



**ECOLOGY**SOLUTIONS

Part of the ES Group

ENVISION AESC  
UK BATTERY PLANT,  
SUNDERLAND

**Breeding Birds  
Survey Report**

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## **APPENDICES**

APPENDIX 1	Survey Plans from WYG (2015)
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## **1. INTRODUCTION**

- 1.1. Ecology Solutions was commissioned by Envision AESC to carry out updated breeding bird surveys of the site proposed for the UK Battery Plant at the International Advanced Manufacturing Park (IAMP), Sunderland. The site forms Phase 2 of IAMP ONE, the southern section of the wider scheme.
- 1.2. Survey work has previously been undertaken at the site as part of the wider study of the baseline information for the IAMP scheme. The current survey focuses on the UK Battery Plant site and the immediate environs, to establish whether any significant differences have arisen in the time since the earlier work was completed.

## 2. LEGISLATION AND ECOLOGY

### 2.1. Legislation

2.1.1. All birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981 (as amended). It is an offence to:

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

2.1.2. For certain bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981, it is an offence to intentionally or recklessly disturb any wild bird listed on the Schedule while it is nesting, or is at (or near) a nest with eggs or young, or disturb the dependent young of such a bird.

### 2.2. Ecology

2.2.1. There are approximately 260 bird species in Britain. Many of them are considered to be in decline due to a variety of factors including habitat loss and disturbance.

2.2.2. As a consequence of the decline in bird species, the Red and Amber Lists<sup>1</sup> have been devised by a group of organisations including the Royal Society for the Protection of Birds (RSPB) and British Trust for Ornithology (BTO). These lists give an indication of the status of the UK breeding bird population, and the species that are on this list have suffered declines in their breeding populations.

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<sup>1</sup> Red List species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered. Amber List species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare species (fewer than 300 breeding pairs or 900 individuals), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe.

### **3. SURVEY METHODOLOGY**

- 3.1. The breeding bird survey was carried out using a modified version of the Common Bird Census (CBC) technique. The CBC involves walking transect routes through the area being studied and recording and plotting all bird species observed or heard and their behaviour.
- 3.2. The transect route is chosen so that the entire site is covered and all features likely to support breeding birds are surveyed.
- 3.3. The surveys are carried out in the earlier mornings from shortly after sunrise and for this site lasted two to three hours. Three visits were carried out, one in each of April, May and June.

## 4. SURVEY RESULTS

### 4.1. Previous Survey Work

- 4.1.1. Breeding birds surveys were completed by WYG in 2014, encompassing the wider IAMP site and including the area for the proposed development (see Appendix 1). The following paragraphs summarise the results obtained. While not all of the species recorded were noted within the current site, the work completed nevertheless gives a good understanding of previous patterns of use.
- 4.1.2. A total of 82 bird species were recorded during the breeding bird surveys, and of these 62 species were considered to be breeding within the study area. Five Wildlife & Countryside Act 1981 (as amended) Schedule 1 species were recorded during the breeding bird surveys, namely Barn Owl *Tyto alba*, Fieldfare *Turdus pilaris*, Hen Harrier *Circus cyaneus*, Peregrine *Falco peregrinus* and Kingfisher *Alcedo atthis*. Of these species, only Barn Owl was strongly suspected of breeding within the study area during 2014.
- 4.1.3. The presence of breeding Barn Owls was confirmed incidentally at Elliscope Farm in July 2015. Fieldfare and Hen Harrier were considered to be passage birds passing through the study area on their way to their breeding sites. The Peregrine was only recorded flying over the study area hunting. The Kingfisher was recorded along the watercourse within the study area which provides suitable nesting habitat, although no evidence of breeding was recorded.
- 4.1.4. Twenty-nine notable bird species (Red or Amber list Birds of Conservation Concern – BoCC) were recorded breeding within the study area. Of these, Grey Partridge *Perdix perdix*, Lapwing *Vanellus vanellus*, Linnet *Linaria cannabina*, Meadow Pipit *Anthus pratensis*, Reed Bunting *Emberiza schoenoides*, Skylark *Alauda arvensis*, Tree Sparrow *Passer montanus*, Yellow Wagtail *Motacilla nava*, and Yellowhammer *Emberiza citrinella* were recorded in good numbers, utilising the hedgerows and field margins found throughout the study area for breeding and foraging, but may also be utilising wet field corner habitats.
- 4.1.5. Other species such as Bullfinch *Pyrrhula pyrrhula*, Dunnock *Prunella modularis*, Grasshopper Warbler *Locustella naevia*, Snipe *Gallinago gallinago*, Starling *Sturnus vulgaris*, Whitethroat *Sylvia communis*, Willow Tit *Poecile montanus* and Willow Warbler *Phylloscopus trochilus* were also utilising these habitats for breeding and foraging.
- 4.1.6. A further 33 common and widespread Green list species were recorded breeding from within the study area. The most frequently occurring common and widespread bird species recorded as breeding within the study area were Blackbird *Turdus merula*, Blue Tit *Cyanistes caeruleus*, Carrion Crow *Corvus corone*, Chaffinch *Fringilla coelebs*, Chiffchaff *Phylloscopus collybita*, Goldfinch *Carduelis carduelis*, Magpie *Pica pica*, Pheasant *Phasianus colchicus*, Robin *Erithacus rubecula*, Wood Pigeon *Columba palumbus* and Wren *Troglodytes troglodytes*.
- 4.1.7. Further work was completed by Tetra Tech (formerly WYG) in 2020, with breeding bird surveys undertaken monthly between March 2020 and July 2020 (inclusive) within the ELMA One area, which is adjacent to the

