



## **Appendix 11.6**

### **EAST HILL, HEMPSTEAD, MEDWAY**

#### **BREEDING BIRD SURVEY REPORT**

<b>Date of report</b>	19 <sup>th</sup> March 2019
<b>Date of surveys</b>	March - November 2018
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<b>Corylus reference</b>	17032

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## 1.0 INTRODUCTION

1.1 Corylus Ecology has undertaken a suite of Breeding Bird Surveys at East Hill, Hempstead, Medway, hereinafter referred to as 'the Site'. This report details the methodology, results and evaluation of the Breeding Bird survey undertaken between April and July 2018.

### *Summary*

1.2 During the Extended Phase 1 Habitat Survey the Site was found to contain a mosaic of good quality habitat for breeding birds, including the ancient woodland edge, hedgerows, scrub and grassland which were considered to have the potential to support a diverse assemblage of passerine species. The ancient woodland boundaries, scrub and hedgerows are species-rich with a variety of shrub and tree species. The majority of the Site is formed of arable fields which at the time of survey were sown with wheat and which provide habitats for ground nesting farmland bird species. Due to the size of the Site (50ha) and the potential for the Site to support rare, scarce or declining bird species, it was recommended that a breeding bird survey should be undertaken. The purpose of the breeding bird surveys was to determine the impacts of the development on likely breeding populations of species of conservation concern and determine necessary mitigation measures.

### **Scope of Survey**

- 1.3 The scope of the survey encompassed:
- Undertake a breeding bird survey of the Site to determine numbers of breeding bird territories; and,
  - Evaluate the conservation importance of the Site for birds.

### **Survey Limitations**

1.4 The surveys were all carried out in good weather conditions and during the dates required by the species specific survey methodologies. During the surveys the red line survey area was changed to include the southern half of Field 1 as such this area was fully covered on latter three of the total six surveys. Due to the survey results found within this area in comparison with the wider side, it is deemed that the survey results for this section of the Site are representative of the breeding bird population.

## 2.0 METHODOLOGY

### 2.1 Desk Study

- 2.1.1 Records for birds were requested from Kent and Medway Biological Records Centre for a distance of 3km from the Site.

### 2.2 Survey Methodology

- 2.2.1 The survey followed guidelines as set out in the British Trust for Ornithology's (BTO) Breeding Bird Survey (BBS) and Common Bird Census (CBC) methodology. These survey methodologies are used as standard techniques to sample the assemblage of breeding birds within a site. The BBS methodology recommends that three surveys should be undertaken; the first is a scoping survey to identify areas of habitat within the site boundary and to identify potential transect routes. The CBC methodology recommends ten survey visits. Due to the size and habitats within the Site it was considered that five surveys would be sufficient to understand the impacts on the bird assemblage. The five surveys undertaken between April and July included the surveyor(s) walking transect routes around the Site area.

- 2.2.2 All bird locations were mapped using standard British Trust for Ornithology (BTO) species codes on an appropriate field map. Specific diagrammatic codes were also used to denote singing, calling, and movements between areas, flying, carrying food, nest building, aggressive encounters and other behaviour. For each survey, a field map was completed.

The six breeding bird surveys were undertaken on:

- 13<sup>th</sup> April 2018
- 26<sup>th</sup> April 2018
- 15<sup>th</sup> May 2018
- 1<sup>st</sup> June 2018
- 8<sup>th</sup> June 2018
- 22<sup>th</sup> June 2018

- 2.2.3 The surveys started within one hour of sunrise and continued for two hours. The Site was walked at a slow and methodical pace in appropriately fine weather in order to detect, locate and identify all individual birds. All field boundaries and suitable breeding habitats were walked.

- 2.2.4 A blank field map was used on each survey visit which was then used to create an individual species master map, following the completion of the surveys. This data analysis follows procedures detailed in Gilbert *et al.* (1998). The number of territories for each species was calculated from the species master map.

## 2.3 Evaluation Methodology

2.3.1 Birds recorded during the survey were placed in both a national and local context in order to identify species of conservation importance. The conservation importance of the breeding bird populations were determined using the criteria specified below.

