avoiding heavy rain and strong winds).
- 2.1.5 During survey all bird registrations were recorded on scaled field maps using standard British Trust for Ornithology ('BTO') species codes and behaviour notations (such as singing, carrying food, active nest). The approximate locations of bird territories within the Survey Area was determined using standard territory mapping techniques to identify and isolate areas within which birds consistently displayed breeding behaviours (following Gilbert *et al.* 1998)³.
- 2.1.6 'Notable Species' relevant to the Proposed Development were defined as those listed on Birds of Conservation Concern ('BoCC') 'Amber List' and 'Red List' species (Stanbury *et al.*, 2021⁴ and Stanbury *et al.*, 2024⁵), Annex 1⁶ listed species, Schedule 1 listed species, birds listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006)⁷ and Shropshire Biodiversity Action Plan (LBAP) species⁸.
- 2.1.7 For the purposes of this report, although the estimated number of breeding territories for all species is provided (**Table 3.1**) only the breeding territories of Notable Species are mapped and presented on **Figures 2** (Site) and **3** (Compensation Area), given these are the most relevant species to the design and assessment of development proposals. Observations of non-breeding birds just visiting the Site (e.g., gulls feeding in fields) and birds flying over the Site were also recorded.

¹ Bird Survey & Assessment Steering Group. (2025). Bird Survey Guidelines for assessing ecological impacts, <https://birdsurveyguidelines.org> (Accessed: 14th January 2025).

² Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). Available online at: <https://www.legislation.gov.uk/ukpga/1981/69/schedule/1> (Accessed: 14th January 2025).

³ Gilbert, G., Gibbons, D.W & Eans, J. (1998) *Bird monitoring methods*. A manual of techniques for key UK species. RSPB.

⁴ 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**, pp. 723-747. Available online at: <https://www.bto.org/our-science/publications/birds-conservation-concern/status-our-bird-populations-fifth-birds> (Accessed: 14th January 2025).

⁵ Stanbury, A.J., Burns, F., Aebischer, N.J., Baker, H., Balmer, D.E., Brown, A., Dunn, T., Lindley, P., Murphy, M., Noble, D.G. and Owens, R. (2024). The status of the UK's breeding seabirds: an addendum to 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*, 117: 471-487. Available at: <https://britishbirds.co.uk/seabird-bocc5a> (Accessed: 14th January 2025).

⁶ Annex 1 – species listed on Annex 1 of the EC Directive 2009/147/EC of the European Parliament on the conservation of wild birds. https://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index_en.htm (Accessed: 14th January 2025).

⁷ Natural Environment and Rural Communities (NERC) Act (2006) Available online at: <https://www.legislation.gov.uk/ukpga/2006/16/contents> (Accessed: 14th January 2025).

⁸ Shropshire Biodiversity Action Plan <https://next.shropshire.gov.uk/environment/ecology-and-biodiversity/biodiversity-action-plan-and-marches-nature-partnership/> (Accessed: 14th January 2025).

2.1.8 A summary of survey effort is presented in **Table 2.1** and detailed survey conditions are presented in **Annex 2**.

Table 2.1: Breeding bird survey effort.

Survey Visit	Date	Start time (24hrs)	End time (24hrs)	Sunrise / Sunset (24hrs)
1	25/04/2024	05:45	11:00	05:50 / 20:10
2	09/05/2024	05:00	12:00	05:23 / 20:29
3	21/05/2024	04:55	10:35	05:02 / 20:55
4	06/06/2024	17:28	22:36	04:49 / 21:31
5	18/06/2024	04:28	09:50	04:43 / 21:58
6	11/07/2024	04:48	09:56	04:59 / 21:45

Limitations

2.1.9 Cows were present in fields within the Compensation Area on some visits, limiting access; however as singing and displaying birds could be recorded from outside the fields, this is not considered to represent a substantial data limitation.

3 RESULTS

3.1.1 Results are presented separately for the Site and the Compensation Area.

3.2 Site

3.2.1 The breeding bird assemblage recorded within the Site is considered representative of the locale and habitats present. A total of 19 species were recorded breeding within the Site, with eight being Notable Species. Of these, two included ground-nesting Notable Species (skylark and yellow wagtail).

