

Bishops Dal BESS

Breeding Birds Survey Report
2025

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Project	Bishops Dal BESS – Breeding Bird Survey Report
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1 Introduction

- 1.1 BSG Ecology was commissioned by Bishops Dal Energy Storage Ltd. in January 2025 to undertake breeding bird surveys at farmland at Bishops Dal, near Coldstream, Scottish Borders ('the Site'). The surveys encompassed land within the supplied red line site boundary, and a 50 m buffer ('the Survey Area').

Description of project

- 1.2 The client proposes to construct a battery energy storage system (BESS) and associated infrastructure on the Site, including two access points from the A697 immediately north of the Site, and associated soft landscaping as illustrated in the current landscape masterplan (Drawing Number: P24-0160_EN_08_E, Appendix 1).

Site description

- 1.3 The Site is approximately 13.2 hectares (ha) in size and is situated at central ordnance survey grid reference NT 79154 41293. The location of the Site is shown on Figure 1. The Site slopes gently to the north east and is dominated by agricultural crop, delineated by hedgerows and ditches, with blocks of woodland along the southern boundary. The Site is approximately 5.25 km north west of Coldstream.
- 1.4 The wider landscape is dominated by agricultural land, largely arable but isolated pasture fields are present. Discreet blocks of plantation woodland (mostly conifer) are present to the south and east of the Site. Eccles substation is to the immediate north of the Site, separated by the A697.
- 1.5 The Site is not subject to any nature conservation designations, though the scheme lies within the Impact Risk Zones identified for Sites of Special Scientific Interest for the area, currently presented in Defra's interactive map (<https://magic.defra.gov.uk/MagicMap.aspx>). Consultation with Natural England is not required for the proposed development as it is unlikely to have harmful effects on the Sites of Special Scientific Interest (<https://naturalengland-defra.opendata.arcgis.com/>).

Purpose of report

- 1.6 The aim of this report is to present the methods and results only, of the survey for breeding birds undertaken between March and June 2025. Potential impacts and proposed mitigation measures for breeding birds are considered in the Ecological Impact Assessment (BSG Ecology, 2025).

Personnel

- 1.7 The breeding bird surveys were completed by Tom Cadwallender. Tom is an experienced ornithologist who has been undertaking breeding bird surveys in England and Scotland for nearly 40 years, for both professional consultancies and volunteer organisations such as the British Trust for Ornithology (BTO).
- 1.8 This report was prepared by Harry Glass BSc (Hons) MSc, Ecologist at BSG Ecology. Harry has worked as an ecological consultant for three years and has authored several breeding bird survey and monitoring reports.
- 1.9 This report was reviewed by Ian Heard BSc (Hons) ACIEEM, Principal Ecologist at BSG Ecology. Ian has worked as an ecological consultant for 14 years and has extensive experience as a professional ornithologist and technical reviewer of breeding bird survey reports.
- 1.10 Further details of experience and qualifications can be found at <http://www.bsg-ecology.com/people>

2 Methods

Field survey

Survey of breeding birds

- 2.1 Six breeding bird surveys were undertaken between March to June 2025 in suitable weather conditions. Five diurnal surveys and one crepuscular survey were undertaken, in accordance with the current industry standard survey guidance (Bird Survey and Assessment Steering Group, 2024). Diurnal surveys were timed to coincide with the peak period of bird activity, commencing within 30 minutes either side of sunrise and concluding before mid-morning. The crepuscular survey commenced approximately one hour before sunset and concluded approximately 15 minutes after sunset (see Consideration of potential limitations, below). Survey details are presented in **Table 1**:

Table 1: Survey of breeding birds details.

