



APPENDIX 11.5
EAST HILL, HEMPSTEAD, MEDWAY

Wintering Birds Report

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Appendix 1 - British Trust for Ornithology Species Codes

1.0 INTRODUCTION

- 1.1 Corylus Ecology has undertaken wintering bird surveys from January 2018 to March 2018 at East Hill, Hempstead, Medway, hereinafter referred to as 'the Site'.
- 1.2 The need for wintering bird surveys was identified following preliminary habitat surveys undertaken in May 2017 and the proximity of the Site to designated areas for wintering birds. Desk study information relating to designated areas, habitats and protected species was reviewed and is summarised below.

Designated Sites

- 1.3 The Site is located within 3.4km of the Medway Estuary and Marshes Special Protected Area (SPA), Ramsar site and Site of Special Scientific Interest (SSSI). The location of the Site in relation to the Medway Estuary and Marshes SPA, Ramsar and SSSI is shown on Figure 1.
- 1.4 The Medway Estuary & Marshes SPA supports, in summer nationally important breeding populations of avocet *Recurvirostra avosetta* and little tern *Sterna albifrons*, both Annex I species. It also supports a nationally important wintering population of avocet.
- 1.5 In terms of Annex II species, the SPA is an important for ringed plover *Charadrius hiaticula* when on passage. In terms of wintering species, the SPA is an important site for black-tailed godwit *Limosa limosa islandica*, dark-bellied brent goose *Branta bernicla bernicla*, dunlin *Calidris alpina alpina*, grey plover *Pluvialis squatarola*, pintail *Anas acuta*, redshank *Tringa tetanus*, ringed plover and shelduck *Tadorna tadorna*.
- 1.6 The area also qualifies under Article 4.2 of the Birds Directive by regularly supporting over 20,000 waterfowl, with an average peak count of 53,900 birds recorded in the five-winter period 1986/87 to 1990/91, and including an assemblage of internationally and nationally important wintering populations of migratory species. The wintering assemblage includes dark-bellied brent geese, shelduck, pintail, ringed plover, grey plover, knot *Calidris canutus*, dunlin, redshank, great crested grebe *Podiceps cristatus*, wigeon *Anas penelope*, teal *Anas crecca*, black-tailed godwit, curlew *Numenius arquata*, spotted redshank *Tringa erythropus*, greenshank *Tringa nebularia* and turnstone *Arenaria interpres*.
- 1.7 The area also qualifies under Article 4.2 for supporting a diverse assemblage of breeding migratory waterfowl in summer, including oystercatcher and common tern, and in winter supports a diverse assemblage of wintering species such as red-throated diver and kingfisher.
- 1.8 The Medway Estuary and Marshes Ramsar qualifies for designation under a number of Ramsar criteria including as a site supporting an assemblage of international importance (Criterion 5) and supporting

species/populations occurring at levels of international importance (Criterion 6). These qualifying species include grey plover and redshank (on passage) and shelduck, dark-bellied brent goose, northern pintail, dunlin, knot and ringed plover (wintering).

Objectives

- 1.9 The principle aim of the survey work is to establish whether bird communities associated with the Medway Estuary and Marshes SPA/Ramsar use the Site and adjacent land during winter and, if so, to determine the frequency and pattern of use. The secondary aim of the survey is to further understand whether the land use affects the use by wintering birds over the survey period.

- 1.10 The aim of the report is to set out the baseline ecological conditions relating to use of the Site and adjacent areas by wintering birds, principally those species associated with the nearby SPA. The information will then be used to provide an initial assessment of the impacts of the proposed development.

2.0 METHODOLOGY

2.1 Desk Study

- 2.1.1 Records for wintering bird species were sought from the Kent and Medway Biodiversity Records Centre. Citations for nearby SSSIs and SPAs have also been reviewed.

Survey Methodology

- 2.1.2 Field survey methods were based upon and adapted from generic wintering bird monitoring methods given in Bird Monitoring Methods (Gilbert *et al.* 1998) and Bird Census Technique (Bibby *et al.*, 2003).
- 2.1.3 Surveys were undertaken on a monthly basis between January 2018 and March 2018 inclusive. Surveys were timed to coincide with the tidal cycle; January High tide, February Low Tide and March Low Tide. The transect route covered the majority of the Site and the survey area and results are shown on Figure 2-4.
- 2.1.4 The surveys concentrated on recording waterfowl and wetland species, principally those listed in the Medway SPA description. Species known to use agricultural habitats for feeding and roosting were also a particular focus of the survey and these species include dark-bellied brent geese, lapwing *Vanellus vanellus*, golden plover *Pluvialis apricaria* and curlew. Although wetland species were the focus of the survey work, all species including farmland birds and raptors were noted to understand the overall wintering bird assemblage. In addition to recording the number, distribution and flight direction of birds within the study area, environmental data were recorded including the crop type and height of crop.

Survey Technique

- 2.1.5 Observation was carried out continuously, and included the use of binoculars. A series of vantage points were incorporated into a transect route where a high powered telescope was used. The telescope was also used at additional points as necessary.
- 2.1.6 The results of each survey were tabulated and subsequently input to AutoCAD. The species codes follow the two letter codes used by the British Trust for Ornithology (BTO) and are shown in Appendix 1. The results are discussed according to the two broad habitat types present: arable field and grassland/field boundaries.

