

Steeple Renewables Project

Appendix 7.6: Wintering bird report

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1 Introduction

1.1 This report is a technical appendix to accompany the Preliminary Environmental Information Report (PEIR) Chapter 7: Ecology and Biodiversity and includes the following information:

- Methods.
- Results including relevant Figures, and summary interpretation.

1.2 For ease of reference the following will be terms referred to within this report to define areas within the Site:

- Proposed Solar Areas: areas within the Site which have been provisionally identified for locating the solar panels, battery storage and other associated infrastructure.
- Biodiversity Mitigation Areas (Eastern and Western): areas of the Site that would not be used for development, and provisionally identified for use as biodiversity mitigation and enhancement.

The Site: collectively including the Proposed Solar Areas and Biodiversity Mitigation Areas.

2 Methods

Desk study

- 2.1 A data search for records of protected and notable species, including wintering birds, within 2km of the Site was requested from Nottinghamshire Biodiversity Records Centre (NBRC) and Lincolnshire Environmental Records Centre (LERC) in March 2024.
- 2.2 Consideration of records up to twenty years old as of the request date (March 2024) is included within this report where relevant, as older records are less likely to be of relevance to the current baseline in the local area. Older records were reviewed as part of the desk study and are included where considered to be relevant to the Site, for example they occur on or adjacent to the Site.
- 2.3 Nottinghamshire Country Council planning application reference 1/46/06/00014 is a quarry scheme (not yet implemented) that is located adjacent the Site's northeast boundary on the farmland between the Site and the River Trent. The survey boundary for the quarry application included areas of the Site to the south of West Burton Power Station in the Proposed Solar Area. The ecology report for that application (ESL Ltd, 2010) presents the results of wintering bird surveys undertaken in 2009 / 10 which were reviewed as part of the desk study for this report.
- 2.4 Several designated sites with features of interest / qualifying features that include wintering birds are located within the search area for designated sites. This is dealt with in the baseline report for designated sites (Appendix 7.2 of the Ecology Chapter).
- 2.5 The Birds of Nottinghamshire Annual Report for 2020 (Nottinghamshire Birdwatchers, 2023) was reviewed in an effort to establish the status of the bird species recorded at the Site. The Nottinghamshire Annual Report does not give population estimates for the species, but provides the following terms and definitions in relation to Nottinghamshire:
- Very rare: 10 or fewer records ever.
 - Rare: 11 to 50 records ever.
 - Uncommon: Resident species with a very limited distribution in the county or non-resident species usually recorded in very limited numbers.
 - Fairly common: Resident or migrant species likely to be seen in modest numbers during most visits to suitable habitats.
 - Common: Resident or migrant species likely to be seen in reasonable numbers of all visits to suitable habitats.

Field survey

- 2.6 Surveys to characterise the wintering bird community were undertaken between October 2023 and March 2024 (inclusive) with one visit per month, and with reference to methods suggested by the Bird Survey & Assessment Steering Group (2023). Owing to the size of the survey area, each survey was split over five days to permit full coverage of the Site. Appendix 7.6.1 presents the dates of wintering bird characterisation survey visits and weather conditions.
- 2.7 During each visit, the surveyor walked across the survey area scanning all habitats present (within the Site boundary and the immediate surrounding area) using binoculars as required. Frequent stops were made to listen and scan for birds. Birds observed beyond the boundary were also noted. Bird locations were mapped and behaviour recorded using standard British Trust for Ornithology (BTO) codes and symbols (Gilbert, G., Gibbons, D.W. & Evans, J., 1998).

Personnel

- 2.8 The wintering bird characterisation surveys were undertaken by Andrew Cockroft. Andrew is an experienced ornithological surveyor who regularly undertakes breeding and wintering bird surveys based on established methodologies as set out above.

Consideration of potential limitations

- 2.9 Full access was not possible to two areas of Site (as shown on Figure 7.6.1) and these were surveyed from Public Rights of Way (PRoWs). During the surveys, these fields and boundaries were observed where possible using binoculars from the PRoWs which is considered to have reduced the potential significance of the limitation. These areas are largely unaffected by the proposed development and are identified for biodiversity enhancements.
- 2.10 Minor modifications to the Site boundary following the completion of the wintering bird surveys has resulted in the removal of certain surveyed areas, and the inclusion of some small areas that were not surveyed; these areas account for approximately 5% of the total Site area. However, the main areas impacted by the Proposed Solar Areas have remained and are largely unaffected by the boundary changes. Those areas that were not directly surveyed are adjacent to those that were surveyed and given the survey methodology of scanning beyond the survey boundary for off-site bird activity, it is considered likely that significant activity in the indirectly surveyed fields would have been observed and recorded.
- 2.11 These limitations are not considered to be significant, and the wintering bird interest of the Site has been adequately characterised, as the majority of the Site, including the areas to be impacted by the Proposed Solar Areas, were extensively surveyed. The wintering bird characterisation survey is considered to be robust and has enabled the identification of any protected or sensitive ornithological receptors.
- 2.12 Wintering bird data gathered on each monthly survey occasion were collected over several days due to the size of the Site. As such, it is possible that there was some 'double counting' of the same birds as they move within the Site between the survey dates, which would result in an apparent increase in peak counts for that monthly period. Whilst this may have an effect on the data collected, the likely outcome would be a slight inflation of the numbers of birds and an elevated evaluation of the Site's assemblage, rather than an under-representation or undervaluing of the Site's importance to wintering birds. The overall effect is not likely to be significant.