Date	Timing	Sunrise / sunset*	Temperature	Wind speed (Beaufort scale)	Cloud cover (Oktas)	Precipitation	Visibility
25/03/2025	06:20 – 07:50	05:57	10°C	1	5	None	>2 km
11/04/2025	06:30 – 08:05	06:13	8°C	1	2	None	>2 km
28/04/2025	19:20 – 20:55	20:41*	15°C	2	7	None	>2 km
13/05/2025	05:20 – 06:50	05:01	8°C	1	6	None	>2 km
03/06/2025	04:45 – 06:10	04:31	9°C	2	8	Light intermittent	>2 km
17/06/2025	04:40 – 06:10	04:24	14°C	2	8	None	>2 km

- 2.2 As per guidance the surveys employed the 'look-see' methodology (Gilbert *et al.*, 1998) involving the observation of habitats along a pre-determined survey transect route and stopping at intervals to scan the Survey Area for birds using binoculars. All species heard and/or observed using or flying over the Site were recorded onto base maps using standard British Trust for Ornithology ('BTO') Species Codes, in accordance with standard practice (Bibby, *et al.*, 2000; Gilbert, *et al.*, 1998).
- 2.3 Where observed, the following breeding activities were noted to aid determination of breeding status:
- Singing male in suitable habitat;
 - Adult visiting probable nest Survey Area;
 - Nest building (including excavating nest hole);
 - Distraction display or injury feigning;
 - Used nest found;
 - Recently fledged young;
 - Adult carrying faecal sac or food;
 - Adult entering or leaving nest Survey Area in circumstances indicating occupied nest;
 - Nest with eggs found, or bird sitting but not disturbed, or eggshells found near nest; and

- Nest with young.

2.4 Bird species were also recorded during the survey visits for which no evidence of breeding was noted. This included:

- Individuals flying over the Survey Area;
- Species which may breed locally but for which suitable nesting habitat does not occur within the Survey Area;
- Species where no behaviour was observed that suggested breeding was taking place.

Territory mapping

2.5 The bird survey data collected was used to estimate the number and approximate locations of each territory recorded within the Survey Area, as well as the habitats they were using, with presumed territory centres mapped where appropriate. Registrations for each species from each survey visit were mapped and used to identify territory clusters.

2.6 Breeding bird territories were assigned the following categories: confirmed (direct evidence of breeding, as listed above, recorded); probable (bird holding territory and recorded in suitable nesting habitat on at least two occasions); possible (bird recorded in suitable nesting habitat on one occasion). Non-breeding i.e. birds flying over (but not using) the Survey Area were recorded but not included in the breeding bird assemblage.

2.7 For the purposes of this assessment, birds that were considered to be 'probable' breeders have been treated as 'confirmed' territories and have not been differentiated between within this report or in Figure 1 presented in Section 5. This is a precautionary approach but reflects the likelihood of the birds holding 'probable territories' to have at least attempted to breed, even if unsuccessfully during the survey period. Birds that were recorded as possible breeding are considered to be non-breeders within this report as they did not show sufficient evidence to indicate a breeding territory.

2.8 All territories falling at least partly inside the Survey Area were included in the area totals, even when some of the registrations forming the territory cluster fell outside the Survey Area.

Consideration of potential limitations

2.9 The crepuscular survey visit was concluded approximately 15 minutes after sunset. Standard industry guidance recommends that the survey is undertaken for a minimum of one hour after sunset. This is not considered to be a significant limitation as the habitats within the Site were unsuitable to support species such as barn owl *Tyto alba* and woodcock *Scolopax rusticola* for which the methodology was designed. In this instance the nocturnal visit was intended to determine if crepuscular species were utilising the woodland within the survey buffer. These species would begin to leave their diurnal roosts sites prior to and around sunset and would likely have been observed before the end of the surveys. Therefore this is not considered to be a significant limitation.

3 Results

- 3.1 In total, 37 species were recorded within the Survey Area during surveys conducted by BSG Ecology in 2025. Of which, six were BoCC Red List species, 11 were BoCC Amber List species, and 20 were BoCC Green List species.
- 3.2 A total of 19 species were considered to be confirmed breeding within the Survey Area. Of these, 3 were red-listed species: skylark *Alauda arvensis*, tree sparrow *Passer montanus* and yellowhammer *Emberiza citrinella*.
- 3.3 Additionally, seven amber-listed species were considered to be breeding: dunnoek *Prunella modularis*, common whitethroat *Sylvia communis*, reed bunting *Emberiza schoeniclus*, sedge warbler *Acrocephalus schoenobaenus*, song thrush *Turdus philomelos*, willow warbler *Phylloscopus trochilus* and wren *Troglodytes troglodytes*.
- 3.4 The remaining nine confirmed breeding species were all Green List species and are of low conservation concern. As such, they are not considered further within this report.
- 3.5 A total of 11 additional species were observed but not considered to have established a territory, either due to unsuitable breeding habitat, or insufficient breeding evidence over the survey period. These have been mapped as 'possible' breeders where they were observed in suitable breeding habitat.
- 3.6 Breeding territories are shown in **Figure 1** (Confirmed breeders) and **Figure 2** (non-breeders), Section 5. Both Figures include information on the conservation status of birds with reference to the Birds of Conservation Concern (BoCC) (Stanbury *et al.*, 2021). Results are summarised in **Table 2**, along with BTO code, number of territories, BoCC status and other designations including their listing on the Scottish Biodiversity List¹ or Schedule 1 of the Wildlife and Countryside Act 1981.