Personnel

- 2.1.7 The surveys were led by Christian Gunn, Jennifer Passmore and Helen Lucking. All are experienced bird surveyors who have undertaken previous Wetland Bird Survey (WeBS), Common Bird Census (CBC), Breeding Bird Surveys (BBS), and species-specific ornithological surveys in a professional capacity for many years.

Evaluation Methodology

- 2.1.8 The conservation importance of the breeding and wintering bird populations can be determined by using the criteria specified below:
- (a) the presence of wintering and/or 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 and species forming part of the qualifying interest of an SPA.
 - (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 (BoCC) red and amber list species (Eaton *et al* 2015).
 - (d) the presence of species identified as Priority Species in the UK Biodiversity Action Plan.
- 2.1.9 In addition, the presence of wintering and/or breeding bird populations of significant national and regional conservation importance can be determined by comparing numbers recorded on site to the percentage of the population recorded during the nearest Wetland Bird Survey (WeBS) counts and the national population. However, WeBS data was not obtained in this instance, due to the distance from the nearest wetland habitat.

Limitations

Survey Effort

- 2.1.10 The surveys covered the key period for wintering birds (January to March) but did not include the earlier winter survey months of September to December. January and February are commonly the peak months for wintering bird abundance.
- 2.1.11 The focus of the surveys was on estuarine birds as well as farmland birds. Although every attempt was made to record other species, the species assemblage is not exhaustive.
- 2.1.12 No WeBS data was obtained, therefore the numbers of birds recorded in relation to population data for the region could not be evaluated.
- 2.1.13 During May 2018 the red line boundary of the Site was extended to include the entirety of Field 1 whereas previously the red line boundary had included the northern section of the field only. Therefore the southern end of Field 1 was not specifically surveyed for wintering birds as it was outside the survey area during the wintering bird survey period. However, due to the topography of this field this southern section of the Site was largely viewable from the northern section, and due to the low levels of activity recorded in general across the Site, the survey effort is considered to be adequate to understand the wintering bird assemblage and use of the Site by wintering birds.

Double Counting

- 2.1.14 Although every attempt was taken to avoid double counting of birds, there would have been some movement of birds around the Site during the course of the survey, particularly for highly mobile species. Overall, the species and numbers recorded are considered to be a fair representation of what was present in the survey area.

Obscured Sightlines

- 2.1.15 The majority of the fields had excellent sightlines and visibility, with open fields and low or defunct boundary features that did not obscure viewing.

Disturbance

- 2.1.16 No significant disturbances to the survey effort was noted such as bird scarers, drone use or public interference.

3.0 RESULTS

3.1 Desk Study

3.1.1 Medway Estuary and Marshes Ramsar Site, Special Protection Area (SPA) Site of Special Scientific Interest (SSSI) is located 3.4km north of the nearest Site edge. It qualifies under Article 4.1 of the Birds Directive by supporting populations of European importance listed on Annex 1 of the Directive:

During the breeding season:

- **Avocet** *Recurvirostra avosetta* – 28 pairs representing at least 4.7% of the breeding population in Great Britain (5 year mean 1988 – 1992)
- **Little Tern** *Sterna albifrons* - 28 pairs representing at least 1.2% of the breeding population in Great Britain (5 year mean 1991 – 1995)

Over winter:

- **Avocet** *Recurvirostra avosetta* – 314 individuals representing at least 24.7% of the wintering population in Great Britain (5 year peak mean 1991/92 – 1995/96)

3.1.2 The SPA also qualifies under Article 4.2 of the Birds Directive by supporting populations of European importance of the following migratory species:

On passage:

- **Ringed plover** *Charadrius hiaticula* – 1337 individuals representing at least 2.7% of the European/North Africa wintering population in Great Britain (5 year peak mean 1991/92 – 1995/96)

Over winter:

- **Black-tailed godwit** *Limosa limosa islandica* – 957 individuals representing at least 1.4% of the Icelandic breeding population (5 year peak mean 1991/92 – 1995/96)
- **Dark-bellied brent goose** *Branta bernicla bernicla* – 3205 individuals representing at least 1.1% of the wintering Western Siberia/Western Europe population (5 year peak mean 1991/92 – 1995/96)
- **Dunlin** *Calidris alpina alpina* – 25,936 individuals representing at least 1.9% of the wintering Northern Siberia/Europe/Western Africa population (5 year peak mean 1991/92 – 1995/96)
- **Grey plover** *Pluvialis squatarola* - 3406 individuals representing at least 2.3% of the wintering Eastern Atlantic wintering population (5 year peak mean 1991/92 – 1995/96)
- **Pintail** *Anas acuta* – 697 individuals at least 1.2% of the wintering North-western Europe population (5 year peak mean 1991/92 – 1995/96)
- **Redshank** *Tringa totanus* – 3690 individuals representing at least 2.5% of the wintering Eastern Atlantic wintering population (5 year peak mean 1991/92 – 1995/96)
- **Ringed plover** *Charadrius hiaticula* – 7668 individuals representing at least 1.5% of the Europe/Northern Africa wintering population (5 year peak mean 1991/92 – 1995/96)

