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LAPWING COMPENSATION FIELD MANAGEMENT PLAN

PLANNING APPLICATION NUMBER: 232653

SPENCER'S WOOD SOLAR FARM

Prepared for: Greentech

Date: May 2026

Report Reference: JN00833/D03

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1. INTRODUCTION

Background

- 1.1 This Management Plan has been prepared to discharge the requirements of the third schedule within the s106 agreement attached to planning permission 232653, which permits the construction of Spencer's Wood Solar Farm (the 'site') on Land North of Sheepbridge Court Farm, Basingstoke Road, Swallowfield, RG7 1PT.
- 1.2 According to the Section 106 agreement, the skylark *Alauda arvensis* and lapwing *Vanellus Vanellus* compensation plan is defined as:

"a detailed plan showing the proposed location of the Compensation Fields, providing a baseline survey and detailing measures to be implemented on an annual basis to provide compensation for the loss of Skylark territory and Lapwing territory as a result of the Development and including such other details and information as the Council may reasonably specify".

Purpose of this Document

- 1.3 This Management Plan has been prepared to support the provision of compensatory habitat for breeding lapwing (a separate Management Plan has been prepared for skylark Ref: JN00833/D02). The purpose of this document is to demonstrate how the designated compensation field will be managed, enhanced, and monitored to provide appropriate compensation for the loss of lapwing breeding territories as a result of the proposed solar farm.
- 1.4 The plan has been prepared in accordance with relevant best practice conservation advice, including Natural England Technical Information Note *TIN090 - Illustrated guide to managing farmland for lapwings and RSPB's Lapwing conservation - Advice for farmers*.

Lapwing Ecology

- 1.5 Lapwings are birds of open, largely unwooded countryside, strongly associated with short-sward habitats such as lowland farmland, wet grassland, river floodplains, coastal grazing marsh and other where they can nest and forage effectively. Breeding density varies with habitat conditions and management, but wet grassland and semi-natural pasture often support higher densities than intensively managed arable fields, particularly when key factors such as water levels and vegetation structure favour foraging success and nest site availability (Ausden et al. 2002; Wilson et al. 2005).

- 1.6 The UK lapwing population experienced substantial declines during the late 20th century, with national surveys indicating long-term reductions in breeding numbers across England and Wales between the 1980s and early 2000s (Wilson et al. 2005; Milsom 2005). Intensification of agriculture, including drainage of wet grasslands, conversion to arable or heavily improved grassland, loss of mixed farming systems, and changes in cropping practices and grazing regimes, has reduced the extent and quality of suitable breeding habitat for lapwings (BTO research; Wilson et al. 2005; Sharpe 2006).
- 1.7 Population decline in lapwings has also been linked to changes in food availability, particularly soil and surface-dwelling invertebrates, which form a major component of chick diet during the breeding season (Johansson & Blomqvist 1996).
- 1.8 Research on farmland biodiversity indicates that intensive agricultural practices can reduce invertebrate abundance and diversity, particularly in regions dominated by cropland with high fertiliser and pesticide inputs, which in turn can negatively affect food availability during critical breeding periods.
- 1.9 During winter, adult lapwings forage predominantly on soil invertebrates and plant material across a range of grassland and stubble habitats.

Project Description

- 1.10 The project comprises the installation of a ground mounted solar photovoltaic (PV) farm along with ancillary infrastructure, substation, security fencing, landscaping provision, ecological enhancements and associated works.
- 1.11 A field has been designated for lapwing compensation and is denoted by the blue boundary on Figure 1, below.