current site. This provides a more recent picture of bird activity from the immediate area around the site and, while the survey was focused on the ELMA One area, as the plans at Appendix 2 show, bird activity within the current site was also recorded.

4.1.8. Of the 56 species recorded during the breeding bird surveys, notable breeding species comprised 12 BoCC Red List and 5 BoCC Amber List species. Fourteen species listed as Species of Principal Importance (SPI) under the Natural Environment & Rural Communities (NERC) Act were recorded breeding during the surveys.

4.1.9. During the surveys, 22 BoCC Green Listed species were recorded breeding on or directly adjacent to the study area. Examples of recorded species included Goldfinch, Blue Tit, Robin, Wren, Swallow *Hirundo rustica* and Whitethroat. Seventeen non-breeding species were recorded on or directly adjacent to the study area, of which 12 were notable species (i.e. Wildlife & Countryside Act Schedule 1, SPI, BoCC Red or BoCC Amber listed species). Examples of notable species recorded include Curlew *Numenius arquata*, Herring Gull *Larus argentatus*, Lesser Black-backed Gull *Larus fuscus*, Whinchat *Saxicola rubetra* and House Martin *Delichon urbicum*.

## 4.2. 2021 Survey Results

4.2.1. Surveys were conducted on three visits in April, May and June. The prevalent weather conditions and the timings of these surveys are shown in Table 4.1.

Date	Time	Cloud Cover	Precipitation	Temperature (°C)	Wind (Beaufort scale)
23.04.21	06:00 – 08:30	6/8	None	8	1
12.05.21	05:30 – 08:00	6/8	None	8	1
22.06.21	05:00 – 08:00	4/8	None	8	1

**Table 4.1.** Breeding bird survey conditions and timings.

4.2.2. The results of the surveys are illustrated on Plans ECO1 to ECO3, and summarised in Table 4.2 below.

4.2.3. The breeding bird surveys recorded seven BoCC Red List species within the site (Grey Partridge, Herring Gull, Lapwing, Linnet, Skylark, Starling and Yellowhammer) and four BoCC Amber List species (Dunnock, Kestrel, Meadow Pipit and Reed Bunting).

4.2.4. None of these species are listed under Schedule 1 of the Wildlife and Countryside Act. Several other Green List species were also recorded, in line with earlier findings.

4.2.5. Overall, the breeding bird assemblage within the site is considered to be of local value.



Species	BTO Code	BoCC Status	Breeding Status
Dunnock	D.	Amber	Likely
Grey Partridge	P.	Red	Likely
Herring Gull	HG	Red	No
Kestrel	K.	Amber	Possible
Lapwing	L.	Red	Yes
Linnet	LI	Red	Possible
Meadow Pipit	MP	Amber	Yes
Reed Bunting	RB	Amber	Likely
Skylark	S.	Red	Yes
Starling	SG	Red	Possible
Yellowhammer	Y.	Red	Likely

**Table 4.2.** Breeding bird survey results 2021.

4.2.6. The Wildlife & Countryside Act Schedule 1 species Barn Owl was recorded using one of the barns at West Moor Farm during the survey work. This is considered in detail in the separate report by DWS Ecology, which focuses on the farm and its use by Barn Owls and bats.