- **Shelduck** *Tadorna tadorna* – 4465 individuals representing at least 1.5% of the wintering Northwestern Europe population (5 year peak mean 1991/92 – 1995/96)

3.1.3 The area also qualifies under Article 4.2 of the Birds Directive by regularly supporting at least 20,000 waterfowl. Over winter the area regularly supports 65,274 individual waterfowl (5 year peak mean 1991/92 – 1995/96) including: Little grebe *Tachybaptus ruficollis*, dark-bellied brent goose, shelduck, pintail, ringed plover, grey plover, dunlin, avocet, redshank, curlew *Numenius arquata*, great-crested grebe *Podiceps cristatus*, cormorant *Phalacrocorax carbo*, wigeon *Anas penelope*, teal *Anas crecca*, oystercatcher *Haematopus ostralegus*, lapwing *Vanellus vanellus*, black-tailed godwit.

Records Centre Data

3.1.4 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. Records of Red or Amber listed wetland birds within a 3km radius of the Site include; black-throated diver *Gavia arctica*, great northern diver *Gavia immer*, black-necked grebe *Podiceps nigricollis*, Slavonian Grebe *Podiceps auritus*, Manx Shearwater *Puffinus puffinus*, brent goose *Branta bernicla*, shag *Phalacrocorax aristotelis*, greylag goose *Anser anser*, swan *Cygnus olor*, white-fronted goose *Anser albifrons*, shelduck *Tadorna tadorna*, teal *Anas crecca*, shoveler *Anas clypeata*, marsh harrier *Circus aeruginosus*, osprey *Pandion haliaetus*, oystercatcher *Haematopus ostralegus*, avocet *Recurvirostra avosetta*, ringed plover *Charadrius hiaticula*, grey plover *Pluvialis squatarola*, lapwing *Vanellus vanellus*, sanderling *Calidris alba*, snipe *Gallinago gallinago*, mallard *Anas platyrhynchos*, turnstone *Arenaria interpres*, Arctic skua *Stercorarius parasiticus*, Mediterranean gull *Larus melanocephalus*, black-headed gull *Larus ridibundus*, common gull *Larus canus*, common turn *Sterna hirundo*, herring gull *Larus argentatus* and woodcock *Scolopax rusticola*.

Land Use

3.1.5 The land uses at the start and end of the survey period were recorded. All fields within the survey area were in arable use and were planted with winter wheat, retaining a low (<15cm) crop height for the duration of the survey period.

Survey Results - Overview

Species Recorded

- 3.1.6 During the wintering bird surveys, a total of 28 species were recorded, these were:
- Blackbird *Turdus merula*
 - Black-headed gull *Chroicocephalus ridibundus*
 - Blue tit *Cyanistes caeruleus*
 - Carrion crow *Corvus corone*

- Chaffinch *Fringilla coelebs*
- Corn bunting *Emberiza calandra*.
- Dunnock *Prunella modularis*
- Goldfinch *Carduelis carduelis*
- Great spotted woodpecker *Dendrocopos major*
- Great tit *Parus major*
- Green woodpecker *Picus viridis*
- Greenfinch *Chloris chloris*
- Herring gull *Larus argentatus*
- Jay *Garrulus glandarius*
- Jackdaw *Corvus monedula*
- Linnet *Carduelis cannabina*,
- Long-tailed tit *Aegithalos caudatus*
- Magpie *Pica pica*
- Moorhen - *Gallinula chloropus*
- Mute swan - *Cygnus olor*
- Pied wagtail - *Motacilla alba*
- Robin *Erithacus rubecula*
- Rook *Corvus frugilegus*,
- Skylark *Alauda arvensis*,
- Sparrowhawk *Accipiter nisus*
- Starling *Sturnus vulgaris*
- Woodpigeon *Columba palumbus*
- Wren *Troglodytes troglodytes*

3.1.7 The majority of the species recorded during the wintering bird surveys would be considered widespread throughout a variety of habitats in the UK or are typical of a farmland bird assemblage. Four of the 28 species identified on or adjacent to the Site are estuarine, wetland or waterfowl species; mute swan, moorhen, herring gull and black-headed gull.

3.1.8 The location of the species recorded during the course of the surveys are illustrated on Figures 2, 3 and 4.

Species Accounts

Wetland Species

3.1.9 Two species of gull, black-headed gull and herring gull, were recorded in low numbers frequently using the arable fields within the Site boundary for refuge and foraging. Black-headed gull was recorded during all

three surveys with a peak count of eight within the Site boundary during March 2018, Herring gull were recorded on all three surveys with a peak count of nine recorded within the Site boundary during the January 2018 survey.

- 3.1.10 Moorhen and mute swan were recorded in habitats adjacent to but outside the Site boundary, within Capstone Country Park.

Raptors

- 3.1.11 A single raptor species was recorded onsite during the wintering bird survey. Sparrowhawk was recorded toward the northern boundary of the Site during the March visit.

Farmland Passerines

- 3.1.12 There were seven passerine species primarily associated with arable or mixed-use farmland identified on the Site during the wintering bird surveys; duncock, corn bunting, skylark, starling, linnet, chaffinch and goldfinch.

- 3.1.13 Corn bunting, starling and skylark were seen within the Site during the survey, with corn bunting recorded on all three surveys and skylark and starling recorded using the habitats within the Site during March only.