3.2.2 On-Site breeding territories of Notable Species comprised:

- Four BoCC 'Amber List' species: whitethroat, wren, song thrush and dunnock;
- Four BoCC 'Red List' species: skylark yellow wagtail, linnet and yellowhammer;
- Six species listed under S41 of the NERC Act (2006): skylark, song thrush, dunnock, yellow wagtail, linnet and yellowhammer; and,
- Four LBAP species: skylark, song thrush, linnet and yellowhammer .

3.2.3 No species recorded breeding in the Site are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) or on Annex 1 of the Directive 2009/147/EC (Birds Directive).

3.2.4 The number of breeding territories of on-Site Notable Species was typically five or less, although skylark (6 territories), whitethroat (7 territories) and wren (16 territories) were the exception.

3.2.5 Ground-nesting Notable Species recorded within the Site was also typically low and comprised only of skylark (six territories) and yellow wagtail (two territories).

3.2.6 The number of skylark territories were calculated on the basis of singing males recorded during the survey. A territory was confirmed if a singing male was recorded at least twice in the same

approximate location over the six visits following BTO CBC techniques, in accordance with Gilbert *et al.* (1998). Skylark territories were evenly distributed within grassland and arable habitats within the Site.

- 3.2.7 With the exception of ground-nesting species, on-Site breeding territories of Notable Species were typically associated with vegetation along field boundaries which principally included hedgerows, scrub, tree-lines and woodland habitats.
- 3.2.8 All breeding species (or potential breeding species) recorded along with an estimated number of the breeding territories within the Site and Wider Survey Area are detailed within **Table 3.1**. Those species in **bold** are Notable Species. The indicative locations of the territories of on-Site Notable Species are provided in **Figure 2**.

3.3 Compensation Area

- 3.3.1 The breeding assemblage recorded within the Compensation Area is considered representative of the habitats present. A total of 21 breeding species were recorded, 11 being Notable Species. Of these, only one comprises a ground-nesting Notable Species (skylark).
- 3.3.2 Notable Species recorded within the Compensation Area comprised:
- Seven BoCC 'Amber Listed' species: woodpigeon, sedge warbler, whitethroat, wren, song thrush, dunnock and reed bunting;
 - Four BoCC 'Red Listed' species: skylark, greenfinch, linnet and yellowhammer;
 - Six listed under S41 of the NERC Act (2006): skylark, song thrush, dunnock, linnet, yellowhammer and reed bunting; and,
 - Five LBAP species: skylark, song thrush, linnet, yellowhammer and reed bunting.
- 3.3.3 The number of breeding territories of these Notable Species was less than five territories, although wren (9 territories) was the exception.
- 3.3.4 Skylark was the only ground-nesting Notable Species recorded within the Compensation Area and included four territories.
- 3.3.5 With the exception of ground-nesting species, breeding territories of Notable Species were typically associated with vegetation along field boundaries which principally included hedgerows, scrub, tree-lines and woodland habitats.
- 3.3.6 All breeding species (or potential breeding species) recorded along with an estimated number of the breeding territories within the Compensation Area and Wider Survey Area are detailed within **Table 3.1**. Those species in **bold** are considered Notable Species. The indicative locations of the territories of Notable Species within the Compensation Area are provided in **Figure 3**.

Table 3.1: Breeding bird territories recorded within the Site, Compensation Area and Wider Survey Area.

Common name	Estimated number of Site territories	Estimated number of Mitigation Area territories	Estimated number of Wider Survey Area territories	Comments
Woodpigeon	0	1	0	Associated with hedgerows and scrub.
Blue tit	1	2	1	Field margins and woodland
Great tit	1	1	0	Field margins and woodland
Skylark	6	4	0	Open agricultural fields.
Chiffchaff	7	12	1	Hedgerows and scrub.
Sedge Warbler	0	1	0	Scrub and field margins
Blackcap	5	4	1	Hedgerows and scrub.
Garden warbler	1	1	0	Hedgerows and scrub.
Lesser whitethroat	1	3	0	Hedgerows and scrub.
Whitethroat	7	3	1	Singing males recorded in in hedgerows and scrub.
Wren	16	9	3	Observed in trees and hedgerows.
Song Thrush	4	4	1	Hedgerows and woodland.
Blackbird	4	5	0	Identified within trees and hedgerows.
Robin	6	6	0	Identified within trees and hedgerows.
Stonechat	1	0	0	Recorded along a hedgerow.
Dunnock	4	2	0	Singing and calling throughout tree, hedgerow and scrub habitats.
Yellow Wagtail	2	0	0	Identified in open arable fields.
Chaffinch	8	5	0	Observed throughout trees and hedgerows.
Greenfinch	0	1	0	Located in woodland.
Linnet	3	1	0	Recorded in trees.
Goldfinch	2	1	0	Identified within trees and hedgerows.
Yellowhammer	5	1	1	Singing in hedgerows and trees.
Reed Bunting	0	1	0	Identified adjacent to standing water.