3 Results and summary interpretation

Desk study

Biological records centre data

- 3.1 NBRC provided 72 records and LERC 6,159 records of birds recorded during the wintering period (October to March inclusive). There were no wintering records from within the Site. A summary of relevant records of bird species identified for conservation action¹ or those which are species associated with the Humber Estuary Ramsar Site is provided below.
- 3.2 There are 18 records of wintering birds adjacent to the southern boundary of the Eastern Biodiversity Mitigation Area at Littleborough dated between 2009 and 2019. Typically, these were water or wading bird species, including such as: little egret *Egretta garzetta*, common shelduck *Tadorna tadorna*, green sandpiper *Tringa ochropus*, Bewick's swan *Cygnus columbianus*, Eurasian wigeon *Mareca penelope*, cormorant *Phalacrocorax carbo*, mute swan *Cygnus olor*, whooper swan *Cygnus cygnus*, dunlin *Calidris alpina*, European golden plover *Pluvialis apricaria* and lapwing *Vanellus vanellus*. Short-eared owl *Asio flammeus* was also recorded.
- 3.3 NBRC provided records from the villages of Sturton le Steeple, Fenton and Leverton dated between 2012 and 2020 which included several wading bird species and great grey shrike *Lanius excubitor*, lesser spotted woodpecker *Dendrocopos minor*, peregrine falcon *Falco peregrinus*, starling *Sturnus vulgaris*, fieldfare *Turdus pilaris* and winchat *Saxicola rubetra*.

Pre-existing site survey data

- 3.4 Four wintering bird surveys were undertaken in support of the adjacent quarry application (one per month from November 2009 to February 2010). In total, 70 bird species were recorded within the survey area of the quarry application. This included a number of species identified for conservation action including peregrine falcon, wigeon, skylark *Alauda arvensis*, starling, fieldfare, song thrush *Turdus philomelos*, kingfisher *Alcedo atthis*, snipe *Gallinago gallinago*, herring gull *Larus argentatus*, dunnock *Prunella modularis*, lapwing and willow tit *Poecile montanus*. It was noted in particular that flocks of wading and waterbirds were recorded in the wetland areas adjacent the River Trent including Out Ings Local Wildlife Site (LWS) which is located to the north of the Eastern Biodiversity Mitigation Area of the Steeple Renewables Project.

Field survey

- 3.5 During the 2023/2024 wintering bird survey, 86 species of birds were recorded at the Site. The results of the wintering bird surveys are shown in Figures 7.6.2.1 to 7.6.7.2 and further detail is provided in Appendix 7.6.1.
- 3.6 Of the overall total recorded, 46 are species that have been identified for conservation action and / or are species associated with the Humber Estuary Ramsar Site Table 1 presents a summary of these species with the peak counts recorded.

1.1 ¹ Species that are on the red list of Birds of Conservation Concern (Eaton et al., 2021), Species listed on Schedule 1 of The Wildlife and Countryside Act 1981 (as amended), Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act 2006, and / or Species of Conservation Concern on the Nottinghamshire Biodiversity Action Plan (BAP).

Table 1: Summary of wintering bird species recorded within the Proposed Solar Area that are red listed, Species of Principal Importance (SPI) Nottinghamshire Local Biodiversity Action Plan Species of Conservation Concern, and / or are associated with the Humber Estuary Ramsar Site.

Common name	Scientific name	Peak count by site area			Conservation status*	Species status in Nottinghamshire (Nottinghamshire Birdwatchers, 2023)	Summary or recorded activity at the Site
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area			
Bullfinch	<i>Pyrrhula pyrrhula</i>	-	2	-	Amber listed SPI LBAP	A fairly common resident.	Recorded on 1 of 6 surveys (March 2024), and within the Western Biodiversity Mitigation Area only. Not recorded within the Proposed Solar Areas.
Blackheaded Gull	<i>Chroicocephalus ridibundus</i>	188	17	130	Amber listed LBAP	A common winter visitor, passage migrant and uncommon breeding bird.	Recorded on each survey occasion within the Site, typically in the open fields within the Proposed Solar Areas and on the lake (Littleborough Lagoon LWS) in the Eastern Biodiversity Mitigation Area. Flocks of birds of varying sizes were recorded within the Proposed Solar Areas on each survey occasion, with small groups of 4 – 10 birds and occasionally larger flocks of up to 150 birds; the mean total count within the Proposed Solar Areas was 108 birds.
Barn Owl	<i>Tyto alba</i>	3	-	2	Green listed Sch1 LBAP	An uncommon resident.	Recorded on 2 of 6 surveys (February and March 2024) with individual birds hunting along grassland field margins.
Cormorant	<i>Phalacrocorax carbo</i>	-	-	4	Green listed LBAP	A common resident and winter visitor.	Recorded on 1 of 6 surveys (March 2024) at the lake (Littleborough Lagoon LWS) in the Eastern Biodiversity Mitigation Area...
Coot	<i>Fulica atra</i>	-	-	5	Green listed LBAP	A common resident and winter visitor.	Recorded on 3 of 6 surveys associated with Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area only. Not recorded within the Proposed Solar Areas.
Curlew	<i>Numenius arquata</i>	-	-	3	Red listed SPI LBAP	An uncommon passage migrant and very rare breeding bird.	Recorded on 1 of 6 (March 2024) surveys within the open fields in the Eastern Biodiversity Mitigation Area only. Not recorded within the Proposed Solar Areas.
Dunnock	<i>Prunella modularis</i>	9	3	2	Amber listed SPI LBAP	A common resident.	Recorded on all survey occasions associated with field boundary hedgerows and treelines.
Dunlin	<i>Calidris alpina</i>	1	-	2	Red listed	A fairly common passage migrant.	Recorded on 2 of 6 surveys (December 2023 and March 2024). Two birds observed within an arable field during December 2023 in the Eastern Biodiversity Mitigation Area, and one bird during March 2024 in an arable field within the Proposed Solar Areas.
Fieldfare	<i>Turdus pilaris</i>	1297	160	100	Red listed Sch1	A common winter visitor.	Recorded on all survey occasions within the Proposed Solar Areas and most occasions within the Biodiversity Mitigation Areas. Fieldfare was recorded throughout the Site, typically associated with arable fields, the field margins and hedgerows. During January 2024 increased numbers of fieldfare were recorded with a total of 1297 birds in the Proposed Solar Areas; most flocks observed during this survey were 50-200 birds, with one flock of 320 birds. Across all surveys, the mean total count within the Proposal Solar Areas was 387 birds. Excluding January, the results across the Proposed Solar Areas were more consistent with typical flock sizes of 20-80 birds and a mean total of 205 from the five surveys.