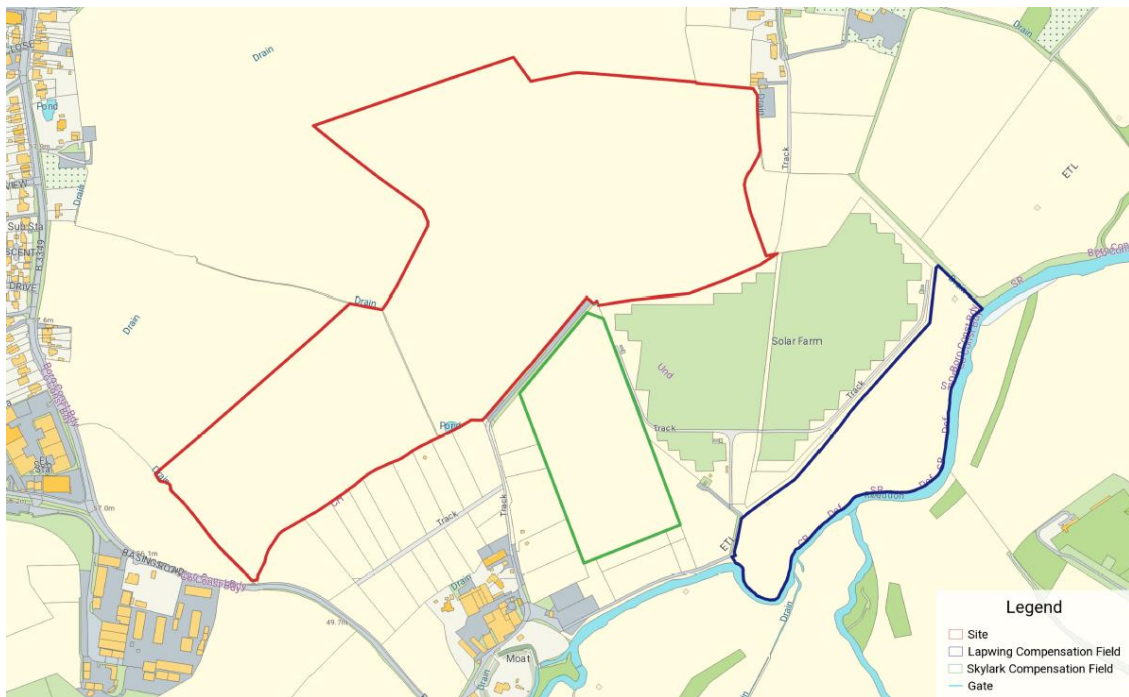


Figure 1 - Lapwing Compensation Field (Blue Boundary)

2. ECOLOGICAL BASELINE

Habitats

- 2.1 The Lapwing Compensation Field was surveyed to UKHab standard on 03/02/2026. The habitats recorded are shown on Figure 2 below.



Figure 2 – Habitats recorded within the Lapwing Compensation Field

- 2.2 At the time of survey, the field comprised g3c – Other neutral grassland with secondary codes: 19 – Coastal and floodplain grazing marsh, 32 – Scattered trees, 103 – Horse grazed, 502 – Seasonally wet, 504 – Waterlogged.
- 2.3 The lapwing compensation field is located adjacent to the River Loddon, which flows parallel to the eastern field boundary, and is subject to seasonal inundation and waterlogging, with areas of standing water evident at the time of survey. The river corridor supports a mature tree line

comprising alder *Alnus glutinosa*, crack willow *Salix fragilis*, and ash *Fraxinus excelsior*, with locally tall emergent vegetation, including reed canary-grass *Phalaris arundinacea* and common reed *Phragmites australis*. A second watercourse is located along the northern field boundary, comprising a narrow, linear ditch with a shallow channel and a gravel bed substrate in places. Water levels were moderate at the time of visit with clear evidence of running water. The channel supports a sparse to locally frequent emergent and marginal flora, including water-parsnip *Berula erecta*, floating sweet-grass *Glyceria fluitans*, and brooklime *Veronica beccabunga*, with cleavers *Gallium aparine* frequent along the upper margins and adjacent bank vegetation. The banks of the ditch are generally low and the ditch is closely associated with the adjacent hedgerow (H4), which provides shade and inputs of leaf litter and woody debris.