3.3.7 During the surveys, several species were recorded in the Survey Area which were not considered as breeding. The following species were recorded as either only flying over or feeding within the Survey Area:

- Canada goose;
- Greylag goose;
- Mute swan;
- Shelduck;
- Mallard;
- Tufted duck;
- Goosander;
- Pheasant;
- Red-legged partridge;
- Swift;
- Stock dove;
- Collared dove;
- Moorhen;
- Coot;

- Cormorant;
- Grey heron;
- Sparrowhawk;
- Red kite;
- Buzzard;
- Barn owl;
- Tawny owl;
- Kingfisher;
- Great spotted woodpecker;
- Kestrel;
- Hobby;
- Jay;
- Magpie;
- Jackdaw;
- Rook;
- Carrion crow;
- Sand martin;
- Swallow;
- House martin;
- Long-tailed tit;
- Willow warbler;
- Goldcrest;
- Starling;
- Mistle thrush; and,
- Pied wagtail.

3.4 Ground-nesting Notable Species

Skylark

3.4.1 There were six skylark territories recorded within the Site, and a further four skylark territories recorded within the Compensation Area, giving ten skylark territories recorded across the Survey Area (Site and Compensation Area combined).

3.4.2 The skylark breeding density recorded within the Site and Compensation Area were both 0.14 territories per hectare (6 pairs within the 42.8ha Site and 4 within 28.25ha Compensation Area). The density is comparable (and considered below) to average densities typically recorded in arable farmland habitats (see Donald, 2004⁹; Fox, 2022¹⁰). Arable fields within the Site comprised of barely crop during the survey period, which as a spring cereal typically supports an average skylark density of 0.46 territories per hectare (Fox, 2022).