Table 2: Classification of birds recorded in the Survey Area.

BTO code	Common name	Scientific name	Confirmed breeding territories	Non-breeding	BoCC status	Other classifications
FF	Fieldfare	<i>Turdus pilaris</i>	-	✓	Red	Schedule 1
P.	Grey partridge	<i>Perdix perdix</i>	-	✓	Red	SBL
LI	Linnet	<i>Linaria cannabina</i>	-	✓	Red	SBL
S.	Skylark	<i>Alauda arvensis</i>	2		Red	SBL
TS	Tree sparrow	<i>Passer montanus</i>	1		Red	SBL
Y.	Yellowhammer	<i>Emberiza citrinella</i>	2		Red	SBL
BF	Bullfinch	<i>Pyrrhula pyrrhula</i>	-	✓	Amber	SBL
D.	Dunnock	<i>Prunella modularis</i>	1		Amber	
K.	Kestrel	<i>Falco tinnunculus</i>	-	✓	Amber	SBL

¹ As listed in <https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy/scottish-biodiversity-list>

RT	Redstart	<i>Phoenicurus phoenicurus</i>	-	✓	Amber	
RB	Reed bunting	<i>Emberiza schoeniclus</i>	1		Amber	SBL
SW	Sedge warbler	<i>Acrocephalus schoenobaenus</i>	1		Amber	
ST	Song thrush	<i>Turdus philomelos</i>	4		Amber	SBL
WH	Common whitethroat	<i>Curruca communis</i>	1		Amber	
WW	Willow warbler	<i>Phylloscopus trochilus</i>	4		Amber	
WP	Woodpigeon	<i>Columba palumbus</i>	-	✓	Amber	
WR	Wren	<i>Troglodytes troglodytes</i>	8		Amber	
B.	Blackbird	<i>Turdus merula</i>	5		Green	
BC	Blackcap	<i>Sylvia atricapilla</i>	-	✓	Green	
BT	Blue tit	<i>Cyanistes caeruleus</i>	1		Green	
BZ	Buzzard	<i>Buteo buteo</i>	1		Green	
C.	Carrion crow	<i>Corvus corone</i>	-	✓	Green	
CH	Chaffinch	<i>Fringilla coelebs</i>	3		Green	
CC	Chiffchaff	<i>Phylloscopus collybita</i>	9		Green	
CT	Coal tit	<i>Periparus ater</i>	1		Green	
CD	Collared dove	<i>Streptopelia decaocto</i>	-	✓	Green	
GW	Garden warbler	<i>Sylvia borin</i>	-	✓	Green	
GC	Goldcrest	<i>Regulus regulus</i>	-	✓	Green	
GO	Goldfinch	<i>Carduelis carduelis</i>	-	✓	Green	
GS	Great spotted woodpecker	<i>Dendrocopos major</i>	1		Green	
GT	Great tit	<i>Parus major</i>	-	✓	Green	
JD	Jackdaw	<i>Coloeus monedula</i>	-	✓	Green	
J.	Jay	<i>Garrulus glandarius</i>	-	✓	Green	
LT	Long-tailed tit	<i>Aegithalos caudatus</i>	1		Green	

PW	Pied wagtail	<i>Motacilla alba</i>	-	✓	Green	
R.	Robin	<i>Erithacus rubecula</i>	6		Green	
SK	Siskin	<i>Spinus spinus</i>	-	✓	Green	SBL

- 3.7 Accounts of the territories of BoCC Red and Amber listed species considered to be breeding on the Site are provided below.