#### 4.3. Discussion

4.3.1. The earlier survey work of the wider study area encompassing the current site completed by others found that there is a good assemblage of breeding birds within the IAMP site, including several notable species.

4.3.2. The 2021 surveys have shown that the assemblage present within the current site is broadly in line with the species recorded on site during earlier work, with noted Red and Amber-listed species present.

4.3.3. The assemblage is therefore not considered to have increased in diversity or importance since the earlier work, and can be concluded to remain of local value.

## 5. SUMMARY AND CONCLUSIONS

- 5.1. Ecology Solutions was commissioned by Envision AESC to carry out updated breeding bird surveys of the site proposed for the UK Battery Plant at the International Advanced Manufacturing Park (IAMP), Sunderland. The site forms Phase 2 of IAMP ONE, the southern section of the wider scheme.
- 5.2. Survey work has previously been undertaken at the site as part of the wider study of the baseline information for the IAMP scheme. The current survey focuses on the UK Battery Plant site and the immediate environs, to establish whether any significant differences have arisen in the time since the earlier work was completed.
- 5.3. The breeding bird surveys recorded seven Bird of Conservation Concern (BoCC) Red List species within the site (Grey Partridge, Herring Gull, Lapwing, Linnet, Skylark, Starling and Yellowhammer) and four BoCC Amber List species (Dunnock, Kestrel, Meadow Pipit and Reed Bunting). None of these species are listed under Schedule 1 of the Wildlife and Countryside Act, though Barn Owl was recorded using one of the barns at West Moor Farm. Overall, the breeding bird assemblage within the site is considered to be of local value.
- 5.4. The earlier survey work of the wider study area encompassing the current site completed by others found that there is a good assemblage of breeding birds within the IAMP site, including several notable species. The 2021 surveys have shown that the assemblage present within the current site is broadly in line with the species recorded on site during earlier work, with noted Red and Amber-listed species present. The assemblage is therefore not considered to have increased in diversity or importance since the earlier work, and can be concluded to remain of local value.