Photo 1 - River Loddon



Photo 2 - Ditch along northern field boundary

- 2.4 The grassland sward is tussocky and grass-dominated, with Yorkshire fog *Holcus lanatus* locally abundant, alongside cock's-foot *Dactylis glomerata*, fescue species *Festuca spp.*, common bent *Agrostis capillaris*, and perennial rye-grass *Lolium perenne*. Scattered stands of reed canary-grass and common reed were recorded within areas of standing water.
- 2.5 Forbs were generally sparse; however, crane's-bill *Geranium spp.* was frequent throughout, with occasional creeping buttercup *Ranunculus repens*, oxeye daisy *Leucanthemum vulgare*, lesser celandine *Ficaria verna*, and common ragwort *Jacobaea vulgaris* also present.



Photo 3 – Grassland habitat

- 2.6 Scattered young trees were also recorded within the field, particularly adjacent to hedgerow H2. A total of four juvenile individuals were noted, comprising silver birch *Betula pendula* and alder *Alnus glutinosa*. These trees are at an early stage of establishment and currently possess small canopies; however, if left unmanaged, they may contribute to increased habitat fragmentation and elevated predator perching opportunities, potentially reducing the suitability of the field for breeding lapwings.

Four hedgerows were recorded along the north/northwestern field boundaries. The hedgerows are described in Table 1 below.

Table 1 – Hedgerow Descriptions

Hedgerow Reference	UKHab	Secondary Code	Habitat Description
H1	h2a6 – Other	16 – Tall forbs	A newly planted hedgerow is present along the western boundary near the access gate. Species

	native hedgerow		recorded include rose <i>Rosa canina</i> , hawthorn <i>Crataegus monogyna</i> , and dogwood <i>Cornus sanguinea</i> . Early successional ground flora along the hedge base includes cleavers <i>Galium aparine</i> and common nettle <i>Urtica dioica</i> . The feature is currently low and in its establishment phase.
H2	h2a5 – Species-rich native hedgerow		Along the northern boundary adjacent to the solar farm is a more established species-rich hedgerow comprising hawthorn, hazel <i>Corylus avellana</i> , blackthorn <i>Prunus spinosa</i> , and elder <i>Sambucus nigra</i> , with occasional oak <i>Quercus robur</i> and holly <i>Ilex aquifolium</i> .
H3	h2a6 – Other native hedgerow		H3 comprises a newly planted extension of H2, again in early establishment. Recorded planted species include hawthorn, rose and dogwood.
H4	h2a6 – Other native hedgerow	11 – Hedgerow with trees	A mature native hedgerow runs parallel to, and is directly associated with, River Loddon along the eastern field boundary. This hedgerow is relatively species-poor along this section, with hawthorn forming the dominant woody component. Mature ash is present as hedgerow trees, one of which supports a bat box. The hedgerow has a generally dense structure with occasional gaps and variable height. Bramble <i>Rubus fruticosus</i> agg. is interspersed throughout.

Baseline Survey for Lapwing

- 2.7 A breeding bird survey, focused on lapwing, was undertaken on 27/04/2026 of the Lapwing Compensation Field. The survey commenced at sunrise and the survey methodology broadly adhered to a combination of the guidelines outlined by the British Trust for Ornithology (BTO) for Common Bird Census (CBC) and Breeding Bird Survey (BBS) methodologies.
- 2.8 A suitable transect route was walked at a steady pace, pausing briefly at intervals to listen for song and scan for birds moving / flying overhead, observing any birds present within the survey area or the habitats immediately adjacent.

2.9 The data collected included:

- Species and corresponding BTO species code (Appendix 1 - BTO Species Codes);
- Number of birds;
- Age (where possible);
- Sex (where possible); and
- Activity and corresponding BTO activity code (Appendix 2 - BTO Activity Codes).