Common name	Scientific name	Peak count by site area			Conservation status*	Species status in Nottinghamshire (Nottinghamshire Birdwatchers, 2023)	Summary or recorded activity at the Site
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area			
Gadwall	<i>Mareca strepera</i>	-	-	12	Amber listed LBAP	A fairly common winter visitor and uncommon breeding bird.	Recorded on 4 of 6 surveys within the Eastern Biodiversity Mitigation Area only, where all birds were recorded on Littleborough Lagoon LWS. Not recorded within the Proposed Solar Areas
Greenfinch	<i>Chloris chloris</i>	17	3	-	Red listed	A common resident.	Recorded on all surveys within the Proposed Solar Areas, and once in the Western Biodiversity Mitigation Area. All birds were recorded in association with field boundary hedgerows.
Grey Heron	<i>Ardea cinerea</i>	4	-	4	Green listed LBAP	A fairly common resident and uncommon breeding bird.	Recorded on all surveys within the Site and 5 of 6 surveys in the Proposed Solar Areas. Typically associated with waterbodies and also occasionally recorded within arable fields.
Herring Gull	<i>Larus argentatus</i>	15	-	-	Red listed	A common winter visitor and passage migrant.	Recorded on 5 of 6 surveys within the Proposed Solar Areas, typically in small groups within arable fields.
Hen Harrier	<i>Circus cyaneus</i>	1	-	1	Red listed Sch1 SPI LBAP	An uncommon passage migrant and winter visitor.	An individual young female hen harrier was recorded hunting within the Site during four of six wintering bird surveys, three times within the Proposed Solar Areas and once in the Eastern Biodiversity Mitigation Area. Typically, the hen harrier was hunting along the drains within the Proposed Solar Areas or habitats near to the River Trent within the Eastern Biodiversity Mitigation Area.
House Sparrow	<i>Passer domesticus</i>	4	8	-	Red listed SPI LBAP	A common resident.	Recorded on all surveys within the Site and 2 of 6 surveys within the Proposed Solar Areas (December 2023 and February 2024). Typically recorded in association with boundary hedgerows and treelines.
Kestrel	<i>Falco tinnunculus</i>	9	3	4	Amber listed LBAP	A fairly common resident.	Recorded on all surveys across the Site with birds seen hunting along grassland field margins or flying over the Site.
Lapwing	<i>Vanellus vanellus</i>	-	-	150	Red listed SPI LBAP	A common resident, passage migrant and winter visitor.	Recorded on 5 of 6 surveys in the Eastern Biodiversity Mitigation Area only. Birds were typically recorded in the same arable fields in flocks of c. 20-55 birds, with larger flocks recorded in December 2023 (80 birds) and January 2024 (150 birds). Not recorded within the Proposed Solar Area or Western Biodiversity Mitigation Area.
Lesser Blackbacked Gull	<i>Larus fuscus</i>	30	3	-	Amber listed LBAP	A common visitor and rare breeding bird.	Recorded on 5 of 6 surveys in the Proposed Solar Areas, and once within the Western Biodiversity Mitigation Area (March 2024). Not recorded within the Eastern Biodiversity Mitigation Area. Typically observed in small groups (<10 birds) within arable fields throughout the Proposed Solar Areas.
Linnet	<i>Linaria cannabina</i>	326	-	385	Red listed SPI LBAP	A common resident and passage migrant.	Recorded on all surveys in the Proposed Solar Areas and 4 of 6 surveys in the Eastern Biodiversity Mitigation Area. Within the Proposed Solar Areas, linnet were typically recorded within arable fields in varying flock sizes either smaller (5 – 50 birds) to larger (100 – 250 birds). The mean total count of linnet within the Proposed Solar Areas was 237 birds per survey. During the December 2023 survey, larger numbers of linnet were recorded within the Eastern Biodiversity Mitigation Area with 250 birds recorded in a hedgerow, and 135 birds in a nearby arable field.