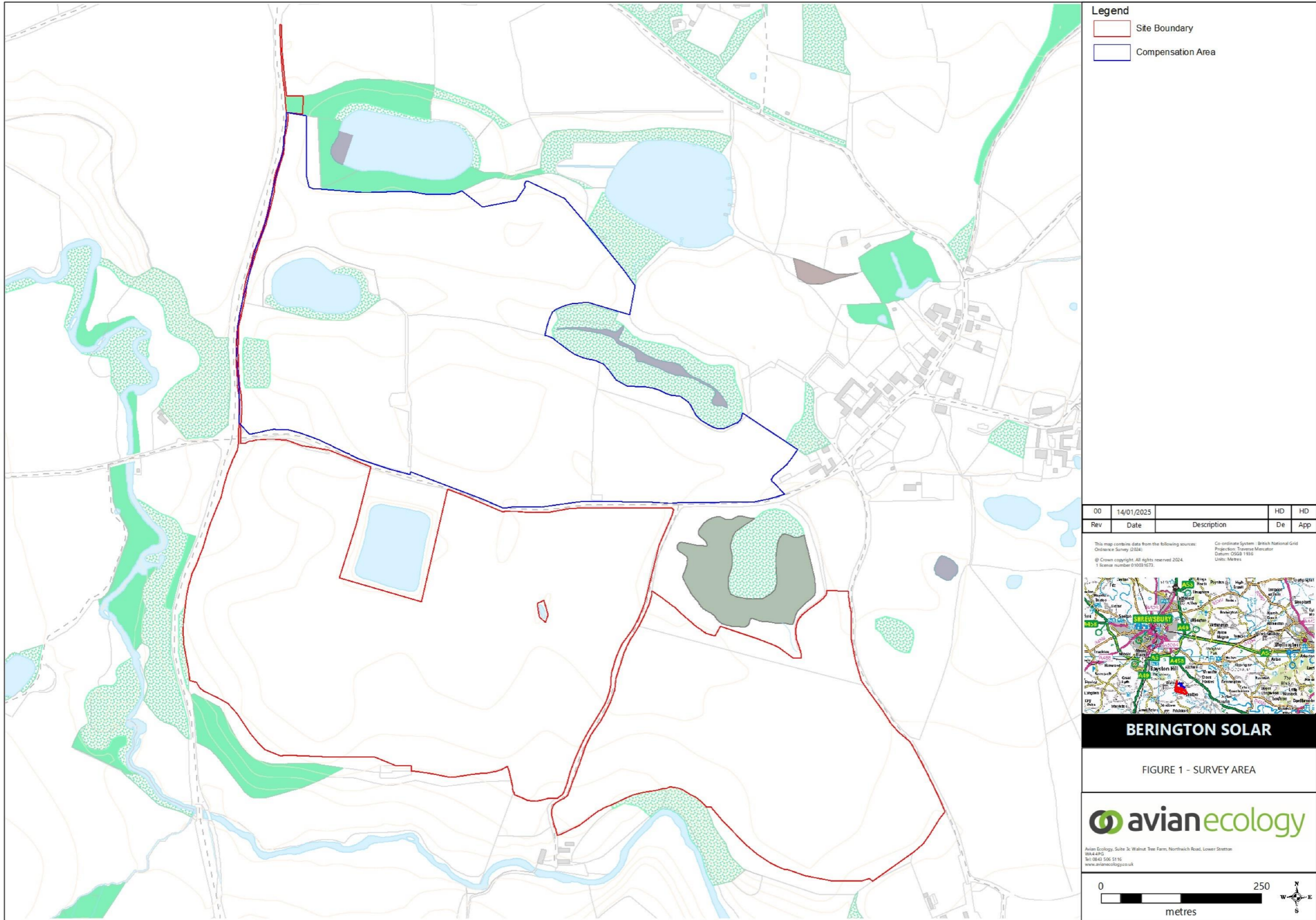
Yellow Wagtail

3.4.3 Two Yellow wagtails territories were recorded, both located within the Site.

⁹ Donald, P.F. (2004). *The Skylark*. Poyser, London.

¹⁰ Fox, H. (2022) Are Skylarks Being Overlooked in Impact Assessment? *CIEEM, Inpractice*, **117**, September 2022, pp. 47-51.