Birds of Conservation Concern Red Listed

- 3.8 Two skylark territories were recorded in the Survey Area. One territory is found off-Site in the field to the north-west, near the western proposed access point. The second territory was found in the centre of the Site at the proposed footprint of the BESS and adjacent landscaping (see Appendix 1).
- 3.9 One tree sparrow territory found off Site in the trees immediately adjacent the proposed western access point at the A697. No territories directly on Site.
- 3.10 Two yellowhammer territories were recorded in the Survey Area. One territory was found off Site, in a hedgerow immediately north of the proposed western access route, separated from Site via the existing farm track. The second territory was found on Site at the existing hedgerow immediately north of Egerton Covert.

Birds of Conservation Concern Amber Listed

- 3.11 One dunnock territory was recorded on Site in the hedgerow at the Site's north-western boundary, along the proposed western access route.
- 3.12 One reed bunting territory was recorded in the Survey Area, within the drainage ditch running between the northern and central field. No territories were found on Site.
- 3.13 –One sedge warbler territory was recorded in the Survey Area, within the drainage ditch running between the northern and central field. No territories were found on Site.
- 3.14 Four song thrush territories were recorded in the Survey Area, in the woodland to the south and east. No territories were found on Site.
- 3.15 One common whitethroat territory was found in the Survey Area, in woodland adjacent the A697 to the north-east of Site. No territories were recorded on Site.
- 3.16 Four willow warbler territories were found in the Survey Area, in the woodland and hedgerows fringing the Site. No territories were recorded on Site.
- 3.17 Eight wren territories were found in the Survey Area, evenly distributed in the woodland and hedgerows fringing the Site. No territories were recorded on Site.

Schedule 1 species

- 3.18 Fieldfare are listed on Schedule 1 of the Wildlife and Countryside Act 1981, which affords protection to their nests from intentional or reckless disturbance. A flock of 275 fieldfare were recorded in the Survey Area at Crown Gorse woodland, immediately south of the Site. Fieldfare were observed only during the March survey and were not recorded subsequently. The UK breeding distribution of fieldfare is restricted to the far north of Scotland in habitats that are not present in the vicinity of the Site. It is considered that these birds were on passage before migrating north, and are not nesting on or near the Site.
- 3.19 No other species listed on Schedule 1 were recorded during the surveys.

Summary

- 3.20 Overall, the breeding bird interest of the Site is considered to be low due to only 3 breeding territories (of birds of conservation concern) being recorded on Site. Confirmed territories located on Site were limited to one skylark, one yellowhammer and one dunnock (other species with territories on Site are of low conservation concern). Territories recorded in the Survey Area adjacent the Site are predominantly of passerine species, dependant on hedgerow and woodland habitats fringing the Site, which are to be retained and protected during construction and operational phases.

4 References

Bibby, C.J., Burgess, N.D, Hill, D.A, and Mustoe, S.H (2000) Bird census techniques. Academic Press, London.

Bird Survey & Assessment Steering Group. (2024). Bird Survey Guidelines for assessing ecological impacts, <https://birdsurveyguidelines.org>

Gilbert, G., Gibbons, D.W and Evans, J. (1998) Bird monitoring methods: A manual of techniques for UK key species. The Royal Society for the Protection of Birds (RSPB), Sandy, Bedfordshire, England.