Common name	Scientific name	Peak count by site area			Conservation status*	Species status in Nottinghamshire (Nottinghamshire Birdwatchers, 2023)	Summary or recorded activity at the Site
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area			
Little Egret	<i>Egretta garzetta</i>	5	-	7	Green listed LBAP	A fairly common resident and rare breeding bird.	Recorded on all survey occasions within the Site, and 4 of 6 surveys (October, November 2023, January and February 2024) in the Proposed Solar Areas. Typically associated with waterbodies such as Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area or the larger drains within the Proposed Solar Areas; also occasionally recorded within arable fields.
Mistle Thrush	<i>Turdus viscivorus</i>	3	-	2	Red listed LBAP	A fairly common resident.	Low numbers recorded on all surveys within the Site and during 4 of 6 surveys within the Proposed Solar Areas. Birds were typically recorded in field boundary hedgerows and occasionally within grassland pasture and arable fields.
Mallard	<i>Anas platyrhynchos</i>	18	2	28	Red listed LBAP	A common resident.	Recorded on all survey occasions within the Proposed Solar Areas and the Eastern Biodiversity Mitigation Area. Recorded once in the Western Biodiversity Mitigation Area (March 2024). Birds were typically recorded within wetland features such as Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area and the larger drains within the Proposed Solar Areas, and was rarely recorded within arable fields.
Merlin	<i>Falco columbarius</i>	1	-	-	Red listed Sch1	An uncommon winter visitor and passage migrant; has bred.	A single male bird was recorded on one survey visit (October 2023), flying south through the Proposed Solar Area close to the railway line centrally in the Site.
Meadow Pipit	<i>Anthus pratensis</i>	27	9	18	Amber listed LBAP	A fairly common resident and passage migrant.	Recorded on 5 of 6 surveys within the Site, and 4 of 6 within the Proposed Solar Areas. Birds were typically recorded in small groups (2-9 birds) within arable fields and widespread throughout the Site.
Marsh Harrier	<i>Circus aeruginosus</i>	-	-	2	Amber listed Sch1 LBAP	An uncommon visitor and very rare breeding bird.	A single bird was recorded in the Eastern Biodiversity Mitigation Area during 2 of 6 surveys (November 2023 and January 2024) hunting around the wetland areas, which was considered likely to be the same individual. Not recorded within the Proposed Solar Area or Western Biodiversity Mitigation Area.
Mute Swan	<i>Cygnus olor</i>	65	-	62	Amber listed LBAP	A fairly common resident.	Recorded on all survey occasions within the Eastern Biodiversity Mitigation Area and on 4 of surveys within the Proposed Solar Areas. Birds were typically recorded within wetland features Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area and occasionally within arable fields. Within the Proposed Solar Areas, small numbers of birds (2-10) were recorded on 3 of 6 surveys. During the February 2024 surveys, a flock of 65 birds was present within in an arable field close to the eastern boundary of the Proposed Solar Area.
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	2	Amber listed LBAP	A fairly common passage migrant and uncommon breeding bird.	Recorded on 1 of 6 surveys (March 2024), on the margins of Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area close to the River Trent. Not recorded within the Proposed Solar Area or Western Biodiversity Mitigation Area.
Grey Partridge	<i>Perdix perdix</i>	8	-	2	Red listed LBAP	A fairly common resident.	Recorded on 5 of 6 surveys within the Proposed Solar Areas. Not recorded in the Western or Eastern Biodiversity Mitigation Area. Birds were recorded either individually or in pairs within arable fields or the field margins throughout the Site.

Common name	Scientific name	Peak count by site area			Conservation status*	Species status in Nottinghamshire (Nottinghamshire Birdwatchers, 2023)	Summary or recorded activity at the Site
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area			
Peregrine falcon	<i>Falco peregrinus</i>	2	-	-	Green listed Sch1 LBAP	An uncommon resident.	Recorded on 3 of 6 surveys (November 2023, February and March 2024) within the Proposed Solar Areas only. A pair (male and female) of birds were observed in the same arable field during the February 2024 surveys, but typically individual birds (both male and female) were observed flying over the Site during other survey occasions.
Pochard	<i>Aythya ferina</i>	-	-	5	Red listed LBAP	A fairly common winter visitor and rare breeding bird.	Recorded on 3 of 6 surveys (October 2023, February and March 2024) associated with the lake or flooded grassland in the Eastern Biodiversity Mitigation Area. Single birds recorded in October and February and 5 birds during March.
Reed Bunting	<i>Emberiza schoeniclus</i>	92	6	6	Amber listed LBAP	A fairly common resident.	Recorded on all survey occasions within the Proposed Solar Areas, and 4 of 6 surveys within the Eastern and Western Biodiversity Mitigation Areas. Typically recorded in small groups (2-10 birds) associated with hedgerows, and widespread throughout the Site.
Skylark	<i>Alauda arvensis</i>	106	37	25	Red listed SPI LBAP	A common resident.	Recorded on all survey occasions within the Proposed Solar Area and Western Biodiversity Mitigation Area, and 4 of 6 surveys within the Eastern Biodiversity Mitigation Area. Birds were typically recorded in small groups (2-10 birds) within the arable fields and were widespread throughout the Site. Within the Proposed Solar Area the peak count of 106 was recorded during October 2023; typically, the peak counts were lower and ranged from 30 – 74 birds.
Stonechat	<i>Saxicola rubicola</i>	8	-	4	Green listed LBAP	An uncommon winter visitor and very rare breeding bird.	Recorded on 4 of 6 surveys within the Proposed Solar Area and once (January 2024) within the Eastern Biodiversity Mitigation Area. Birds were recorded individually or in small groups (<4 birds) associated with hedgerows and field margins.
Stock Dove	<i>Columba oenas</i>	34	11	8	Amber listed LBAP	A fairly common resident.	Recorded on 5 of 6 surveys in the Proposed Solar Areas and 3 of 6 surveys in the Eastern Biodiversity Mitigation Area and twice in the Western Biodiversity Mitigation Area.
Short-eared Owl	<i>Asio flammeus</i>	2	-	2	Amber listed LBAP	An uncommon winter resident; has bred.	A pair of short-eared owl were recorded once in the Proposed Solar Area (November 2023), and once in the Eastern Biodiversity Mitigation Area (February 2024) flying over arable fields.
Starling	<i>Sturnus vulgaris</i>	1645	770	1000	Red listed SPI LBAP	A common resident and passage migrant.	Recorded on all survey occasions within the Proposed Solar Areas and most occasions within the Biodiversity Mitigation Areas. Starling was recorded throughout the Site, typically associated with arable fields with typical flock sizes of 40 – 250 birds. Larger flocks were recorded within the larger arable fields centrally in the Proposed Solar Area on several survey occasions with 400 – 700 birds. The mean total count across all surveys within the Proposed Solar Area was 776 birds. During October and November 2023, increased numbers of starling were recorded in the Eastern Biodiversity Mitigation Area with 1000 in October and 1000 in November comprising of a flock of birds associated with arable and grassland fields.
Swift	<i>Apus apus</i>	2	-	-	Red listed LBAP	A common summer visitor.	Two birds were recorded on a single occasion in the Proposed Solar Area during in November 2023.
Snipe	<i>Gallinago gallinago</i>	14	-	21	Amber listed LBAP	A fairly common migrant, winter visitor and very rare breeding bird.	Recorded on all survey occasions in the Proposed Solar Area and 4 of 6 surveys in the Eastern Biodiversity Mitigation Area. Birds were recorded either individually or in pairs within arable and grassland fields or the field margins throughout the Site. During December 2023, a flock of 14 birds was observed flying over the Proposed Solar Area and off-site from west to east.