2.10 Table 2 below sets out the survey details.

Table 2 – Baseline Bird Survey Details

Date	27/04/2026
Time (Start)	05:50
Sunrise	05:48
Description	Bright sunshine, mild, light wind
Cloud Cover	1/8
Visibility	Excellent
Temp (start)	3°C
Temp (finish)	14°C
Wind speed (BF)	0-1
Wind direction	SSW
Rain	None

2.11 During the survey no lapwing were recorded within the Lapwing Compensation Field.

2.12 No red list species were recorded using the Lapwing Compensation Field, but a number of amber list species were recorded, these are shown on Figure 3 below.



Figure 3 – Red and amber list species recorded during the breeding bird survey

2.13 Green list species recorded during the survey are shown on Figure 4, below.

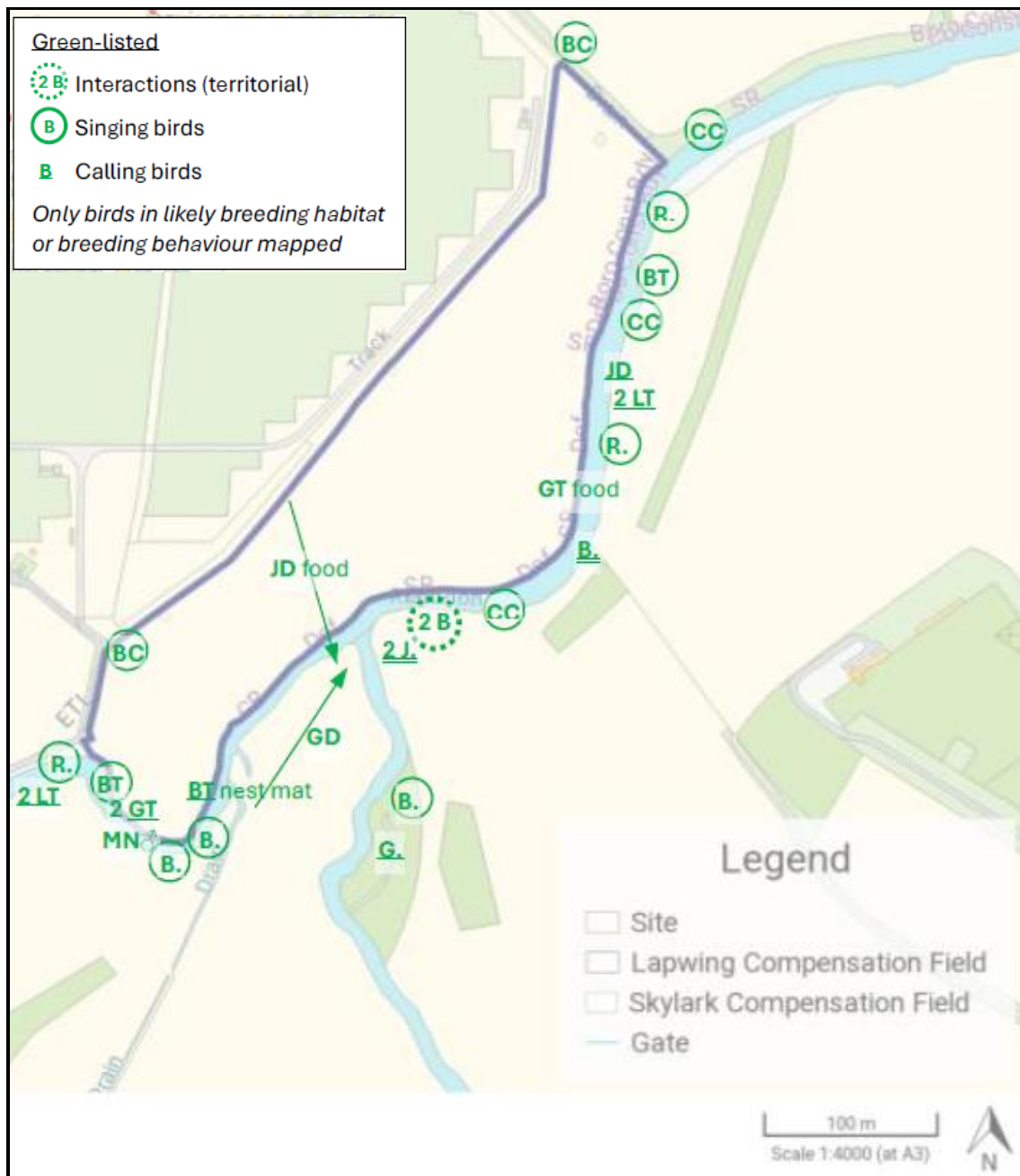


Figure 4 – Green list species recorded during the breeding bird survey

3. HABITAT ENANCEMENT AND MANAGEMENT

Habitat Enhancements

- 3.1 The Lapwing Compensation Field will be enhanced for breeding lapwing through the installation of predator fencing around the perimeter of the field. Predator-exclusion fencing is a highly effective conservation tool for protecting breeding lapwing and other ground-nesting birds, with research indicating it can increase hatching success by restricting access by mammalian predators such as foxes
- 3.2 The predator fencing will meet the following specifications:
- Height: At least 1m above ground level
 - Structure: 12-strand electric fencing or combination fencing (wire mesh + electric)
 - Anti-Digging: The mesh or electric netting must be buried at least 25cm into the ground or securely pegged to prevent predators from going underneath
 - Electric Wires: The bottom wire should be set low to the ground (5cm – 10cm) to stop badgers, with a second wire at 15cm – 20cm. The wires should be alternating live and earth wires at 10cm intervals
 - Offset/Tripwire: A single live wire placed 5cm – 10cm out from the main fence and 15cm – 30cm off the ground acts as an effective deterrent, particularly against foxes jumping over.
 - Visibility: A white top wire is recommended to increase visibility for birds and prevent collision.