- (a) the presence of breeding species of recognised international conservation importance i.e. species listed on Annex I of EC Directive 79/409/EEC on the Conservation of Wild Birds 1979;
- (b) the presence of breeding species of recognised national conservation importance i.e. species listed on Schedule 1 of the Wildlife and Countryside Act 1981;
- (c) the presence of Birds of Conservation Concern (BoCC4) Red List species (Eaton *et al* 2015);
- (d) the presence of species identified as Priority Species in the UK Biodiversity Action Plan (UK BAP)
- (e) the presence of species identified on the IUCN European Red List
- (f) the presence of species listed under the Natural Environment and Rural Communities Act 2006 (NERC Act) Section 41 Species of Principal Importance in England; and
- (g) Kent Local Biodiversity Action Plan.

2.3.2 The breeding bird assemblage of the Site was also evaluated against the standard JNCC guidelines for the selection of biological SSSIs (JNCC 1995).

2.3.3 Finally, an additional evaluation method has also been used. Species richness is a simple and effective measure of diversity that can be used to describe conservation value separately for breeding, passage and wintering bird communities. Fuller (1980) provided the following criteria for the evaluation of Sites for the breeding bird diversity where the number of species found breeding in an area can be given a value as shown below:

<i>National</i>	<i>Regional</i>	<i>County</i>	<i>Local</i>
85+	84-70	69-50	49-25

2.3.4 The criteria used for the designation of Local Wildlife Sites in Kent were used to assess the local importance of the Study Area for birds (Kent Wildlife Trust, 2015). The criteria are designed to be applied to areas of habitat that are discrete and homogenous (i.e. splitting habitats such as woodland and arable rather than considering the two habitats as one site) and are as follows:

*“A site should be selected as a Wildlife Site if it can be considered as a single, identifiable unit (as explained above) in terms of its bird fauna and where:*

- *It is occupied regularly by at least 2.5% of the county population of any one or more bird species, based on the most recent and authoritative data; or*

- *It is occupied regularly as a breeding site by species with a Kent population of 50 or fewer territories;  
or*
- *It holds ten or more Kent Red Data Book 2 (KRDB2) species in the breeding season; or*
- *It holds three or more Kent Red Data Book 3 (KRDB3) species at the appropriate time of year  
(normally this should not include a combination of breeding and wintering species);*
- *It holds one of the five largest colonies of colonial seabirds (with the exception of herring gull and  
black-headed gull), grey heron, little egret or sand martin; or*
- *It has been recorded as being regularly used in recent years by at least 50 breeding bird species.*

### 3.0 RESULTS

#### 3.1 Desk Study

- 3.1.1 Some 214 bird species have been identified within the 3km search area, including 117 species in the BTO Birds of Conservation Concern 4 Red or Amber List.
- 3.1.2 There are 53 species within the search area listed on Schedule 1 of the Wildlife and Countryside Act, The majority would not be found within the Site due to the habitats present (whooper swan *Cygnus Cygnus*, osprey *Pandion haliaetus*) and are not referred to any further. Other species such as hobby *Falco Subbuteo*, peregrine falcon *Falco peregrinus*, and barn owl *Tyto alba*, may be found within the Site or habitats adjacent to the Site.
- 3.1.3 Birds that have been identified within the 3km search area which are associated with on-Site habitats include; lesser spotted woodpecker *Dryobates minor*, dunnoek *Prunella modularis*, song thrush *Turdus philomelos*, spotted flycatcher *Muscicapa striata*, marsh tit *Poecile palustris*, starling *Sturnus vulgaris*, house sparrow *Passer domesticus*, tree sparrow *Passer montanus*, linnet *Linaria cannabina*, bullfinch *Pyrrhula pyrrhula*, little owl *Athene noctua*, tawny owl *Strix aluco*, green woodpecker *Picus viridis*, grey wagtail *Motacilla cinerea*, pied wagtail *Motacilla alba*, wren *Troglodytes troglodytes*, robin *Erithacus rubecula*, common redstart *Phoenicurus phoenicurus*, whitethroat *Sylvia communis*, garden warbler *Sylvia borin*, blackcap *Sylvia atricapilla*, chiffchaff *Phylloscopus collybita*, willow warbler *Phylloscopus trochilus*, goldcrest *Regulus regulus*, firecrest *Regulus ignicapilla*, coal tit *Periparus ater*, blue tit *Cyanistes caeruleus*, great tit *Parus major*, nuthatch *Sitta europaea*, tree creeper *Certhia familiaris* and turtle dove *Streptopelia turtur*.
- 3.1.4 It is not considered likely that wetland birds would be using habitats on-Site for breeding however, they may use them for roosting and foraging. Relevant records of Red or Amber listed wetland birds within a 3km radius of the Site include;
- brent goose *Branta bernicla*
  - greylag goose *Anser anser* mute swan *Cygnus olor*
  - white-fronted Goose *Anser albifrons*
  - marsh harrier *Circus aeruginosus*
  - oystercatcher *Haematopus ostralegus*
  - grey plover *Pluvialis squatarola*
  - lapwing *Vanellus vanellus*
  - snipe *Gallinago gallinago*
  - Mediterranean gull *Larus melanocephalus*
  - black-headed gull *Larus ridibundus*