Other Species

- 3.1.14 Jackdaw, rook and magpie were recorded regularly within the arable field of the Site. Blackbird, blue tit, carrion crow, great tit, greenfinch, green woodpecker, long-tailed tit, robin, woodpigeon and were also recorded in the survey area.

4.0 EVALUATION

4.1 Key Species Summary

Wetland/Estuarine Species

- 4.1.1 During the wintering bird survey a total of 28 species were recorded. Of these 28 species four would be considered wetland or estuarine species, including herring gull, black-headed gull, moorhen and mute swan. Of these four species, herring gull and black-headed gull were recorded within the Site boundary. The two gull species were recorded on every survey singly or in low numbers (<10 peak count) foraging and resting throughout the northern section of the Site. Significantly higher numbers of black-headed gull (peak count 105 January) and herring gull (peak count 50 January) were regularly recorded using habitats (arable land, playing fields) outside the Site. It is considered that the habitats within the Site support less favoured habitat

Raptors

- 4.1.2 A sparrowhawk was recorded flying through Site during the March survey. This species is likely to be breeding outside or adjacent to the Site boundary and using the Site for foraging or commuting.

Farmland Passerines

- 4.1.3 The farmland passerine community included chaffinch, dunnoek, corn bunting, goldfinch, linnet, skylark and starling. Aggregations of chaffinch, skylark, goldfinch, linnet and corn bunting were noted.

Conservation Importance of the Bird Assemblage

Annex 1 Species (Birds Directive) and Species of Qualifying Interest for the SPA/Ramsar

- 4.1.4 The nearest SPA supports three important populations of species listed on Annex 1 on the Birds Directive: avocet and little tern during the breeding season and avocet over winter. No avocet were recorded within the Site during the wintering period. Bird surveys undertaken during the breeding season (March – July) did not record avocet or little tern, and neither species are not known for readily using arable habitats during summer.
- 4.1.5 The SPA supports populations of eight species listed on Annex II of the Birds Directive including ringed plover, black-tailed godwit, dark-bellied brent goose, dunlin, grey plover, pintail, redshank and shelduck. None of the preceding species were recorded during the wintering surveys.

Schedule 1 Species (Wildlife and Countryside Act 1981)

- 4.1.6 No Schedule 1 WCA species were recorded using the Site during the wintering bird surveys.

Birds of Conservation Concern 4 (BoCC) Red List Species

- 4.1.7 Five species listed on the BoCC Red List for significant declines in population or range contractions have been recorded within the Site during the wintering bird survey. Herring gull is listed due to its decline during the non-breeding (wintering) period. Herring gull has declined by between 48% since 1970. Herring gull were recorded on all three surveys with a peak count of three recorded during the January 2018 survey.
- 4.1.8 The other species listed on the BoCC Red List include corn bunting, linnet, skylark, starling, These species are listed on the BoCC 4 Red List due to steep declines in their breeding population and/or contraction in range. Corn bunting and skylark are species of open arable farmland and both species have undergone historic declines, both in their breeding population, breeding range and their non-breeding range. Corn bunting are listed due to the decline in their non-breeding (wintering) population or range. The habitats in the Survey Area have the potential to support this species which is declining and is a target for conservation in Kent and the UK.

Birds of Conservation Concern (BoCC) Amber List Species

- 4.1.9 Estuarine birds recorded which are on the BoCC Amber List include black headed-gull, due to its decline during the non-breeding, wintering period. Black-headed gull was recorded during all three surveys with a peak count of eight black-headed gulls during the March 2018 survey within Field 2.
- 4.1.10 Other non-estuarine species recorded which are listed on the BoCC Amber List for their population decline include dunnock and mute swan.

Priority Species in the UK Biodiversity Action Plan

- 4.1.11 There are five species recorded during the wintering bird surveys which are UK priority species (UK BAP) and these are; corn bunting, herring gull, linnet, skylark, and starling. These species are also listed as Species of Principal Importance under the NERC Act (2006).

Kent Red Data Book Species

- 4.1.12 A total of five Kent RDB2 species have been recorded; corn bunting, herring gull, linnet, skylark and starling.
- 4.1.13 No Kent RDB3 wintering bird species have been recorded.

Conservation Importance – SPA/Ramsar

- 4.1.14 Over winter, the Medway Estuary & Marshes SPA/Ramsar regularly supports 65,274 individual waterfowl (5 year peak mean 1991/2 - 1995/6; JNCC, 2001). The Site has been found to not support a significant number of waterfowl; only two species of wetland species have been recorded in the Site (black-headed

gull and herring gull) and these were present in low numbers. The Site is therefore considered to be of negligible importance to the functionality of the SPA

Conservation Importance – Species of Conservation Concern

- 4.1.15 The Site has been found to support wintering habitat for a number of farmland passerines, notably linnet, skylark and corn bunting. These species share similar habitat requirements (although skylark and corn bunting are ground-nesting species) and often spend the winter foraging on seed rich stubble fields prior to the breeding season. Changes in farming practices and loss of suitable habitat during winter have contributed to the significant decline in the wintering populations of linnet, corn bunting and skylark in the UK (Moorcroft et al, 2002).