- 3.3 The fencing can either be permanent or temporary, whereby it is removed each winter when breeding birds are absent.

Habitat Management

- 3.4 The Lapwing Compensation Field will be managed on a long term basis to support lapwing breeding.

Wet Areas

- 3.5 The field already benefits from its floodplain setting adjacent to the River Loddon, with evident seasonal inundation. The resulting shallow standing water and soft ground conditions provide suitable foraging habitat for lapwing.

Grassland

- 3.6 The grassland will be managed through horse grazing to maintain a predominantly short sward, with vegetation under 5cm across at least 70% of the field. Scattered clumps of 10–15cm vegetation, with occasional taller tussocks, will be retained across approximately 20% of the sward to provide structural variation. To reduce the risk of nest trampling, stocking density will be reduced between mid-March and May.

Bare ground

- 3.7 Autumn grazing on soft ground will create hoof prints and patches of bare ground, which are important features for lapwing nesting and foraging in the following spring and summer. A minimum of 10% bare ground should be maintained. If grazing does not achieve this in any given year, bare ground will be created mechanically by scraping areas of approximately 20m² to a depth of around 20cm.

Reed/Rush Management

- 3.8 The field will be cut/topped to 5cm once a year in late summer after the chicks have fledged (August) to keep rush and reeds in check and at less than 20% cover.

Hedgerow and individual trees

- 3.9 Hedgerows will ideally be cut in February each year to ensure the height is managed to minimise avian predator vantage.
- 3.10 The four individual trees along the northern edge of the field will be pruned annually (outside of the breeding bird season) to ensure the canopies remain small and to minimise the risk from avian predators.

General

- 3.11 There will be no fertiliser and pesticide use within the lapwing compensation area.
- 3.12 The field will be managed for 40 years as a long term secure resource for lapwing.