- common gull *Larus canus*
- common turn *Sterna hirundo*.
- herring gull *Larus argentatus*
- woodcock *Scolopax rusticola*

## 3.2 Survey Results

- 3.2.1 A total of 35 bird species recorded over the course of the five surveys with 26 of these species recorded breeding (see Figure 1 and 2) with a further three species recorded only once but would be expected to breed on site. Species such as goldcrest can be overlooked as they are very small and in noisy environments may not always be heard. The assemblage recorded is considered to be typical of the mosaic of habitats which the Site supports, including woodland, farmland, hedgerows and scrub.
- 3.2.2 Overall the Site was found to support an assemblage of species which are considered to be widespread throughout the UK and found in a range of habitats including urban, garden and marginal habitats, such as blackbird *Turdus merula*, blue tit *Cyanistes caeruleus*, robin *Erithacus rubecula*, great tit *Parus major*, chaffinch *Fringilla coelebs*, wren *Troglodytes troglodytes* and starling *Sturnus vulgaris*. These and similar species were found throughout the Site in a range of locations, and were widespread across all habitats.
- 3.2.3 The Site was also found to support a number of species which are scarcer, less widespread or have specific habitat requirements. The following paragraphs discuss these species in more detail.
- 3.2.4 The ancient woodland habitats adjacent to the south of the Site were found to support an assemblage of breeding species associated with mature mixed broadleaved woodland. Species in this regard found using the Site include;
- great spotted woodpecker *Dendrocopos major*
  - mistle thrush *Turdus viscivorus*
  - garden warbler *Sylvia borin*
  - chiffchaff *Phylloscopus collybita*
  - blackcap *Sylvia atricapilla*
  - whitethroat *Sylvia communis*
- 3.2.5 Species which favour farmland, unmanaged grassland and arable habitats were recorded breeding within the Site include;
- skylark *Alauda arvensis*

- corn bunting *Emberiza calandra*
- linnet *Carduelis cannabina*
- greenfinch *Chloris chloris*
- dunnock *Prunella modularis*
- stock dove *Columba oenas*
- goldfinch *Carduelis carduelis*

3.2.6 A single nightingale *Luscinia megarhynchos* was recorded during the invertebrate surveys in May. The species was identified calling within the dense scrub outside the Site and adjacent to the recycling centre to the south of Field 2. This species was not recorded during any of the breeding bird surveys and likely to have been moving through the Site.

#### *Conservation Status*

3.2.7 Of the 29 species recorded breeding or potentially breeding across the survey areas, nine species included in the Red or Amber List of Birds of Conservation Concern (BoCC4), have been confirmed breeding across the survey area including:

- Red List: mistle thrush, starling, song thrush, linnet, skylark, corn bunting and house sparrow. Dunnock and stock dove is included on the Amber list of BoCC 4.

3.2.8 The following are Species of Principal Importance listed on Section 41 of the NERC Act (2006) and are UK Biodiversity Action Plan (UKBAP) Priority Species: linnet, starling and song thrush, mistle thrush, skylark, house sparrow and corn bunting.

3.2.9 Six species listed in the Kent Red Data Book were identified on the Site: skylark, corn bunting, starling, song thrush, house sparrow and linnet, are KRDB 2. These species therefore meet conservation status criteria and are detailed in Table 1.

Table 1 – Breeding Species at Site meeting conservation status criteria.