Common name	Scientific name	Peak count by site area			Conservation status*	Species status in Nottinghamshire (Nottinghamshire Birdwatchers, 2023)	Summary or recorded activity at the Site
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area			
Song Thrush	<i>Turdus philomelos</i>	6	1	1	Amber listed SPI LBAP	A common resident.	Recorded on all survey occasions in the Proposed Solar Area and once (January 2024) in the Eastern and Western Biodiversity Mitigation Areas. Birds were recorded individually at hedgerows within the Site.
Common shelduck	<i>Tadorna tadorna</i>	-	-	2	Amber listed LBAP	A fairly common passage migrant, uncommon breeding bird and winter visitor.	Recorded on 2 of 6 surveys (January and February 2024) with all birds recorded Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area.
Shoveler	<i>Spatula clypeata</i>	-	-	8	Amber listed LBAP	A fairly common winter visitor and rare breeding bird.	Recorded on 2 of 6 surveys (October and December 2023) with all birds recorded on Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area.
Sparrowhawk	<i>Accipiter nisus</i>	4	1	2	Amber listed	A common resident	Recorded on 5 of 6 surveys in the Proposed Solar Areas and on one occasion in each of the Biodiversity Mitigation Areas. Typically individual birds hunting around arable fields, along field boundaries and watercourses.
Teal	<i>Anas crecca</i>	-	-	30	Amber listed LBAP	A common winter visitor and very rare breeding bird.	Recorded during 5 of 6 survey occasions on Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area only. Lower numbers of total birds were recorded during October (2), November (1) and December (8), with none recorded in the Site in January then 30 during February and 10 in March.
Wigeon	<i>Mareca penelope</i>	-	-	300	Amber listed LBAP	A common winter resident and rare breeding bird.	Recorded during all survey occasions on Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area only. The mean total count across all surveys is 154 birds.
Whooper Swan	<i>Cygnus cygnus</i>	4	-	4	Amber listed Sch1 LBAP	An uncommon winter visitor.	Recorded once within the Proposed Solar Area (February 2024) with a group of four birds in an arable field, and once in the Eastern Biodiversity Mitigation Area (March 2024) with four birds adjacent Littleborough Lagoon LWS close to the River Trent.
Yellowhammer	<i>Emberiza citrinella</i>	86	10	21	Red listed SPI LBAP	A fairly common resident and passage migrant.	Recorded on all surveys within each area of the Site. Birds were recorded widespread through the Site, typically in hedgerows either as single birds or small groups (2-10 birds). Rarely recorded in arable fields.

*
 Red / Amber / Green listed = Birds of Conservation Concern (Eaton et al., 2021) Red list = high nature conservation concern; Amber list species = medium conservation concern.
 Sch1 = Listed on Schedule 1 of The Wildlife and Countryside Act 1981 (as amended) LBAP = Nottinghamshire Biodiversity Action Plan Species of Conservation Concern
 SPI = Species of Principal under the provisions of the NERC Act 2006
Bold = indicated species associated with the Humber Estuary Ramsar

Summary interpretation of birds of conservation concern recorded

- 3.7 A total of 86 bird species were recorded at the Site during the wintering bird survey. Of this total, 46 species are of conservation concern (red / amber listed); are identified for conservation action at national level or local level (SPI or Nottinghamshire Biodiversity Action Plan species); or are listed on Schedule 1 of the Wildlife and Countryside Act². Seven of these bird species are also associated with the Humber Estuary Ramsar Site Ramsar.
- 3.8 A total of 68 bird species were recorded within the Proposed Solar Areas, with 42 of the species being red/amber listed, SPI / local BAP status, S.41 status, or of Ramsar site interest.
- 3.9 The Western Biodiversity Mitigation Area had a total count of 51 species with 32 being red/amber listed, SPI / local BAP status, S.41 status, or of Ramsar site interest.
- 3.10 The Eastern Biodiversity Mitigation Area had a total count of 65 species with 42 being red/amber listed, SPI / local BAP status, S.41 status, or of Ramsar site interest.