## PLANS

## **PLAN ECO1**

Bird Survey Results 23.04.21



















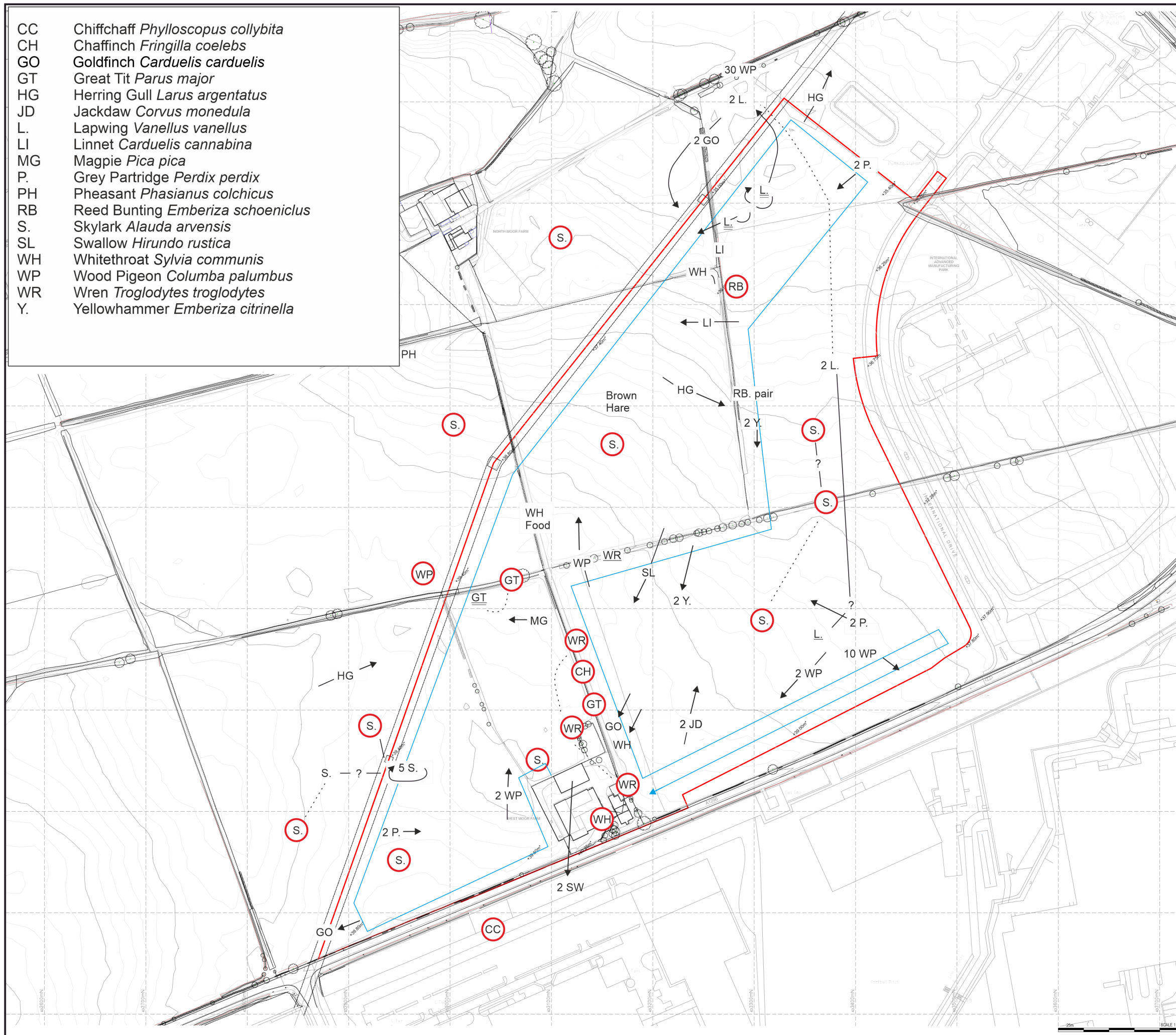
## **PLAN ECO2**

Bird Survey Results 12.05.21

CC	Chiffchaff <i>Phylloscopus collybita</i>
CH	Chaffinch <i>Fringilla coelebs</i>
GO	Goldfinch <i>Carduelis carduelis</i>
GT	Great Tit <i>Parus major</i>
HG	Herring Gull <i>Larus argentatus</i>
JD	Jackdaw <i>Corvus monedula</i>
L.	Lapwing <i>Vanellus vanellus</i>
LI	Linnet <i>Carduelis cannabina</i>
MG	Magpie <i>Pica pica</i>
P.	Grey Partridge <i>Perdix perdix</i>
PH	Pheasant <i>Phasianus colchicus</i>
RB	Reed Bunting <i>Emberiza schoeniclus</i>
S.	Skylark <i>Alauda arvensis</i>
SL	Swallow <i>Hirundo rustica</i>
WH	Whitethroat <i>Sylvia communis</i>
WP	Wood Pigeon <i>Columba palumbus</i>
WR	Wren <i>Troglodytes troglodytes</i>
Y.	Yellowhammer <i>Emberiza citrinella</i>

**KEY:**

-  SITE BOUNDARY
-  TRANSECT ROUTE
-  BIRD SPECIES
-  BIRD CALLING
-  BIRD SINGING
-  NUMBER OF BIRDS
-  APPROXIMATE NUMBER OF BIRDS
-  BIRD FLYING OVER
-  BIRD PERCHED, THEN FLYING AWAY
-  BIRD FLYING, THEN LANDING
-  PAIR OF BIRDS
-  FEMALE BIRD SPECIES
-  BIRD NEST
-  SIMULTANEOUS REGISTRATION
-  REPEATED BIRD CALLS
-  REGISTRATIONS LIKELY FROM THE SAME BIRD





Cokenach Estate  
Barkway | Royston  
Hertfordshire | SG8 8DL

+44(0)1763 848084  
east@ecologysolutions.co.uk  
ecologysolutions.co.uk

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<p>PLAN ECO2: BIRD SURVEY RESULTS 12.05.21</p>	<p>Rev: A July 2021</p>
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