FIGURE 1. SURVEY AREA



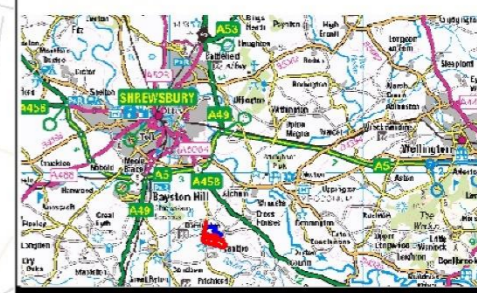
Legend

	Site Boundary
	Compensation Area

Rev	Date	Description	HD	HD
00	14/01/2025			

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 Units: Metres

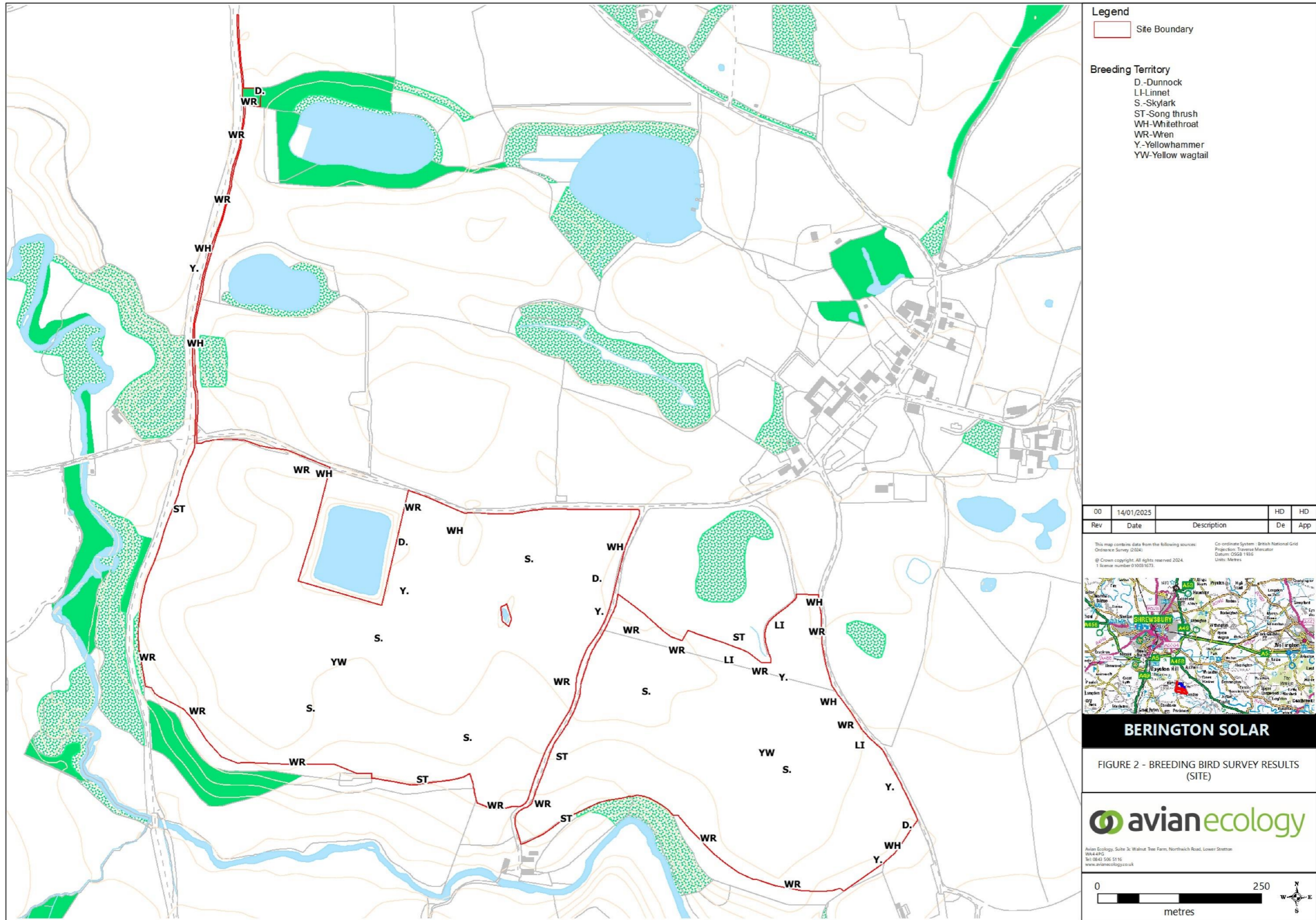


BERINGTON SOLAR

FIGURE 1 - SURVEY AREA



FIGURE 2. BREEDING BIRD SURVEY RESULTS (SITE)

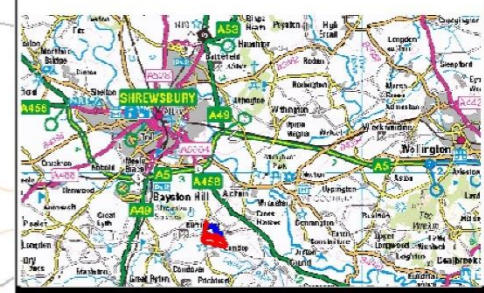


- Legend**
- Site Boundary
- Breeding Territory**
- D.-Duncock
 - LI-Linnet
 - S.-Skylark
 - ST-Song thrush
 - WH-White-throat
 - WR-Wren
 - Y.-Yellowhammer
 - YW-Yellow wagtail