Management Schedule

- 3.13 The following management programme shows possible months in which activities will commence within the first planting period after construction.

Management Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Grassland cutting/ topping for rush/reed management								✓	✓			
Grazing (* reduced density)	✓	✓	*✓	*✓	*✓	✓	✓	✓	✓	✓	✓	✓
Lapwing scrape creation (if required)	✓	✓						✓	✓	✓	✓	✓
Hedgerow and individual tree pruning to prevent excessive height which could provide predator vantage points	✓	✓							✓	✓	✓	✓

4. LONG-TERM MONITORING

Habitat Surveys

- 4.1 Habitat surveys will be undertaken in Years 1, 2, 3, 5, 10, 15, 20, 25, 30, 35 and 40.
- 4.2 Surveys to be completed in June/July. Habitats will be mapped to UKHab standard and photographs taken as a record.
- 4.3 The survey will assess sward height (should be between no more than 5cm across 70% of the field), % bare ground cover (ideally around 10%) and % tussock cover (no more than 20%).
- 4.4 The habitat survey will also check for scrub and rush encroachment. Remedial action will be recommended if scrub encroachment exceeds 5% and rush encroachment exceeds 20%.
- 4.5 Further remedial measures will be recommended and implemented as necessary based on the results of the monitoring surveys. If remedial measures are required, additional monitoring visits may also be implemented.

Lapwing Surveys

- 4.6 It is proposed that monitoring surveys for lapwings be undertaken. The surveys will include walking transects and recording lapwing activity in accordance with British Trust for Ornithology territory mapping methodology. Three survey visits will be carried out between March and June.
- 4.7 Surveys will commence in Year 1. There after survey will be undertaken in Years 2, 3, 5, 10, 15, 20, 25, 30 ,35 and 40.
- 4.8 Remedial measures will be recommended and implemented as necessary based on the results of the monitoring surveys. If remedial measures are required, additional monitoring visits may also be implemented.