Conservation Importance - Local Wildlife Sites

- 4.1.16 The criteria used for the designation of Local Wildlife Sites (previously known as SINCS or County Wildlife Sites) in Kent (Kent Wildlife Trust, 2005) can be used to assess the local importance of the Site for birds. 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:

- a) 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*
- b) 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); or*
- c) 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*
- d) It has been recorded as being regularly used in recent years by at least 60 wintering bird species;*
or
- e) It has been recorded as being regularly used in recent years by at least 100 passage bird species.”*

- 4.1.17 None of the habitat areas within the Site (arable, woodland and scrub, field margin) meet these criteria. Overall the Site is therefore not considered to be suitable for eligibility as a Local Wildlife Site. The wintering bird assemblage supported is considered to be of **Neighbourhood Importance**.

5.0 CONCLUSIONS

- 5.1 Corylus Ecology has undertaken wintering bird surveys from January 2018 to March 2018 within the three arable fields that form East Hill, Hempstead, Medway.
- 5.2 A total of two wetland bird species (herring gull and black-headed gull), a single raptor species (sparrowhawk) and an assemblage of wintering farmland passerines (linnet, skylark and corn bunting) were recorded within the Site during the January to March 2018 Surveys.
- 5.3 The wider survey area is considered to be of negligible importance to the functionality of the nearby SPA, given the extent of these types of habitats in the surrounding area and the low numbers of estuarine birds recorded within the Site. The bird assemblage supported is considered to be of **Neighbourhood Importance**.

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Key

-  Site Survey Area
-  3km Site Radius
-  Site of Special Scientific Interest
-  Local Nature Reserve
-  Ancient Woodland
-  Country Park
-  Kent Wildlife Trust Site
-  Great Crested Newt Record
-  Dormouse Record
-  Slow Worm Record
-  Common Lizard Record
-  Adder Record
-  Grass Snake Record
-  Bat Roost Record
-  Hibernating Bat Record