Rev	Date	Description	HD	HD
00	14/01/2025			

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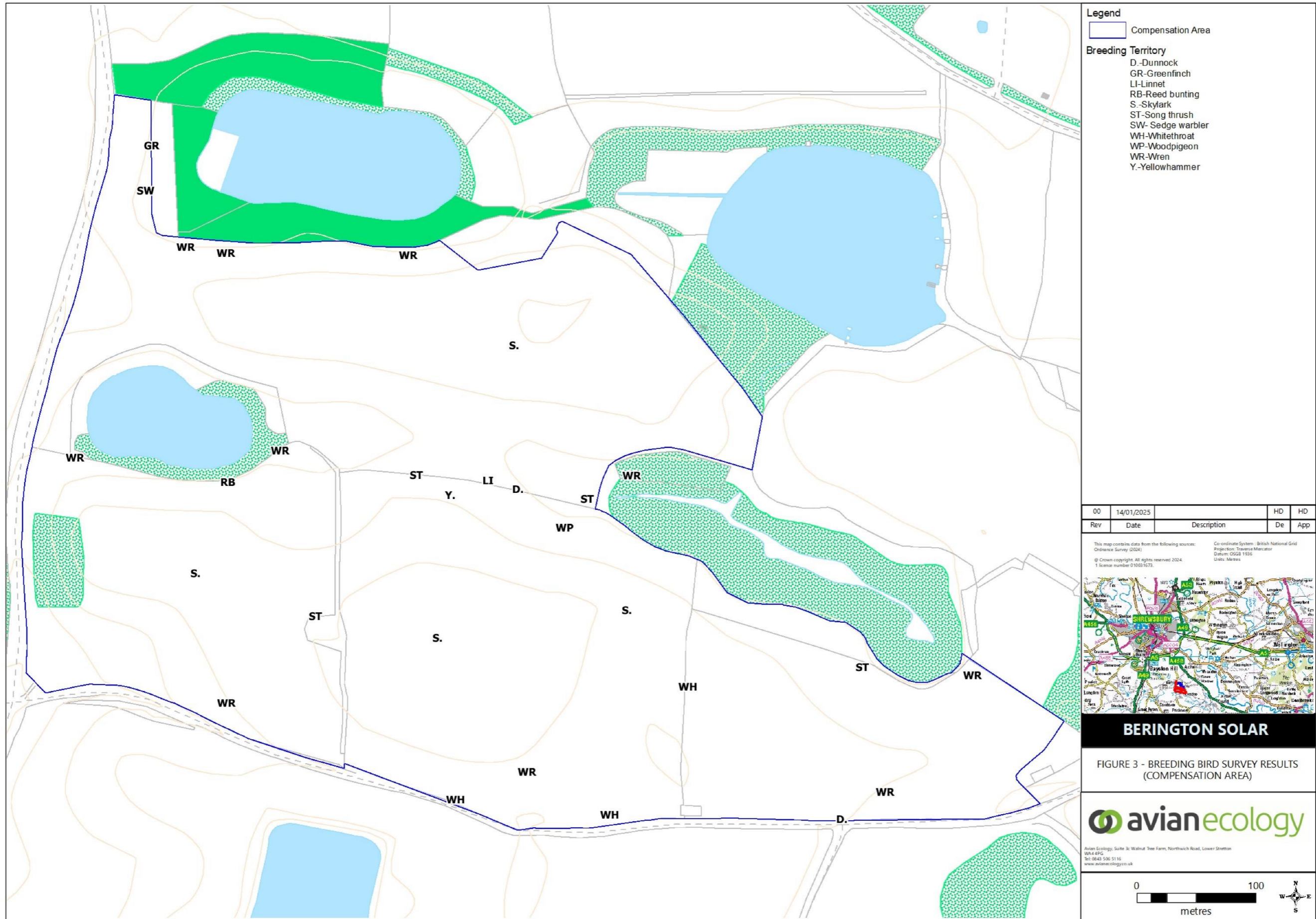


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FIGURE 2 - BREEDING BIRD SURVEY RESULTS (SITE)



FIGURE 3: BREEDING BIRD SURVEY RESULTS (COMPENSATION AREA)



ANNEX 1: BIRD SPECIES SUMMARY

Table A1 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:

- Ann 1 – European Birds Directive Annex I species;
- Sch1.1/1.1A/A1/1.2 – Schedule 1 part 1, 1 part 1A, A1 or 1 part 2 of the Wildlife and Countryside Act 1981 (as amended);
- BoCC – Birds of Conservation Concern as listed by leading bird conservation organisations in the UK, including the RSPB and BTO. Red, Amber and Green categories are given (Stanbury *et al.*, 2021 and Stanbury *et al.*, 2024);
- Sec41 – species listed as rare and most threatened on the NERC Act (2006); and,
- LBAP – species listed under the Shropshire Local Biodiversity Action Plan.

Table A1: Summary of bird species.