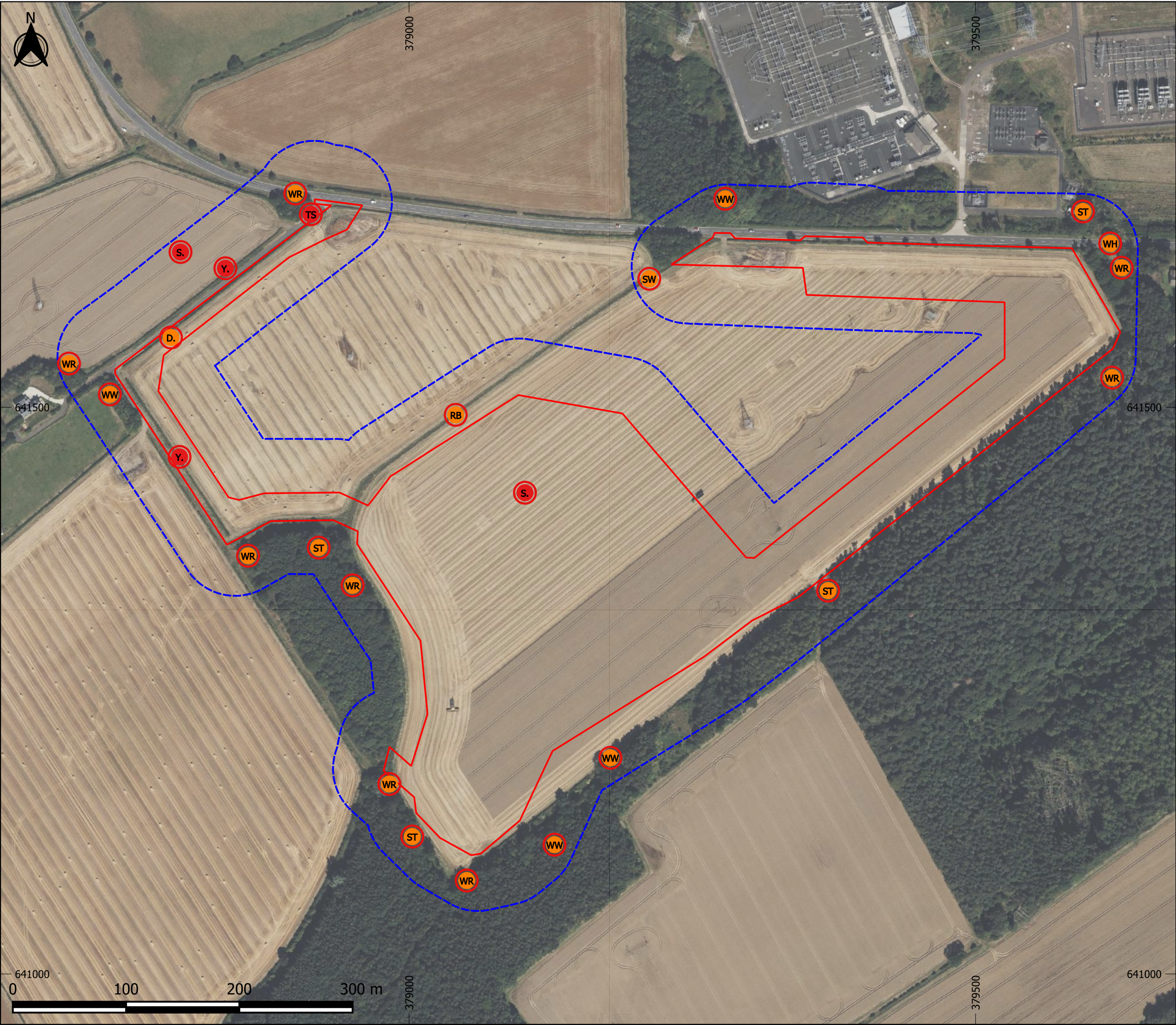
Stanbury A., Eaton M., Aebischer N., Balmer D., Brown A., Douse A., Lindley P., McCulloch N., Noble D. and Win I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114**: 723–747. (BoCC5)

5 Figures

Figure 1: Confirmed breeders

Figure 2: Possible breeders

(overleaf)



Legend

- CH Red Confirmed Breeding
- CH Amber Confirmed Breeding
- Survey boundary
- Site boundary

BTO Code	Common Name
D.	Dunnock
RB	Reed Bunting
S.	Skylark
ST	Song Thrush
SW	Sedge Warbler
TS	Tree Sparrow
WH	Whitethroat
WR	Wren
WW	Willow Warbler
Y.	Yellowhammer



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PROJECT TITLE
BISHOPS DAL BESS