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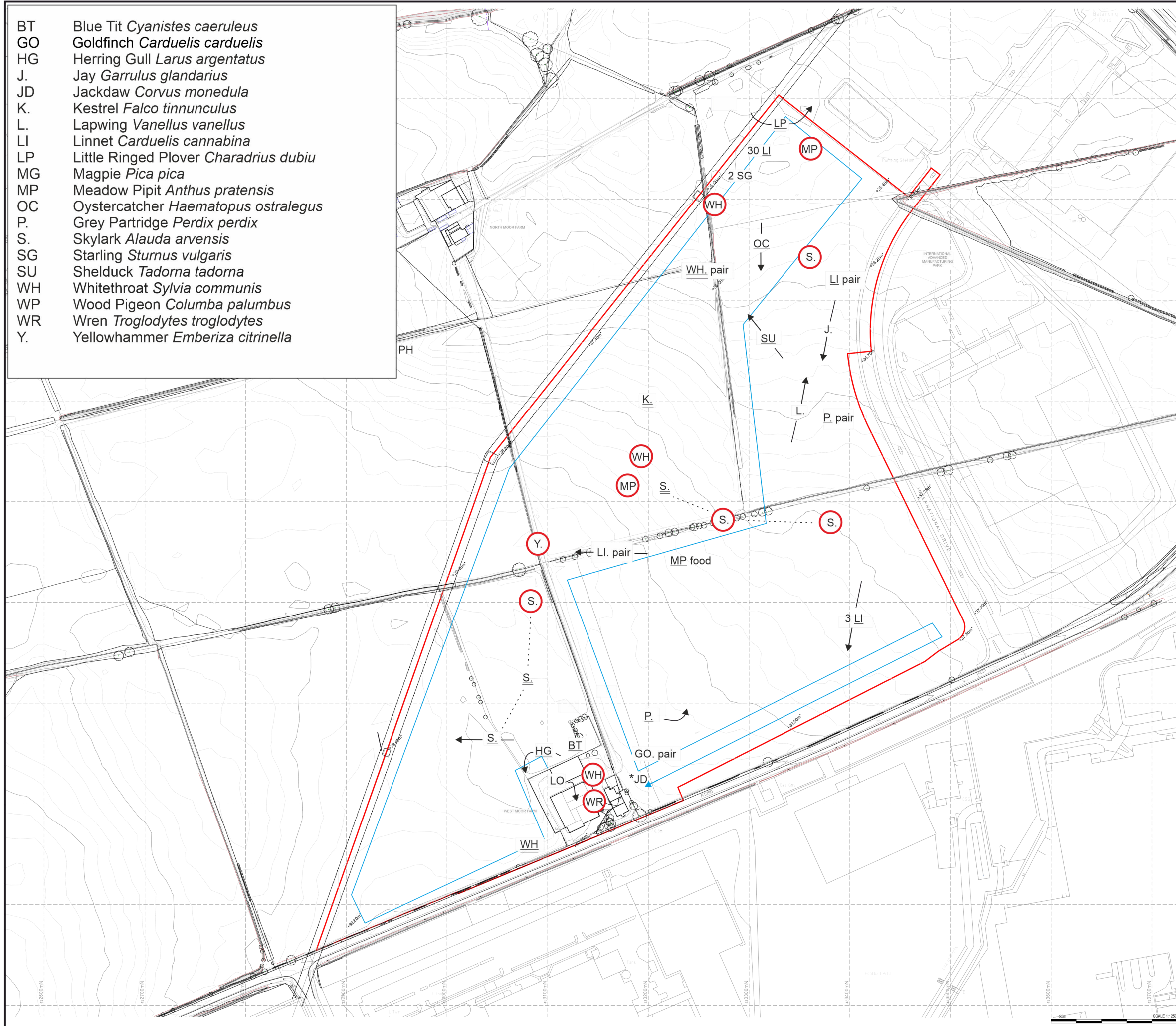
Bird Survey Results 22.06.21



- BT Blue Tit *Cyanistes caeruleus*
- GO Goldfinch *Carduelis carduelis*
- HG Herring Gull *Larus argentatus*
- J. Jay *Garrulus glandarius*
- JD Jackdaw *Corvus monedula*
- K. Kestrel *Falco tinnunculus*
- L. Lapwing *Vanellus vanellus*
- LI Linnet *Carduelis cannabina*
- LP Little Ringed Plover *Charadrius dubiu*
- MG Magpie *Pica pica*
- MP Meadow Pipit *Anthus pratensis*
- OC Oystercatcher *Haematopus ostralegus*
- P. Grey Partridge *Perdix perdix*
- S. Skylark *Alauda arvensis*
- SG Starling *Sturnus vulgaris*
- SU Shelduck *Tadorna tadorna*
- WH Whitethroat *Sylvia communis*
- WP Wood Pigeon *Columba palumbus*
- WR Wren *Troglodytes troglodytes*
- Y. Yellowhammer *Emberiza citrinella*