APPENDIX 1

BTO SPECIES CODES

AC	Arctic Skua	GA	Gadwall	LE	Long-eared Owl	SM	Sand Martin
AE	Arctic Tern	GX	Gannet	LT	Long-tailed Tit	SS	Sanderling
AV	Avocet	GW	Garden Warbler	MG	Magpie	TE	Sandwich Tern
BO	Barn Owl	GY	Garganey	MA	Mallard	VI	Savi's Warbler
BY	Barnacle Goose	GC	Goldcrest	MN	Mandarin Duck	SQ	Scarlet Rosefinch
BA	Bar-tailed Godwit	EA	Golden Eagle	MX	Manx Shearwater	SP	Scaup
BR	Bearded Tit	OL	Golden Oriole	MR	Marsh Harrier	CY	Scottish Crossbill
BS	Berwick's Swan	GF	Golden Pheasant	MT	Marsh Tit	SW	Sedge Warbler
BI	Bittern	GP	Golden Plover	MW	Marsh Warbler	NS	Serin
BK	Black Grouse	GN	Goldeneye	MP	Meadow Pipit	SA	Shag
TY	Black Guillemot	GO	Goldfinch	MU	Mediterranean Gull	SU	Shelduck
BX	Black Redstart	GD	Goosander	ML	Merlin	SX	Shorelark
BJ	Black Tern	GI	Goshawk	M.	Mistle Thrush	SE	Short-eared Owl
B.	Blackbird	GH	Grasshopper Warbler	MO	Montagu's Harrier	SV	Shoveler
BC	Blackcap	GB	Great Black-backed Gull	MH	Moorhen	SK	Siskin
BH	Black-headed Gull	GG	Great Crested Grebe	MS	Mute Swan	S.	Skylark
BN	Black-necked Grebe	ND	Great Northern Diver	N.	Nightingale	SZ	Slavonian Grebe
BW	Black-tailed Godwit	NX	Great Skua	NJ	Nightjar	SN	Snipe
BV	Black-throated Diver	GS	Great Spotted Woodpecker	NH	Nuthatch	SB	Snow Bunting
BT	Blue Tit	GT	Great Tit	OP	Osprey	ST	Song Thrush
BU	Bluethroat	GE	Green Sandpiper	OC	Oystercatcher	SH	Sparrowhawk
BL	Brambling	G.	Green Woodpecker	PX	Peafowl/Peacock	AK	Spotted Crake
BG	Brent Goose	GR	Greenfinch	PE	Peregrine	SF	Spotted Flycatcher
BF	Bullfinch	GK	Greenshank	PH	Pheasant	DR	Spotted Redshank
BZ	Buzzard	H.	Grey Heron	PF	Pied Flycatcher	SG	Starling
CG	Canada Goose	P.	Grey Partridge	PW	Pied Wagtail	SD	Stock Dove
CP	Capercaillie	GV	Grey Plover	PG	Pink-footed Goose	SC	Stonechat
C.	Carrion Crow	GL	Grey Wagtail	PT	Pintail	TN	Stone-curlew
CW	Cetti's Warbler	GJ	Greylag Goose	PO	Pochard	TM	Storm Petrel
CH	Chaffinch	GU	Guillemot	PM	Ptarmigan	SL	Swallow
CC	Chiffchaff	FW	Guineafowl (Helmeted)	PU	Puffin	SI	Swift
CF	Chough	HF	Hawfinch	PS	Purple Sandpiper	TO	Tawny Owl
CL	Cirl Bunting	HH	Hen Harrier	Q.	Quail	T.	Teal
CT	Coal Tit	HG	Herring Gull	RN	Raven	TK	Temminck's Stint
CD	Collared Dove	HY	Hobby	RA	Razorbill	TP	Tree Pipit
CM	Common Gull	HZ	Honey Buzzard	RG	Red Grouse	TS	Tree Sparrow
CS	Common Sandpiper	HC	Hooded Crow	KT	Red Kite	TC	Treecreeper
CX	Common Scoter	HP	Hoopoe	ED	Red-backed Shrike	TU	Tufted Duck
CN	Common Tern	HM	House Martin	RM	Red-breasted Merganser	TT	Turnstone
CO	Coot	HS	House Sparrow	RQ	Red-crested Pochard	TD	Turtle Dove
CA	Cormorant	JD	Jackdaw	FV	Red-footed Falcon	TW	Twite
CB	Corn Bunting	J.	Jay	RL	Red-legged Partridge	WA	Water Rail
CE	Corncrake	K.	Kestrel	NK	Red-necked Phalarope	W.	Wheatear
CI	Crested Tit	KF	Kingfisher	LR	Redpoll (Lesser)	WM	Whimbrel
CR	Crossbill (Common)	KI	Kittiwake	RK	Redshank	WC	Whinchat
CK	Cuckoo	KN	Knot	RT	Redstart	WG	White-fronted Goose
CU	Curlew	LM	Lady Amherst's Pheasant	RH	Red-throated Diver	WH	Whitethroat
DW	Dartford Warbler	LA	Lapland Bunting	RE	Redwing	WS	Whooper Swan
DI	Dipper	L.	Lapwing	RB	Reed Bunting	WN	Wigeon
DO	Dotterel	TL	Leach's Petrel	RW	Reed Warbler	WT	Willow Tit
DN	Dunlin	LB	Lesser Black-backed Gull	RZ	Ring Ouzel	WW	Willow Warbler
D.	Duncock	LS	Lesser Spotted Woodpecker	RP	Ringed Plover	OD	Wood Sandpiper
EG	Egyptian Goose	LW	Lesser Whitethroat	RI	Ring-necked Parakeet	WO	Wood Warbler
E.	Eider	LI	Linnet	R.	Robin	WK	Woodcock
FP	Feral Pigeon	ET	Little Egret	DV	Rock Dove (not feral)	WL	Woodlark
ZL	Feral/hybrid goose	LG	Little Grebe	RC	Rock Pipit	WP	Woodpigeon
ZF	Feral/hybrid mallard type	LU	Little Gull	RO	Rook	WR	Wren
FF	Fieldfare	LO	Little Owl	RS	Roseate Tern	WY	Wryneck
FC	Firecrest	LP	Little Ringed Plover	RY	Ruddy Duck	YW	Yellow Wagtail
F.	Fulmar	AF	Little Tern	RU	Ruff	Y.	Yellowhammer