DRAWING TITLE
Figure 1: Confirmed breeding territories

DATE: 24/07/2025 CHECKED: HG SCALE: 1:3,200
DRAWN: SP APPROVED: IH VERSION:1.1

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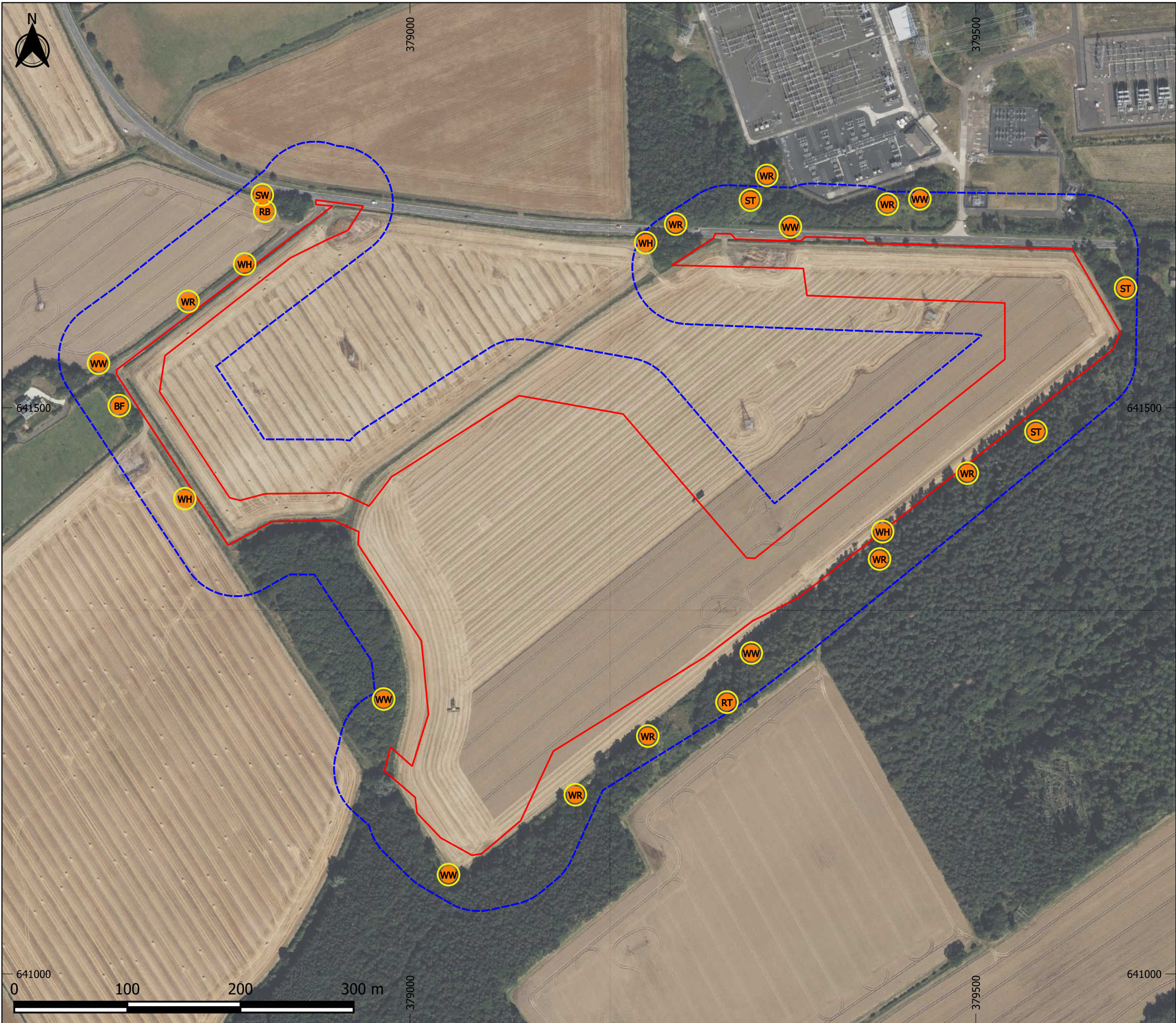
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Sources: BSG Ecology survey data



Legend

CH

Amber Possible Breeding

Survey boundary

Site boundary

BTO Code	Common Name
BF	Bullfinch
RB	Reed Bunting
RT	Common Redstart
ST	Song Thrush
SW	Sedge Warbler
WH	Whitethroat
WR	Wren
WW	Willow Warbler