Common name	Species name	Conservation status
Canada goose	<i>Branta canadensis</i>	
Greylag goose	<i>Anser anser</i>	Amber
Mute swan	<i>Cygnus olor</i>	Green
Shelduck	<i>Tadorna tadorna</i>	Amber
Mallard	<i>Anas platyrhynchos</i>	Amber
Tufted duck	<i>Aythya fuligula</i>	Green
Goosander	<i>Mergus merganser</i>	Green
Pheasant	<i>Phasianus colchicus</i>	
Red-legged partridge	<i>Alectoris rufa</i>	
Swift	<i>Apus apus</i>	Red
Stock dove	<i>Columba oenas</i>	Amber
Woodpigeon	<i>Columba palumbus</i>	Amber
Collared dove	<i>Streptopelia decaocto</i>	Green
Moorhen	<i>Gallinula chloropus</i>	Amber
Coot	<i>Fulica atra</i>	Green
Cormorant	<i>Phalacrocorax carbo</i>	Green
Grey heron	<i>Ardea cinerea</i>	Green
Sparrowhawk	<i>Accipiter nisus</i>	Amber
Red kite	<i>Milvus milvus</i>	NT; Green; Sch1.1 & 1A; Ann1
Buzzard	<i>Buteo buteo</i>	Green
Barn owl	<i>Tyto alba</i>	Green; Sch1.1; LBAP
Tawny owl	<i>Strix aluco</i>	Amber
Kingfisher	<i>Alcedo atthis</i>	Green; Sch1.1; Ann1
Great spotted woodpecker	<i>Dendrocopos major</i>	Green
Kestrel	<i>Falco tinnunculus</i>	Amber
Hobby	<i>Falco subbuteo</i>	Green; Sch1.1; RBBP
Jay	<i>Garrulus glandarius</i>	Green
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

Common name	Species name	Conservation status
Blue tit	<i>Cyanistes caeruleus</i>	Green
Great tit	<i>Parus major</i>	Green
Skylark	<i>Alauda arvensis</i>	Red; Sec41; LBAP
Sand martin	<i>Riparia riparia</i>	Green
Swallow	<i>Hirundo rustica</i>	Green
House martin	<i>Delichon urbicum</i>	Red
Long-tailed tit	<i>Aegithalos caudatus</i>	Green
Willow warbler	<i>Phylloscopus trochilus</i>	Amber
Chiffchaff	<i>Phylloscopus collybita</i>	Green
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	Amber
Blackcap	<i>Sylvia atricapilla</i>	Green
Garden warbler	<i>Sylvia borin</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
Starling	<i>Sturnus vulgaris</i>	Red; Sec41
Song thrush	<i>Turdus philomelos</i>	Amber; Sec41; LBAP
Mistle thrush	<i>Turdus viscivorus</i>	Red
Blackbird	<i>Turdus merula</i>	Green
Robin	<i>Erithacus rubecula</i>	Green
Stonechat	<i>Saxicola rubicola</i>	Green
Dunnock	<i>Prunella modularis</i>	Amber; Sec41
Yellow wagtail	<i>Motacilla flava</i>	Red; Sec41
Pied wagtail	<i>Motacilla alba yarellii</i>	Amber
Chaffinch	<i>Fringilla coelebs</i>	Green
Greenfinch	<i>Chloris chloris</i>	Red
Linnet	<i>Linaria cannabina</i>	Red; Sec41; LBAP
Goldfinch	<i>Carduelis carduelis</i>	Green
Yellowhammer	<i>Emberiza citrinella</i>	Red; Sec41; LBAP
Reed bunting	<i>Emberiza schoeniclus</i>	Amber; Sec41; LBAP

ANNEX 2: BREEDING BIRD SURVEY EFFORT

Visit	Date	Start Time (24 hrs)	End time (24 hrs)	Sunrise / Sunset (24 hrs)	Wind Speed	Wind Direction	Rain	Cloud Height	Cloud Cover	Visibility	Frost	Snow	Temperature (°C)
1	25/04/2024	05:45	11:00	05:50 / 20:10	4	W - NW	0	2	2/8 – 5/8	2	0	0	3 - 11
2	09/05/2024	05:00	12:00	05:23 / 20:29	1	W - SW	0	2	1/8	2	0	0	10 - 18
3	21/05/2024	04:55	10:35	05:02 / 20:55	1	N	0	2	3/8 – 5/8	2	0	0	7.5 -14
4	06/06/2024	17:28	22:36	04:49 / 21:31	3 - 5	W	0	2	2/8 – 4/8	2	0	0	10 - 16
5	18/06/2024	04:28	09:50	04:43 / 21:58	2 - 3	NW	0	2	7/ - 8/8	2	0	0	11 - 15
6	11/07/2024	04:48	09:56	04:59 / 21:45	2 - 3	W	0 - 1	2	8/8	2	0	0	14 – 16.5

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		Light Showers	1			150-500m	1
Light breeze	2	N	Heavy Showers	2			>500m	2
Mod. breeze	4	NE	Light rain	3				
Fresh breeze	5	ENE	Heavy rain	4				
Strong breeze	6	E						
Mod. gale	7	Etc	Visibility		Snow		Frost	
Fresh gale	8		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	2
Storm	11							