Species	WCA 1981	BoCC4: Red List	BoCC4:Amber List	UK BAP	RBBP	NERC Act 2006 Section 41*	Kent Red Data Book
Dunnock			•	•		•	
Stock dove			•				
Song thrush		•				•	KRDB2
Skylark		•		•		•	KRDB2
Linnet		•		•		•	KRDB2
Corn Bunting		•		•		•	KRDB2
Mistle Thrush		•					
Starling		•		•		•	KRDB2
House sparrow		•		•		•	KRDB2

\*Listed in the Kent BAP

3.3.10 The Red List of Birds of Conservation Concern (BoCC4) are species whose breeding population has decreased or whose breeding range has contracted by 50% or more in the preceding 25 years or, those that have declined historically and not shown a substantial recent recovery. Several other species recorded breeding within the Site are 'Amber' listed on the BoCC4 list including dunnock and stock dove.

## 4.0 EVALUATION

4.1 The results of the breeding bird surveys in 2018 indicate that the breeding bird community present within the Site is considered to be of **Local Significance** based on the Fuller criteria, with up to 29 species recorded breeding or likely breeding within the Site or habitats immediately adjacent. The next threshold (County Level) for bird assemblage based on the Fuller criteria would be 50 or greater species breeding. The species present and considered to be breeding are typical of the habitats present within the Site, which is dominated by a mixture of mixed use arable farmland, ancient woodland, grassland, scrub and urban fringe.

### *Distribution of breeding species of conservation importance*

4.2 There were no species recorded on the Site which are listed on Schedule 1 WCA or Annex I or II species. Nine species (linnet, skylark, mistle thrush, corn bunting, starling, house sparrow, dunnock, stock dove and song thrush) identified using the Site are of conservation significance and are variously listed on the Kent Red Data Book, Species of Principal Importance (under Section 41 of the NERC Act), UK BAP Priority Species and are on the BoCC 4 Red List or Amber list.

4.3 All of these nine species of conservation importance were found to be breeding or likely breeding within the survey area. The majority of species are those which have suffered substantial recent population declines and/or a contraction in range nationally, though most remain relatively widespread through Kent and the British Isles.

### *Distribution of breeding species of conservation importance*

4.4 The distribution of all confirmed territories and other records of the species of conservation importance are indicated in Figures 1 and 2.

### *Species on BoCC4 Red List, NERC Section 41, UK BAP and IUCN Red List*

#### *Song thrush*

4.5 Three song thrush territories were identified across the survey area, all three were within the western edge of Field 3, one in the north, one in the centre and one in the south. Song thrush is still a relatively common and widespread species throughout the British Isles, despite undergoing a substantial population decline (13% decline in south-east England 1995 – 2012 according to the BTO) and thus being listed on the BoCC4 Red List and on KRDB2. Although primarily a species of woodland, woodpasture and parkland, song thrush is found in most habitats from urban to woodland, although avoiding open coastal or marsh habitats and favouring habitats with scrub and trees for nesting and sheltered grassland (such as hedgerow margins or at the base of trees) for foraging. As with other species in the *Turdidae* family, song thrush is a predominantly ground feeding species, favouring fruit and also taking invertebrates, worms and seeds as available.

*Dunnock*

- 4.6 Six Dunnock territories were identified across the survey area, all six were located within the vegetated boundaries of Field 2, two were located in the southern corner by the recycling plant, two were located on the eastern boundary and one was located at the western boundary. This species is included on BoCC4 Amber List but is not included on the KRDB. The species is considered to be declining in south-east England (Clements *et al* 2015). Dunnock tend to nest close to the ground in low vegetation, usually 0.5 – 3.5m above ground level, therefore it is considered that the habitats onsite are highly suitable for this species.

*Linnet*

- 4.7 Three territories of this species were recorded and across the survey area, all three were located within the vegetation, trees and scrub on the western edge of Field 2, to the east of Shawstead Road. This species breeds low down in dense scrub or thorny trees and bushes; early broods are often in evergreens and later nests in deciduous shrubs when cover is thick (Snow and Perrins 1998). Linnet is included on BoCC4 Red List and on KRDB2 and is considered to have undergone a substantial regional and national population decline (43% decline in south-east England 1995 – 2012 according to BTO). Linnet is a farmland species favouring mixed use fields with hedgerows, low trees and scrub and feed almost on exclusively on seeds and fruits, including oil seed rape and arable weed species. They are widely distributed in Kent, although at a lower density than elsewhere in the UK. The species has suffered a national decline since the 1960s, likely due to modern agricultural practices and intensive farming during this period (Snow and Perrins, 1998).