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DRAWING TITLE
Figure 2: Possible breeding territories

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DRAWN: SP

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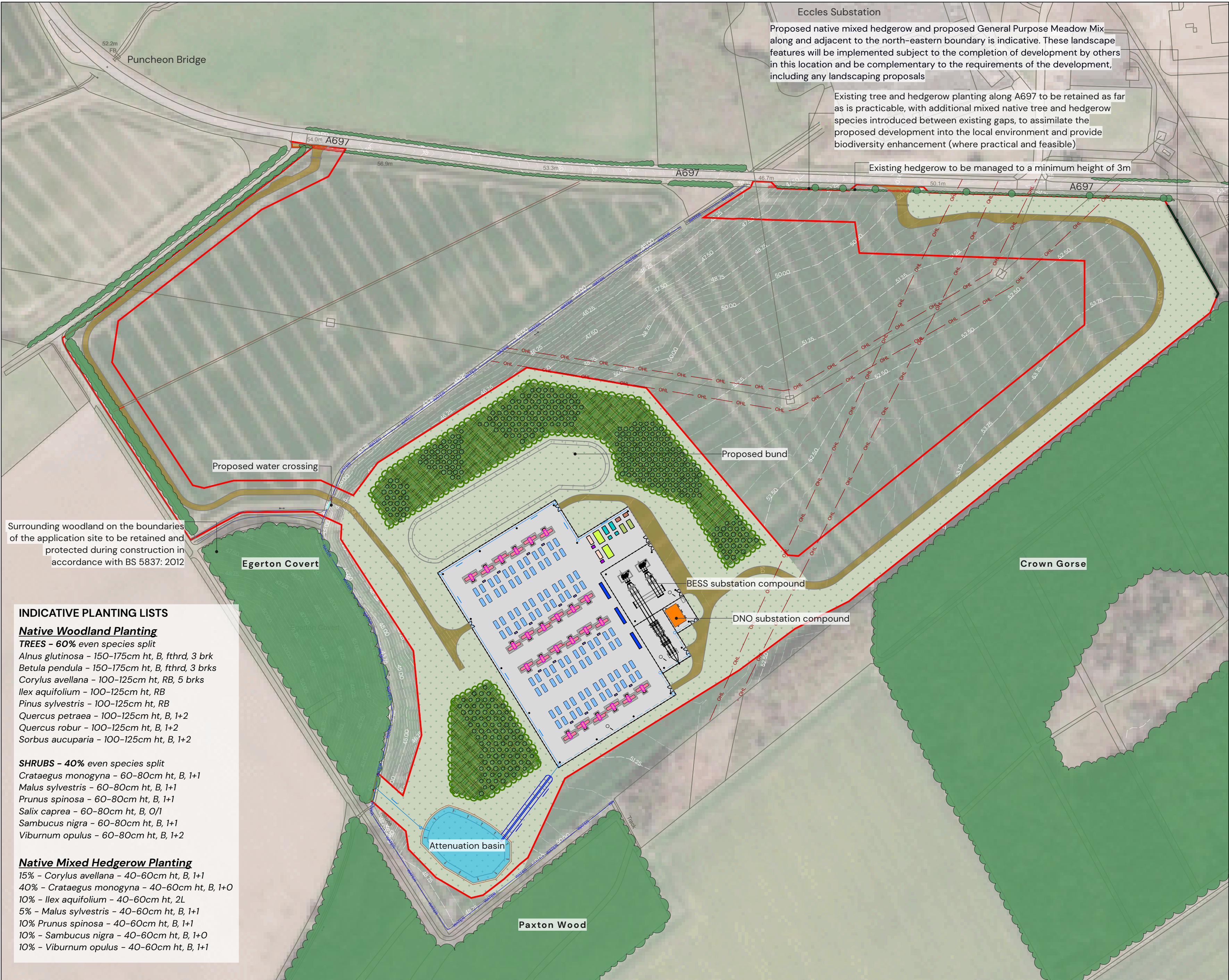
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Sources: BSG Ecology survey data

Appendix 1: Landscape masterplan

(Overleaf)

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