revision	description	date	checked by



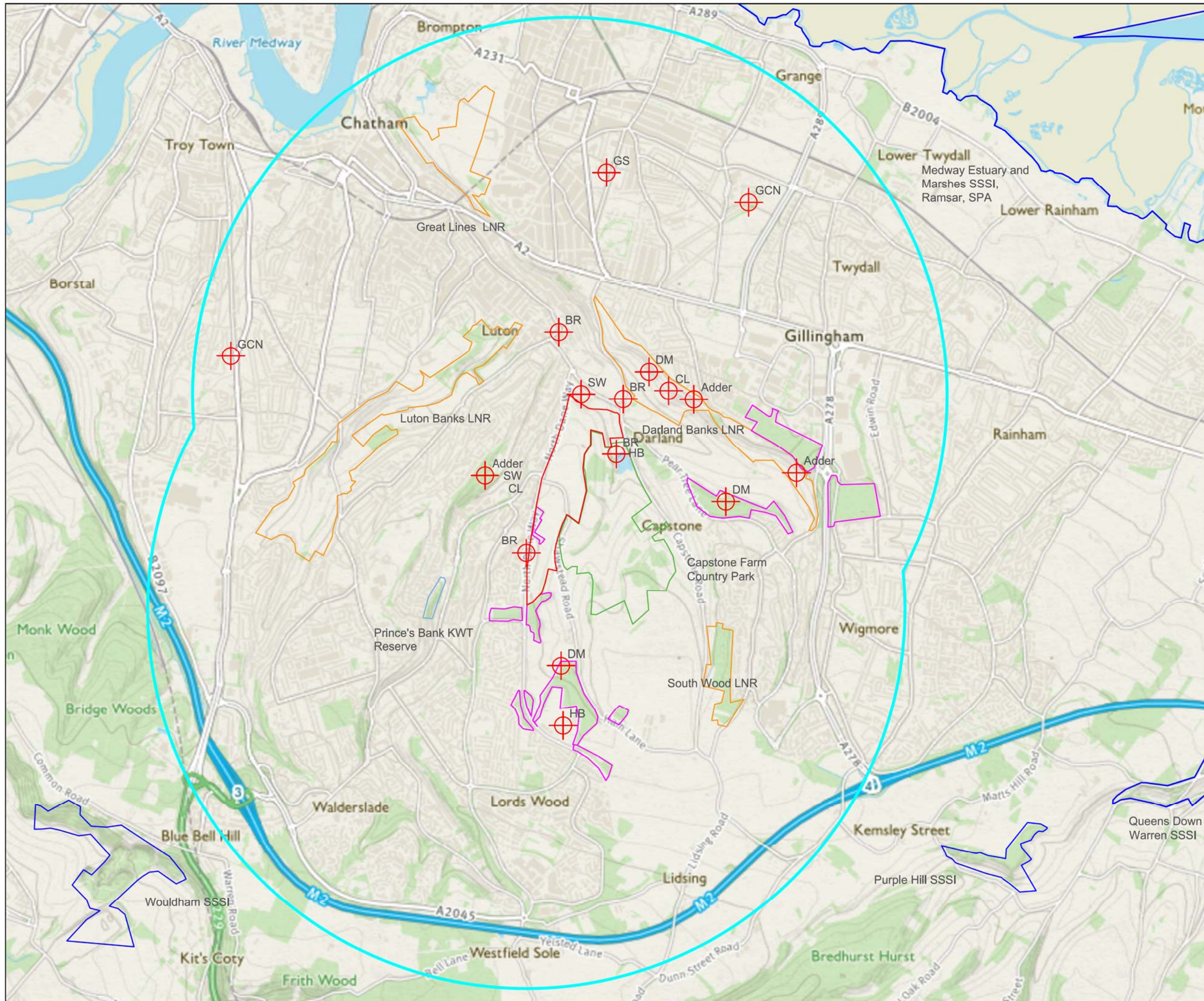
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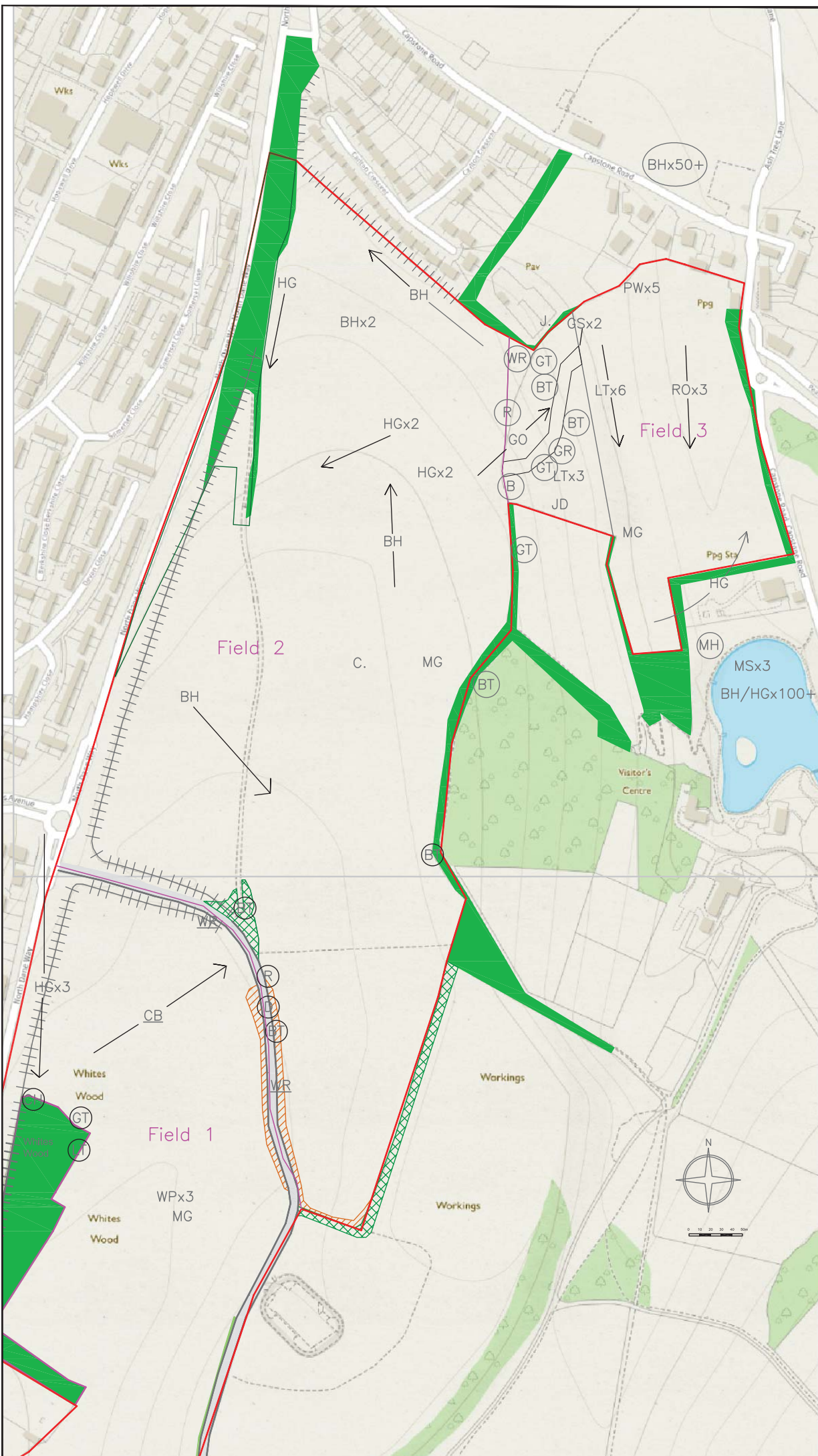
Project: 17032 East Hill, Hempstead

Title: Desk Study Plan

status		drawing no. Figure 1		
scale NTS	size A3	date 20.02.2019	drawn AW	checked HL

CAD filename: Figure_1.dwg





- Key
- Site Area
 - Field Compartments
 - B Blackbird
 - BH Black-headed Gull
 - BT Blue tit
 - C Carrion Crow
 - CH Chaffinch
 - CB Corn bunting
 - D Dunnock
 - GO Goldfinch
 - GS Great spotted woodpecker
 - GT Great tit
 - G Green Woodpecker
 - GT Greenfinch
 - HG Herring Gull
 - JD Jackdaw
 - J. Jay
 - L Linnet
 - LT Long-tailed tit
 - MG Magpie
 - MH Moorhen
 - MS Mute swan
 - PW Pied wagtail
 - R. Robin
 - RO Rook
 - S Skylark
 - SH Sparrowhawk
 - SG Starling
 - WP Woodpigeon
 - WR Wren
 - WR Wren in song
 - Aggressive encounter between two robins
 - WR WR Simultaneous registration of two different individuals