*Skylark*

- 4.8 Eleven territories of this species was recorded across Site, these were within Fields 1 and 2 only and all within the arable wheat crop within the fields centre. Skylark is included on BoCC4 Red List and on KRDB2 and is considered to be suffering a continuing decline (29% decline in south-east England 1995 – 2012 according to BTO). Skylark are ground nesting birds and tend to nest in pockets of open habitat or among short vegetation such as grass or growing crops in tall grassland or arable fields (Snow and Perrins 1998).

*Starling*

- 4.9 Two territories of this species was recorded within the Site, this was within the scrub and tree edge of Field 2 to the east. Although birds like starling are an adaptable species and can be found in a wide variety of habitats but favour mixed-use arable and woodland habitats along with brownfield sites. There are a number of trees with suitable nesting places and on the urban fringe are many buildings offering suitable nesting resources. Several areas are attractive to feeding flocks and for roosting birds. Starling

is included on BoCC4 Red List and on KRDB2 and is considered to be suffering a steep decline nationally in both numbers and breeding territories (64% decline in south-east England 1995 – 2012 according to BTO).

*Mistle thrush*

- 4.10 A single territory of this species was recorded within the Site, this was within the 'Whites Wood' ancient woodland block on the western edge of Field 1. Mistle thrush is listed on the BoCC4 Red List but is not a KRDB species for recent declines in UK populations, but is not a KRDB species or on the NERC/UK BAP lists. Mistle thrush has similar habitat requirements as song thrush, favouring woodland, scrub or gardens with numerous fruiting trees and open ground for foraging. Although still a widespread and common species in parks and gardens, mistle thrush has declined significantly since the 1970s, with up to a 47% decline in numbers since 1967 (BTO).

*Corn bunting*

- 4.11 Two territory of this species was recorded within the Site, one in the north-west corner of the Field 2 and one in the south-west corner of Field 2. Corn bunting is listed on the BoCC4 Red List and on KRDB2 and NERC/UK BAP lists for recent declines in UK populations. Corn Buntings declined very steeply between the mid-1970s and mid-1980s, with up to an 86% decline in numbers since 1967 (BTO). Subsequently the decline has continued, but at a much-reduced rate. Breeding performance per nesting attempt has increased considerably over this period (Crick 1997). Corn bunting prefer open farmland and in winter they may be found in stubble, root crops, fields and cattle yards. They are predominately seed eating and will also take insects. They share similar nesting requirements to skylark, favouring open ground in arable or tall grassland fields.

*House sparrow*

- 4.12 Two territories of this species was recorded within the Site, this was within the houses adjacent to Field 2 to the north and the southern boundary of Field 2, adjacent to Shawstead Road. House sparrow is listed on the BoCC4 Red List and on KRDB2 and NERC/UK BAP lists for recent declines in UK populations. The overall national decline since the 1970s masks much heterogeneity by region and habitat, and population processes may be relatively fine-grained: overall, populations in rural areas had declined by 47% by 2000, and those in urban and suburban areas by about 60% (CBC data: Robinson *et al.* 2005b). Up to an 71% decline in numbers since 1977 (BTO). House sparrow are a seed eating species which can be found in dense urban environments, farmland and open countryside, and are now closely associated with manmade habitats.

*Summary*

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- 4.13 Based on the Criteria set out in the Kent Criteria for Local Wildlife Sites, the Site does not fulfil the requirements based on Kent RDB species. The Site supports a total six KRBD2 species at the appropriate time of year. The threshold of KRBD3 is three species and for KRBD2 it is 10 species. No KRDB1 species were identified.
- 4.14 The evaluation of the Site under the above criteria should be considered when assessed in a wider context. Of the 14 KRDB species which could be present due to the habitats found within the Site, only six were recorded: song thrush, linnet, skylark, mistle thrush, starling and house sparrow. Species such as tree sparrow, spotted flycatcher, turtle dove, common redstart, nightingale, grey partridge, could be expected to be found within the Site or the adjacent habitats, but were found to be absent during the five visits.
- 4.15 The numbers of breeding territories recorded is likely to be an underestimate for some species either because they are quiet and elusive (such as bullfinch) or because the habitats within the Site make it difficult to accurately plot individuals, for example the dense scrub habitats where access is limited. It was noted that on individual survey occasions there was often an increase in the numbers of birds from a particular species and it is likely that these were migrating birds on passage such as whitethroat.
- 4.16 Summer migrant populations were lower in 2018 than normal across much of the UK (BTO, 2018) possibly due to the significant cold spell (Beast from the East) which prevented many migrants from travelling as far north as the UK.
- 4.17 Based on the range of species of conservation importance recorded it is considered that the Site should be considered as being of **Local Importance** for its breeding birds.