Species typically associated with open arable and grassland habitats

- 3.11 Wintering bird activity was regularly recorded in the open arable and grassland fields, with a number of species that were regularly recorded and that are red/amber listed, have SPI / local BAP status, S.41 status, or are of Ramsar site interest. Arable fields are the dominant habitat within the Site with occasional pasture fields.
- 3.12 Starling was regularly recorded throughout the Site, typically associated with arable fields with typical flock sizes of 40 – 250 birds. During October and November 2023, increased numbers of starling were recorded in the Eastern Biodiversity Mitigation Area with flocks of approximately 1000 birds in October and November. Larger flocks were recorded within the larger arable fields centrally in the Proposed Solar Area on several survey occasions with 400 – 700 birds. The mean total count across all surveys within the Proposed Solar Area was 776 birds. The flocks were noted to be present during daylight and resting / foraging in the arable stubble fields before flying off-site to roost overnight elsewhere.
- 3.13 Fieldfare and linnet were regularly recorded within arable fields in the Proposed Solar Areas and occasionally in field margins and hedgerows. Linnet were typically recorded within arable fields in varying flock sizes, smaller (5 – 50 birds) to larger (100 – 250 birds). During January 2024 increased numbers of fieldfare were recorded with a total of 1297 birds in the arable stubble fields in the Proposed Solar Areas; most flocks observed during this survey were 50-200 birds, with one flock of 320 birds. Within the Proposed Solar Areas, the mean total count of birds per survey was 237 linnet and 320 fieldfare.
- 3.14 Flocks of skylark and woodpigeon were also regularly recorded within arable stubble fields within the Proposed Solar Areas. Flocks of gull species were typically recorded throughout the Site, including the Proposed Solar Areas, within wetter arable stubble fields where these were, or had recently been, inundated with water.
- 3.15 Lapwing were regularly recorded in the arable stubble and grassland fields in the Eastern Biodiversity Mitigation Area only, particularly where the fields had been flooded and water levels were receding. During the February 2024 surveys, a flock of 65 mute swan was present within in a flooded arable field close to the eastern boundary of the Proposed Solar Area.
- 3.16 Starling, fieldfare, linnet, black-headed gull, lesser black-backed gull, herring gull, skylark, mute swan and woodpigeon are noted to be common wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

² Schedule 1 species are identified for completeness, but as Schedule 1 status is only relevant during the breeding season, it is not of particular concern for most birds during the wintering months.

3.17 Two uncommon wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023) were recorded. Three curlew were recorded on one survey occasion (March) within the open fields in the Eastern Biodiversity Mitigation Area only. A group of four whooper swan were recorded in an arable field once within the Proposed Solar Area (February 2024).

3.18 Based on a review of aerial photography (Google Earth Pro accessed August 2024) there is a large resource of open arable and grassland habitats similar to that at the Site within the local area. It is likely that the species recorded at the Site are present in the surrounding countryside and at similar densities to those found at the Site.

Species typically associated with arable field margins and hedgerows

3.19 Linnet and fieldfare were recorded regularly in hedgerows and field margins, but typically in smaller numbers than some of the flocks present in the arable stubble fields. Yellowhammer and reed bunting were regularly recorded widespread throughout Site, typically in hedgerows either as single birds or small groups (2-10 birds). These species are noted to be common wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

3.20 Stonechat was recorded on 4 of 6 surveys within the Proposed Solar Area and once (January 2024) within the Eastern Biodiversity Mitigation Area. Birds were recorded individually or in small groups (<4 birds) associated with hedgerows and field margins. Stonechat is noted to be an uncommon wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

3.21 Based on a review of aerial photography (Google Earth Pro accessed August 2024) there is a large resource of arable field margins and hedgerows similar to that at the Site within the local area. It is likely that the species recorded at the Site are present in the surrounding countryside and at similar densities to those found at the Site.

Species typically associated with wetland habitats

3.22 Littleborough Lagoon LWS in the Eastern Biodiversity Mitigation Area is a large waterbody adjacent to the River Trent and within the river floodplain. Over the course of the winter the grassland fields adjacent to the lagoon were regularly flooded. There is a network of drains and wet ditches throughout the Site, including in the Proposed Solar Areas. The winter of 2023 / 2024 was noted to be particularly wet, and there were arable fields within the Proposed Solar Areas and Eastern Biodiversity Mitigation Area that were regularly inundated with water, providing temporary wetland habitat.

3.23 The lagoon and adjacent flooded fields in the Eastern Biodiversity Mitigation Area supported a variety of overwintering wildfowl and waterbirds. Wigeon was recorded during all survey occasions on Littleborough Lagoon (only) with a peak count of 300 birds and a mean count of 154 birds per survey. Other water birds were recorded in lower numbers, typically comprising small flocks or individual birds at Littleborough Lagoon including mallard, little egret, oystercatcher, pochard, common shelduck and shoveler. The larger drains including Mother Drain and Catchwater Drain within the Proposed Solar Areas supported lower numbers of wintering birds, typically individual or small groups of mallard and little egret. These species are noted to be common wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

3.24 Mute swan was recorded on all survey occasions within the Eastern Biodiversity Mitigation Area and on four of the surveys within the Proposed Solar Areas. Birds were typically recorded within wetland features such as drains and Littleborough Lagoon. Within the Proposed Solar Areas, small numbers of birds (2-10) were recorded on several surveys. During the February 2024 surveys, a flock of 65 birds was present within in a partially flooded arable field close to the eastern boundary of the Proposed Solar Area. Lapwing were also regularly recorded in the wet or flooded arable and grassland fields in the Eastern Biodiversity Mitigation Area only. Mute swan and lapwing are noted to be common wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

3.25 Whooper swan was recorded once within the Proposed Solar Area (February 2024) with a group of four birds in a partially flooded arable field, and once in the Eastern Biodiversity Mitigation Area

(March 2024) with four birds at Littleborough Lagoon. Whooper swan is noted to be an uncommon wintering species in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).