Ordnance Survey
 Licence Number
 100050443

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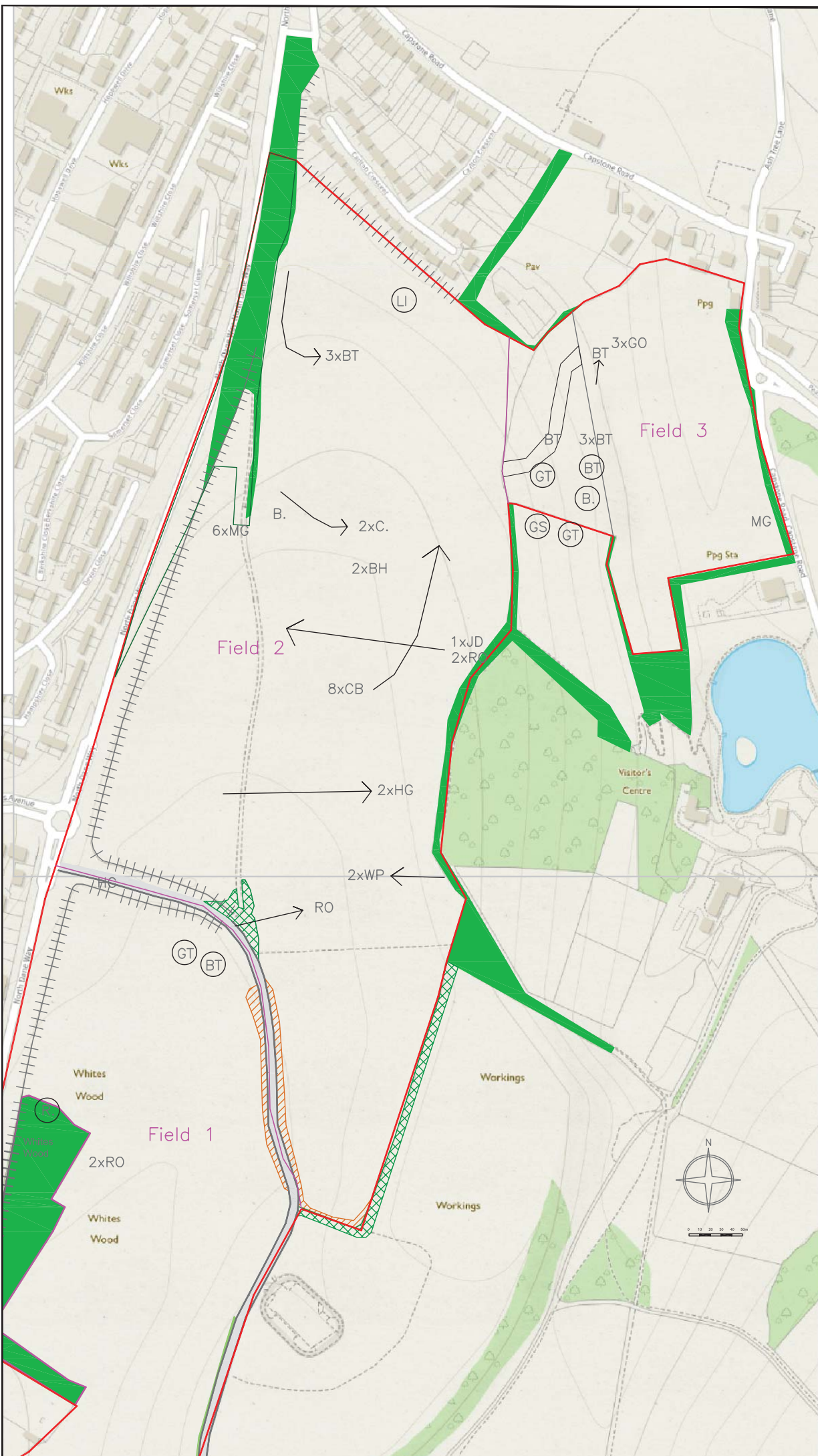


Project:
 17032 East Hill, Hempstead

Title:
 Winter Bird Survey Results
 January 2018

status drawing no. **Figure 2**

scale	size	date	drawn	checked
NTS	A3	26.02.2019	AW	HL
CAD filename Figure_1.dwg				



- Key**
- Site Area
 - Field Compartments
 - B Blackbird
 - BH Black-headed Gull
 - BT Blue tit
 - C Carrion Crow
 - CH Chaffinch
 - CB Corn bunting
 - D Dunnock
 - GO Goldfinch
 - GS Great spotted woodpecker
 - GT Great tit
 - G Green Woodpecker
 - GT Greenfinch
 - HG Herring Gull
 - JD Jackdaw
 - J. Jay
 - LI Linnet
 - LT Long-tailed tit
 - MG Magpie
 - MH Moorhen
 - MS Mute swan
 - PW Pied wagtail
 - R. Robin
 - RO Rook
 - S Skylark
 - SH Sparrowhawk
 - SG Starling
 - WP Woodpigeon
 - WR Wren
 - WR Wren in song
 - Aggressive encounter between two robins
 - WR - WR Simultaneous registration of two different individuals