**KEY:**

-  SITE BOUNDARY
-  TRANSECT ROUTE
-  BIRD SPECIES
-  BIRD CALLING
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-  FEMALE BIRD SPECIES
-  BIRD NEST
-  SIMULTANEOUS REGISTRATION
-  REPEATED BIRD CALLING



Cokenach Estate  
Barkway | Royston  
Hertfordshire | SG8 8DL  
  
+44(0)1763 848084  
east@ecologysolutions.co.uk  
ecologysolutions.co.uk

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PLANT, SUNDERLAND**

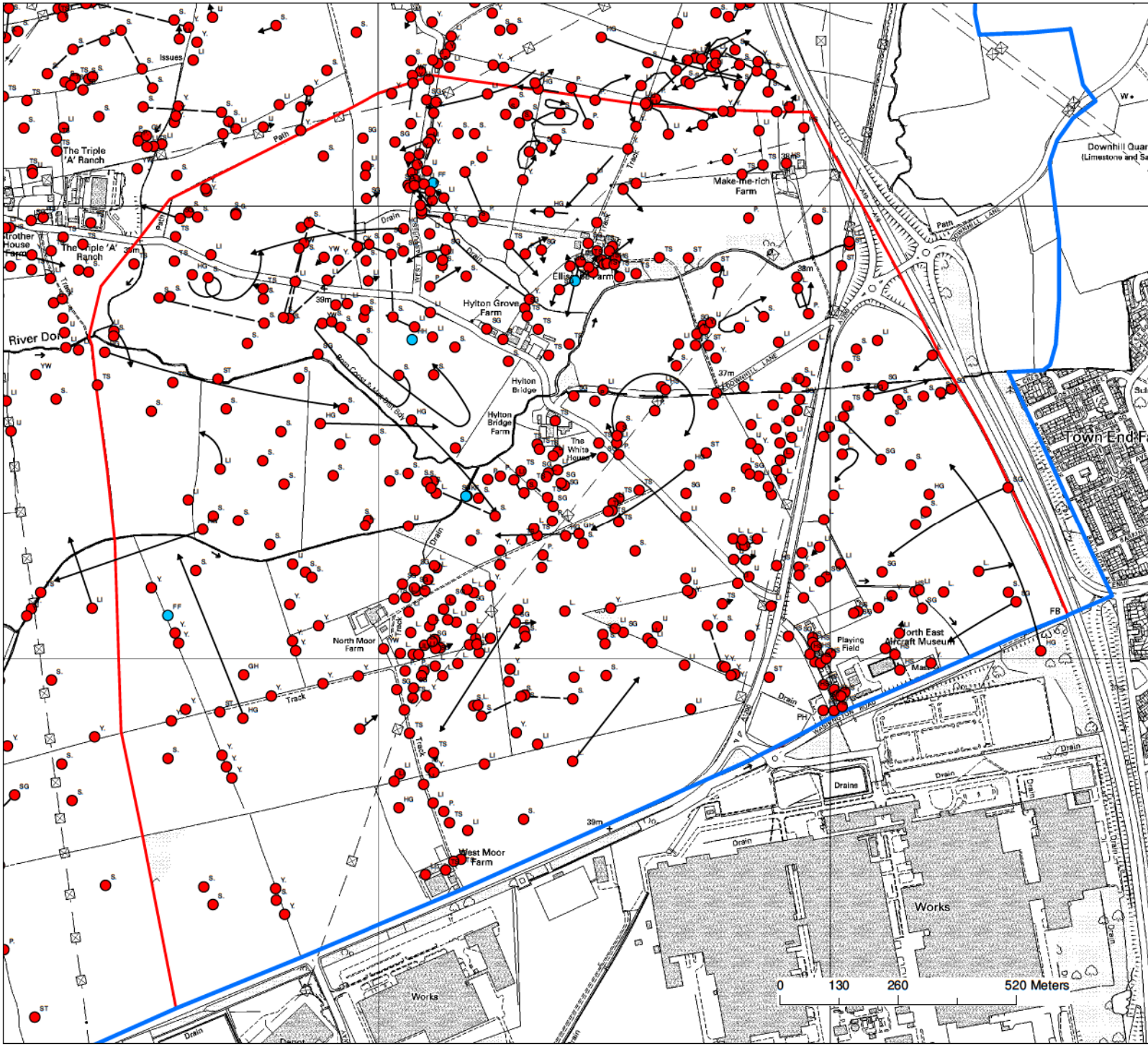
**PLAN ECO3:  
BIRD SURVEY RESULTS  
22.06.21**