- 3.26 Waterbodies and wetland habitats that are likely to support wintering birds are widespread in the local area including the River Trent and lakes along the course of the river to the north and south of the Site. Out Ings which is located 600 m to the north of the Eastern Biodiversity Mitigation Area is a wetland mosaic of standing water, wet woodland and grassland that is designated as an LWS. Out Ings was included in the survey area for the 2024 wintering bird surveys and was noted to support similar assemblage of birds to those at Littleborough Lagoon. There are extensive wetland habitats along the River Idle valley around Lound which is approximately 4 km west of the Site, including Sutton and Lound Gravel Pits Site of Special Scientific Interest which is notified on account of its *'exceptionally rich assemblage of breeding wetland birds and a nationally important population of wintering gadwall. The site supports an exceptional diversity of breeding, wintering and passage birds.'*

Birds of prey

- 3.27 A range of bird of prey species were recorded during the wintering bird surveys, mostly within the Eastern Biodiversity Mitigation Area and Proposed Solar Areas.
- 3.28 Small numbers of hen harrier and marsh harrier were recorded within the Site. An individual young female hen harrier was recorded hunting within the Site during four of six wintering bird surveys, three times within the Proposed Solar Areas and once in the Eastern Biodiversity Mitigation Area. Typically, the hen harrier was hunting along the drains within the Proposed Solar Areas or habitats near to the River Trent within the Eastern Biodiversity Mitigation Area. Marsh harrier was recorded in the Eastern Biodiversity Mitigation Area hunting other birds around the wetland areas. Both species are uncommon winter visitors in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).
- 3.29 Individual short-eared owl and merlin were recorded hunting in the Proposed Solar Areas on one survey occasion only. Up to two peregrine falcon were recorded hunting in the Proposed Solar Areas on several occasions, and small numbers of sparrowhawk were recorded on most survey occasions throughout the Site. These species were hunting other birds typically within arable fields, along field boundaries and watercourses. Short-eared owl, merlin and peregrine falcon are uncommon resident or winter visitors and sparrowhawk is a common resident in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).
- 3.30 Barn owl and kestrel were regularly recorded hunting for small mammals in the grassland margins along arable fields and watercourses throughout the Site. Barn owl is an uncommon resident and kestrel is a fairly common resident in Nottinghamshire (Nottinghamshire Birdwatchers, 2023).
- 3.31 Hen harrier, marsh harrier, peregrine, merlin, short-eared owl and sparrowhawk were considered likely to be exploiting the presence of flocks of overwintering birds within the Site for hunting purposes, particularly the wetland habitats in the Eastern Biodiversity Mitigation Area. It is likely that they use the habitats at the Site as part of network of similar habitats that are used by overwintering birds within the local area, particularly along the River Trent corridor where there are further waterbodies and areas that are likely flood through the winter. Barn owl and kestrel are also likely to use other grassland habitats in the local area, which are well-represented along field boundaries and watercourses.

Overall summary

- 3.32 Wintering bird activity was widespread across the Site, with main habitat types used including:
- Open habitats, such as arable and grassland pasture fields. These habitats are widespread across the Site and locally, and were used by species such as skylark, starling, meadow pipit, woodpigeon and gull species.
 - Scrub, trees, woodland, hedgerows and associated grassland margins. These habitats are widespread across the Site and locally and are used by species such as fieldfare, redwing, linnet, barn owl and yellowhammer.

- Waterbodies, ditches, inundated arable and grassland fields. These habitats are primarily within the Eastern Biodiversity Mitigation Area and supported a greater diversity of wetland birds and waders such as wigeon, greylag goose, lapwing, gull species, swan species and duck species, particularly Littleborough Lagoons LWS.

3.33 The Site is considered to support a typical wintering bird assemblage for the habitats present and the Site's geographic location. The areas of the Site closer to the River Trent, particularly the wetland and adjacent farmland habitats in the Eastern Biodiversity Mitigation Area, supported a greater species diversity and higher numbers of birds, typically waders and waterbirds but also birds of prey hunting. Most of the bird species of conservation concern recorded within the Site are common and well-represented species throughout the county. Those that are less common, such as merlin, hen harrier, marsh harrier, short-eared owl, peregrine, curlew, and whooper swan, were recorded in low numbers and / or infrequently during the surveys. Larger numbers of starling and fieldfare were recorded throughout the Site and across most surveys; it is likely that the Site provides a good foraging resource for these species locally.

4 References

Bird Survey & Assessment Steering Group. (2023). 'Bird Survey Guidelines for assessing ecological impacts, v.1.1.1'. Available at <https://birdsurveyguidelines.org>

Eaton, M.A., et al. (2021). 'The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain'. *British Birds* 114: 723-747

ESL Ltd. (2010). 'Ecological Baseline Update Survey, Sturton-Le-Steeple, Nottinghamshire'.

Gilbert, G., Gibbons, D.W. & Evans, J. (1998). 'Bird Monitoring Methods'. RSPB.