## 5.0 CONCLUSIONS

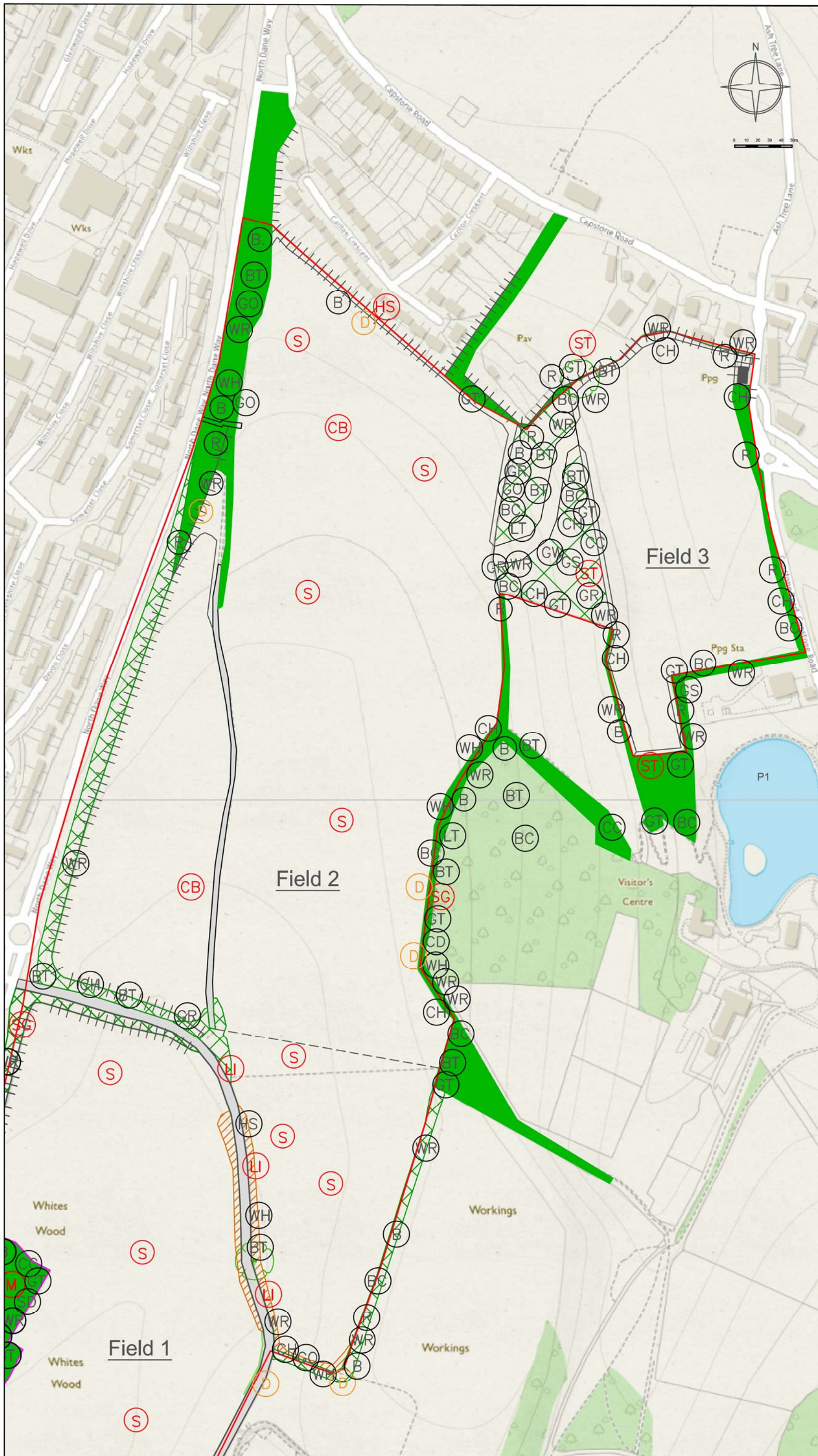
- 5.1 Breeding bird surveys were undertaken in 2018, a total of 29 species have been recorded breeding or possibly breeding within the Site. A total of nine species of conservation importance were found to be breeding or likely breeding within the survey area. The majority of species are those which have suffered substantial recent population declines and/or a contraction in range nationally, though most remain relatively common through Kent and the wider British Isles.
- 5.2 Based on the range of bird species of conservation importance recorded, it is considered that the Site should be considered as being of **Local Importance** for its breeding birds.