Rev: A  
July 2021

## **APPENDICES**

## **APPENDIX 1**

Survey Plans from WYG (2015)



### Legend

#### Breeding Birds Status

- Schedule 1 Species
- BoCC Red Status Species
- $\rightarrow$  Flightlines
- $\rule{1cm}{0.4pt}$  Registration Line (solid)
- $\rule{1cm}{0.4pt}$  Registration lines (broken)



Species	BTO Code
Cuckoo	CK
Fieldfare	FF
Grasshopper Warbler	GH
Grey Partridge	P.
Hen Harrier	HH
Herring Gull	HG
House Sparrow	HS
Kingfisher	KF
Lapwing	L.
Linnet	LI
Peregrine	PE
Skylark	S.
Song Thrush	ST
Starling	SG
Tree Pipit	TP
Tree Sparrow	TS
Willow Tit	WT
Yellow Wagtail	YW
Yellowhammer	Y.

Executive Park Tel: 0116 2348000  
 Avalon Way Fax: 0116 2348002  
 Anstey email:  
 Leicester midlands.ecology@wyg.com  
 LE7 7GR



### WYG Environment

Project

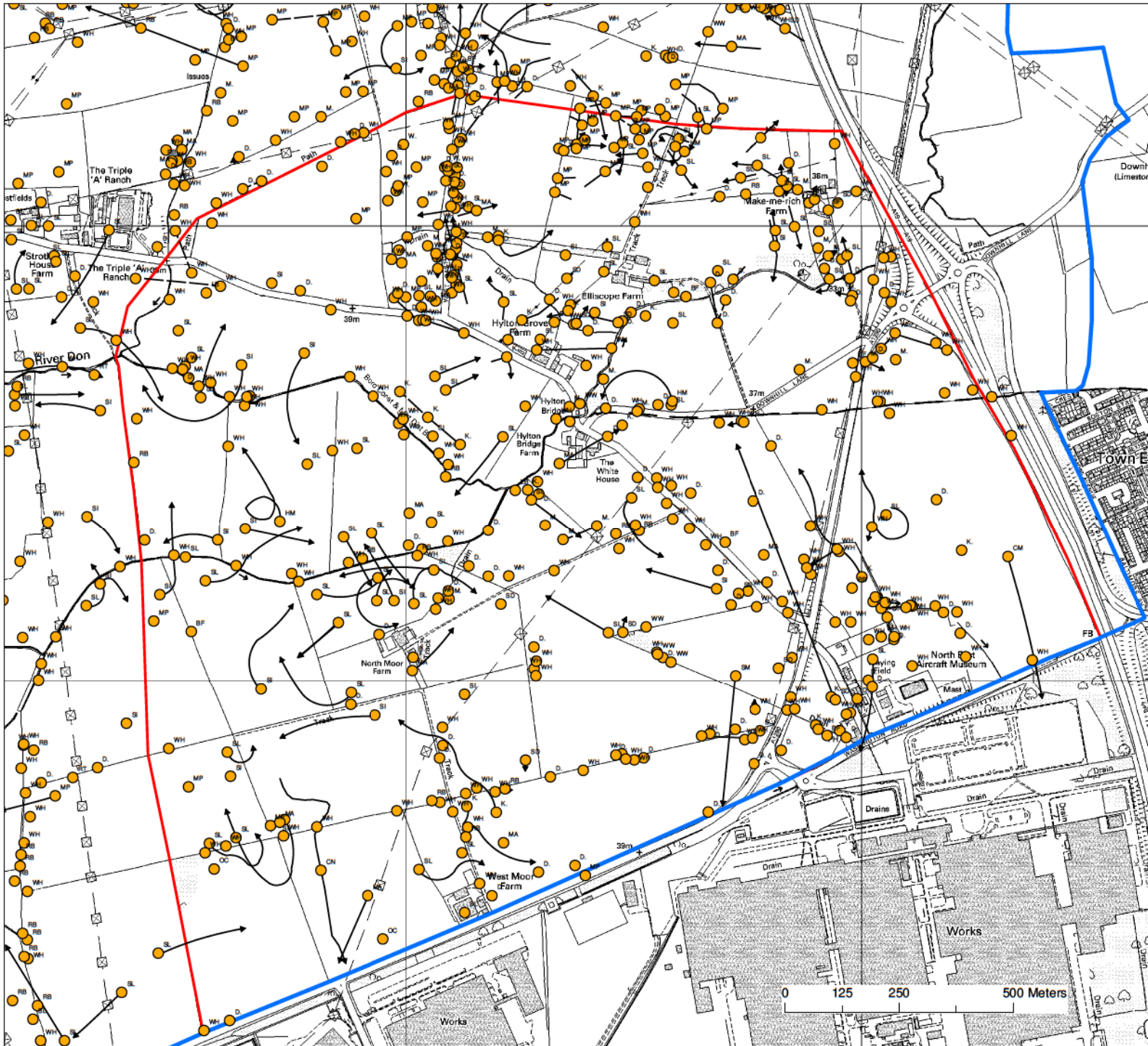
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Drawing Title:

**Figure 4.5.2d: Schedule 1 and BoCC Red Status**

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Project No: A086945	Office 45	Type 94	Drawing No. 86945-4.5.2d
			Revision 02

Base map provided by Sunderland City Council



## Legend

### Breeding Birds

#### Status

- BoCC Amber Status Species
- Flightlines
- Registration Line (solid)
- Registration lines (broken)



Species	BTO Code
Bullfinch	BF
Common Gull	CM
Dunnock	D.
Gadwall	GA
House Martin	HM
Kestrel	K.
Lesser Black-backed Gull	LB
Mallard	MA
Meadow Pipit	MP
Mistle Thrush	M.
Oystercatcher	OC
Redstart	RT
Reed Bunting	RB
Sand Martin	SM
Snipe	SN
Stock Dove	SD
Swallow	SL
Swift	SI
Winchat	WC
Whitethroat	WH
Willow Warbler	WW

Executive Park Tel: 0116 2348000  
 Avalon Way Fax: 0116 2348002  
 Anstey email: midlands.ecology@wyg.com  
 Leicester LE7 7GR



### WYG Environment

Project  
**Land North of Nissan**

Drawing Title:  
**Figure 4.5.3d: BoCC Amber Status Species**

Scale at A3: 1:8,000	Drawn by: Date: IS 14/10/15	Checked By: Date: MN 14/10/15	Approved By: Date: MJ 14/10/15
Project No: A086945	Office Type: 45 94	Drawing No. 86945-4.5.3d	Revision 02

Base map provided by Sunderland City Council



# Legend

## Breeding Birds Status



- BoCC Green Status Species
- Flightlines
- Registration Line (solid)
- - - Registration lines (broken)

Species	BTO Code	Species	BTO Code
Blackbird	B.	Lesser Whitethroat	LW
Blackcap	BC	Long-tailed Tit	LT
Blue Tit	BT	Magpie	MG
Buzzard	BZ	Moorhen	MH
Canada Goose	CG	Pheasant	PH
Carrion Crow	C.	Pied Wagtail	PW
Chaffinch	CH	Red-legged Partridge	RL
Chiffchaff	CC	Reed Warbler	RW
Collared Dove	CD	Robin	R.
Common Tern	CN	Rook	RO
Feral pigeon	FP	Sedge Warbler	SW
Garden Warbler	GW	Siskin	SK
Goldfinch	GO	Sparrowhawk	SH
Great Tit	GT	Wheatear	W.
Greenfinch	GR	Whinchat	WC
Grey Heron	H	Wood Pigeon	WP
Jackdaw	JD	Wren	WR
Jay	J.		

Executive Park Tel: 0116 2348000  
 Avalon Way Fax: 0116 2348002  
 Anstey email: midlands.ecology@wyg.com  
 Leicester LE7 7GR



### WYG Environment

Project

### Land North of Nissan

Drawing Title:

**Figure 4.5.4d: BoCC Green Status Species**

Scale at A3: 1:8,000	Drawn by: Date: IS 14/10/15	Checked By: Date: MN 14/10/15	Approved By: Date: MJ 14/10/15
Project No: A086945	Office 45	Type 94	Drawing No. 86945-4.5.4d
			Revision 02

Base map provided by Sunderland City Council

## **APPENDIX 2**

Survey Plans from WYG (2021)













# **ECOLOGY**SOLUTIONS

Part of the ES Group

Ecology Solutions Limited | Cokenach Estate | Barkway | Royston | Hertfordshire | SG8 8DL

01763 848084 | [east@ecologysolutions.co.uk](mailto:east@ecologysolutions.co.uk) | [www.ecologysolutions.co.uk](http://www.ecologysolutions.co.uk)