Ordnance Survey
Licence Number
100050443

revision	description	date	checked by

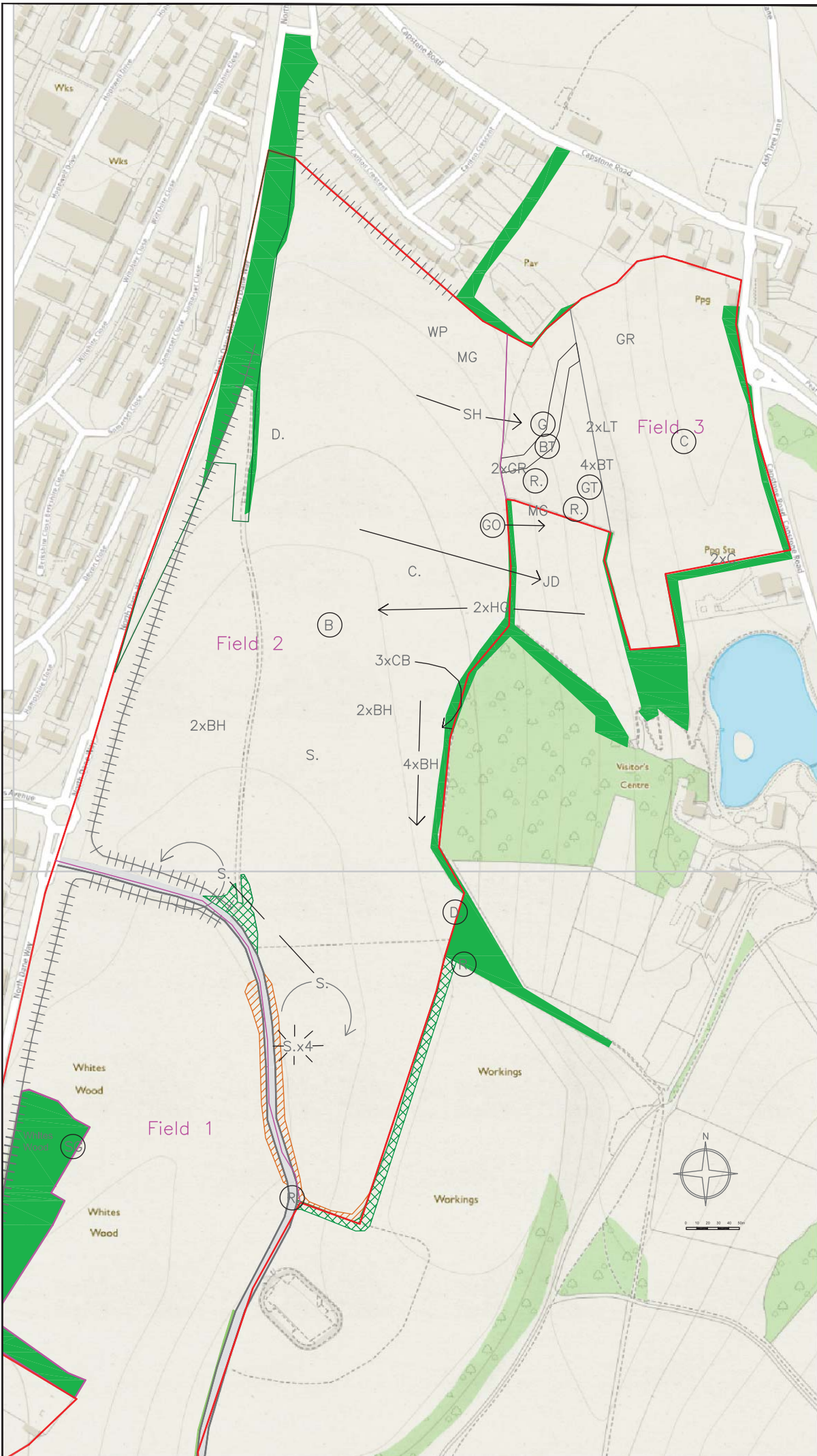
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Project:
17032 East Hill, Hempstead

Title:
Winter Bird Survey Results
February 2018

status		drawing no.		Figure 3	
scale	NTS	size	A3	date	25.02.2019
CAD filename	Figure_1.dwg	drawn	AW	checked	HL



Key

- Site Area
- Field Compartments
- B Blackbird
- BH Black-headed Gull
- BT Blue tit
- C Carrion Crow
- CH Chaffinch
- CB Corn bunting
- D Dunnock
- GO Goldfinch
- GS Great spotted woodpecker
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- G Green Woodpecker
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- L Linnet
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- MS Mute swan
- PW Pied wagtail
- R Robin
- RO Rook
- S Skylark
- SH Sparrowhawk
- SG Starling
- WP Woodpigeon
- WR Wren
- WR Wren in song
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- WR - WR Simultaneous registration of two different individuals

Ordnance Survey
Licence Number
100050443

revision	description	date	checked by

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Project: 17032 East Hill, Hempstead

Title: Winter Bird Survey Results March 2018

status	drawing no.	scale	size	date	drawn	checked
		NTS	A3	26.02.2019	AW	HL

Figure 4

Figures_12hg

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.