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**REFERENCES**

- Ashpole, J., Burfield, I., Ieronymidou, C., Pople, R., Wheatley, H. & Wright, L. 2015. *Rallus aquaticus* European Red List Status BirdLife International
- Bibby, C.J., Burgess, N.D., Hill, D.A., & Mustoe, S.H. 2000. *Bird Census Techniques: 2nd edition*. Academic Press, London.
- British Trust for Ornithology. (BTO). *Bird Track*. <http://www.bto.org.uk/birdtrack/index.htm>
- Clements R, Orchard M, McCanch N and Wood S 2015 *Kent Breeding Bird Atlas 2008 – 13* Kent Ornithological Society
- Eaton M.A, Aebischer N.J, Brown A.F, Hearn R, Lock, L., Musgrove A.J, Noble D.G, Stroud, D., Gregory R.D. (2015). *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man*. *British Birds* **108**, pp708–746.
- English Nature. 1999. *UK Biodiversity Group Tranche 3 Action Plans*. English Nature, Peterborough.
- English Nature. 1998. *UK Biodiversity Group: Tranche 2 Action Plans. Volume 1 – Vertebrates and Vascular Plants*. English Nature, Peterborough.
- Gilbert, G., Gibbons, D.W. & Evans, J. 1998. *Bird Monitoring Methods*. RSPB, Sandy.
- Holling M and the Rare Breeding Birds Panel (2014) *Rare breeding birds in the United Kingdom in 2012* *British Birds* **107**: 504-560
- Holling M and the Rare Breeding Birds Panel (2015) *Rare breeding birds in the United Kingdom in 2013* *British Birds* **108**: 373-422
- Musgrove, A, Aebischer, N., Eaton, M., Hearn, R., Newson, S., Noble, D, Parsons, M., Risely K. and Stroud, D. (2013). *Population Estimates of Birds in Britain and in the United Kingdom*. *British Birds* **106**: 64-100.
- Snow, D.W., & Perrins, wC.M. 1998. *The Birds of the Western Palearctic – Concise Edition*. Oxford University Press.



- Key**
- Site Area
  - Red List Species
  - Amber List Species
  - B Blackbird
  - BC Blackcap
  - BT Blue tit
  - CH Chaffinch
  - CC Chiffchaff
  - CD Collard Dove
  - CB Corn bunting
  - D Dunnock
  - GW Garden Warbler
  - GO Goldfinch
  - GS Great spotted woodpecker
  - GT Great tit
  - GR Greenfinch
  - HS House sparrow
  - L Linnet
  - LT Long-tailed tit
  - M Mistle thrush
  - R Robin
  - S Skylark
  - ST Song thrush
  - SG Starling
  - SD Stock dove
  - WH Whitethroat
  - WR Wren