If you are not submitting your data electronically using BBS-Online, please return your Field Recording Sheets to your Regional Organiser with your other BBS forms. If you would like to submit your results on BBS-Online, please inform your RO, then visit www.bto.org/bbs.

APPENDIX 2

ECN Protocols for Standard Measurements at Terrestrial Sites

BI (BB/BC/BM) Protocols

Note 3 BTO bird activity map symbols

(Sheet reproduced from BTO instructions for CBC recorders)

This standard list of conventions is designed for clear and unambiguous recording. Symbols can be combined where necessary. Additional activities of territorial significance, such as display or mating, should be noted using an appropriate clear abbreviation.

CH, CH ♂ [↗] CH ♀ [↘]	Chaffinch sight records, with age, sex or number of birds if appropriate.
3Chjuve, CH2♀ [↗] 1 ♀	Use CH ♀ [↗] to indicate one pair of Chaffinches, so that: 2CH♀ [↗] means two pairs together.
R fam	Juvenile Robins with parent(s) in attendance
<u>R</u>	A calling Robin
<u><u>R</u></u>	A Robin repeatedly giving alarm calls or other vocalisations (not song) thought to have strong territorial significance
(R)	A Robin in song
	An aggressive encounter between two Robins
*R	An occupied nest of Robins. Do not mark unoccupied nests, which are not of territorial significance by themselves
 BT	Blue tits nesting in a specially provided site. Please remember to use this special symbol for a nest in a nestbox.
*PW on	Pied Wagtail nest with adult sitting
PW mat	Pied Wagtail carrying nest material
PW food	Pied Wagtail carrying food

Movements of birds can be indicated by an arrow using the following conventions:

———— <u>GR</u> ———→	A calling Greenfinch flying over (seen only in flight)
(D) ———→	A singing Dunnock, perched then flying away (not seen to land)
————→ B.♂ [↗]	A male blackbird flying in and landing (first seen in flight)
WR ———→ WR	A Wren moving between two perches. The solid line indicates that it was definitely the same bird .

The following conventions indicate which registrations relate to different, and which to the same individual birds. Their proper use will be essential for the accurate assessment of clusters.

(WR) - - - - - (WR)	Two Wrens in song at the same time, i.e. definitely different birds. The dotted line indicates a simultaneous registration (or contemporary contact) and is of very great value in separating territories.
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- * *
- LI LI Two Linnet nests occupied simultaneously, and thus belonging to different pairs. This is another example of the value of dotted lines. Only adjacent nests need to be marked in this way.
- (CK) ————— (CK) The solid line indicates that the registrations definitely refer to the same bird.
- (SD) — ? — (SD) This question-marked solid line indicates that the registrations relate to probably the same bird. This convention is of particular use when your census route brings you back past an area already covered - it is possible to mark new positions of (probably the same) birds recorded before, without risk of double-recording. If you record birds without using the question-marked solid line, over-estimation of territories will result.
- (WR)
- WR mat No line joining the registrations - it will be assumed that the birds are probably different, but depending on the pattern of other registrations they may be treated as if only one bird was involved. (You may if you wish use a question-marked dotted line, indicating that the registrations were almost certainly of different birds.)
- C*
- C* Where adjacent nests are marked without a line, it will often be assumed that they were in first and second broods, or a replacement nest following an earlier failure.