revision	description	date	checked by

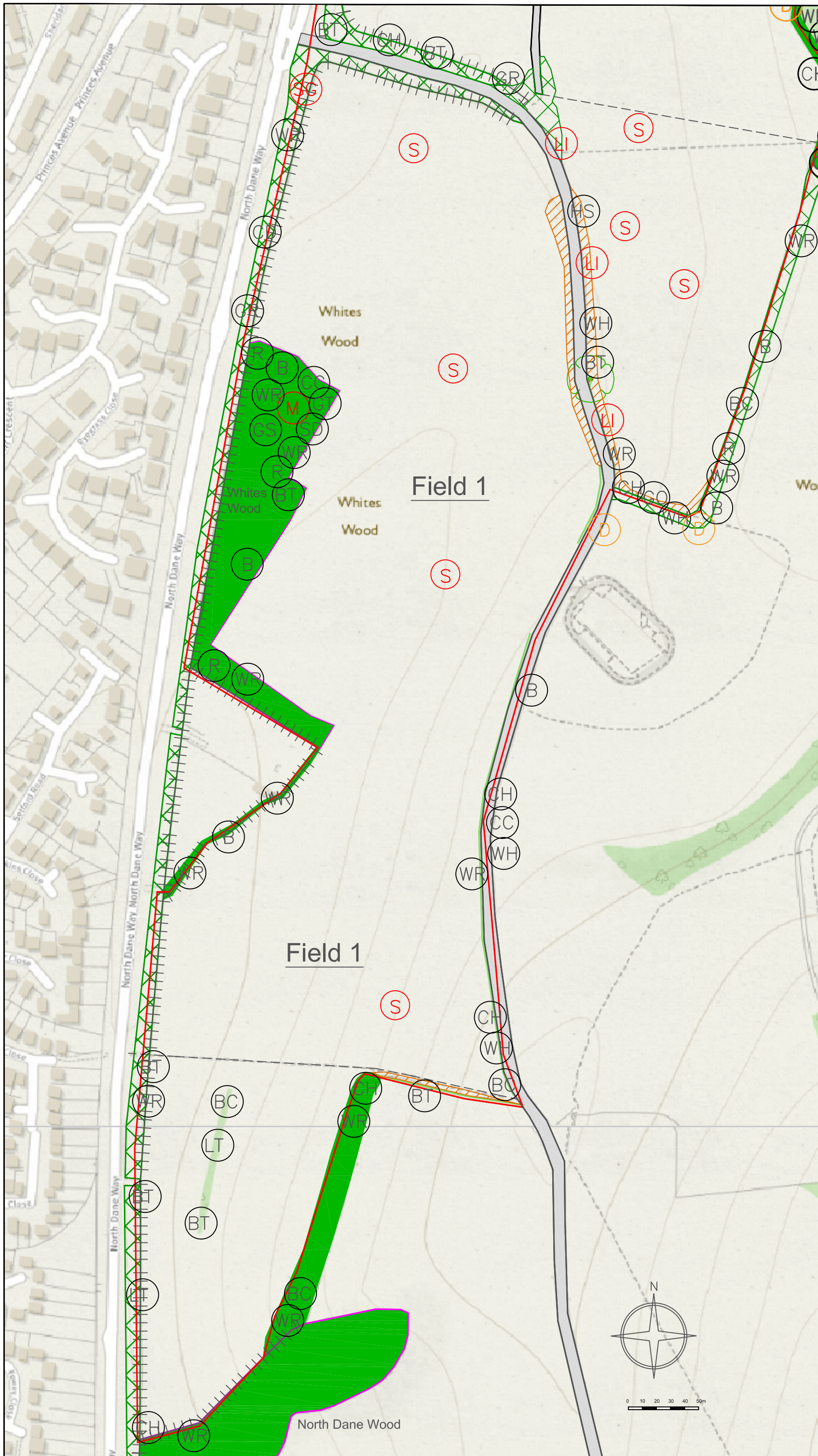
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**Project:** 17032 East Hill, Hempstead

**Title:** Breeding Bird Survey Results - Field 2 and 3

status	drawing no.	<b>Figure 2</b>		
scale	size	date	drawn	checked
NTS	A3	22.02.2019	AW	HL

CAD filename: Figure\_1.dwg



Key

[Red outline]	Site Area
[Red circle]	Red List Species
[Orange circle]	Amber List Species
[B]	Blackbird
[BC]	Blackcap
[BT]	Blue tit
[CH]	Chaffinch
[CC]	Chiffchaff
[CD]	Collard Dove
[CB]	Corn bunting
[D]	Dunnock
[GW]	Garden Warbler
[GO]	Goldfinch
[GS]	Great spotted woodpecker
[GT]	Great tit
[GR]	Greenfinch
[HS]	House sparrow
[LI]	Linnet
[LT]	Long-tailed tit
[M]	Mistle thrush
[R]	Robin
[S]	Skylark
[ST]	Song thrush
[SG]	Starling
[SD]	Stock dove
[WH]	Whitethroat
[WR]	Wren

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**CORYLUS**  
**ECOLOGY**

Project:  
 17032 East Hill, Hempstead

Title:  
 Breeding Bird Survey Results - Field 1

Status:      drawing no. **Figure 1**

scale	size	date	drawn	checked
NTS	A3	22.02.2019	AW	HL

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 Figure\_1.dwg

# 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.	Dunnock	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](http://www.bto.org/bbs).