Nottinghamshire Birdwatchers. (2023). 'The Birds of Nottinghamshire Annual Report for 2020'. Nottinghamshire Birdwatchers

5 Appendices

Appendix 7F.1: Wintering bird survey dates and weather conditions

Date	Cloud Cover (Oktas)	Precipitation	Wind (Beaufort)	Visibility
23.10.23	8	None	1	Misty morning then excellent
24.10.23	8	Showers	3	Fair
25.10.23	3	None	2	Excellent
26.10.23	3	Light drizzle	2	Fair
27.10.23	3	Showers	2	Mist early morning
20.11.23	4	None	1	Excellent
21.11.23	8	Occasional light rain	3	Excellent
22.11.23	8	None	1	Excellent
23.11.23	7	None	3	Excellent
24.11.23	5	None	2	Excellent
11.12.23	2	None	2	Excellent
12.12.23	8	None	2	Fair
13.12.23	8	Occasional heavy showers	3	Misty morning then excellent
14.12.23	4	None	2	Excellent
15.12.23	4	None	2	Excellent
08.01.24	8	None	2	Excellent
09.01.24	6	None	2	Excellent
10.01.24	7	None	2	Excellent
11.01.24	8	Light rain	2	Excellent
12.01.24	8	Light drizzle	2	Excellent
05.02.24	5	None	3	Excellent
06.02.24	8	Light rain	4	Excellent
07.02.24	2	None	2	Excellent
08.02.24	8	Snow showers	3	Poor
09.02.24	4	light rain	3	Fair
04.03.24	8	None	3	Excellent
05.03.24	7	None	2	Excellent
06.03.24	8	None	2	Excellent
07.03.24	8	None	2	Fair
08.03.24	8	None	3	Fair

Appendix 7F.2: Full results of wintering bird surveys October 2023 to March 2024

Common name	Scientific name	October 2023			November 2023			December 2023			January 2024			February 2024			March 2024			Conservation status*
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	
Blackbird	<i>Turdus merula</i>	23	4	5	33	1	6	70	3	9	39	4	10	25	6	12	10	5	5	Green listed
Bullfinch	<i>Pyrrhula pyrrhula</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	Amber listed SPI LBAP
Blackheaded Gull	<i>Chroicocephalus ridibundus</i>	177	-	-	75	17	-	188	-	-	154	-	-	24	-	80	31	4	130	Amber listed LBAP
Brambling	<i>Fringilla montifringilla</i>	-	-	-	-	-	-	-	-	-	5	-	-	15	-	-	6	-	-	Green listed
Barn Owl	<i>Tyto alba</i>	-	-	-	-	-	-	-	-	-	-	-	-	3	-	2	2	-	2	Green listed Sch1 LBAP
Blue Tit	<i>Cyanistes caeruleus</i>	7	1	-	-	-	-	10	4	-	9	2	4	10	2	2	3	2	5	Green listed
Buzzard	<i>Buteo buteo</i>	6	-	1	6	-	2	8	1	2	3	2	2	4	2	1	8	4	1	Green listed
Carrion Crow	<i>Corvus corone</i>	-	-	-	70	-	7	81	20	-	40	6	-	24	-	-	35	16	-	Green listed
Cormorant	<i>Phalacrocorax carbo</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	Green listed LBAP
Chiffchaff	<i>Phylloscopus collybita</i>	-	-	-	-	-	-	-	-	-	-	-	-	1	-	10	-	-	-	Green listed
Collared Dove	<i>Streptopelia decaocto</i>	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	Green listed
Canada Goose	<i>Branta canadensis</i>	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Green listed
Chaffinch	<i>Fringilla coelebs</i>	43	10	11	17	-	-	36	-	-	27	-	4	76	-	-	57	-	2	Green listed
Common Gull	<i>Larus canus</i>	14	-	-	9	-	-	456	-	-	87	-	-	-	-	-	21	-	-	Amber listed
Coot	<i>Fulica atra</i>	-	-	-	-	-	-	-	-	5	-	-	-	-	-	5	-	-	1	Green listed LBAP
Coal Tit	<i>Periparus ater</i>	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Green listed
Curlew	<i>Numenius arquata</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	Red listed SPI LBAP
Dunnock	<i>Prunella modularis</i>	2	2	-	3	1	2	5	-	2	5	-	2	5	-	-	9	3	2	Amber listed SPI LBAP
Dunlin	<i>Calidris alpina</i>	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	-	-	Red listed
Egyptian Goose	<i>Alopochen aegyptiaca</i>	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	Green listed
Little Egret	<i>Egretta garzetta</i>	5	-	-	1	-	-	-	-	1	3	-	-	4	-	7	-	-	8	Green listed LBAP
Fieldfare	<i>Turdus pilaris</i>	110	160	-	310	-	100	65	-	80	1297	70	50	335	26	-	187	12	30	Red listed Sch1
Green Woodpecker	<i>Picus viridis</i>	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	-	1	Green listed
Gadwall	<i>Mareca strepera</i>	-	-	-	-	-	1	-	-	12	-	-	-	-	-	9	-	-	9	Amber listed LBAP

Common name	Scientific name	October 2023			November 2023			December 2023			January 2024			February 2024			March 2024			Conservation status*
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	
Great Blackbacked Gull	<i>Larus marinus</i>	-	-	-	-	-	-	2	-	-	3	-	-	-	-	-	-	-	-	Amber listed
Goldcrest	<i>Regulus regulus</i>	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	Green listed
Greylag Goose	<i>Anser anser</i>	8	-	-	15	-	42	11	-	-	9	-	-	7	-	11	7	-	7	Amber listed
Goldfinch	<i>Carduelis carduelis</i>	46	-	7	39	-	3	117	7	8	38	-	6	15	-	-	80	-	-	Green listed
Greenfinch	<i>Chloris chloris</i>	4	-	-	1	-	-	12	-	-	17	-	-	12	3	-	8	-	-	Red listed
Great Spotted Woodpecker	<i>Dendrocopos major</i>	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	Green listed
Great Tit	<i>Parus major</i>	3	-	2	-	-	-	5	6	-	2	-	-	11	-	2	4	2	4	Green listed
Garden Warbler	<i>Sylvia borin</i>	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Green listed
Grey Heron	<i>Ardea cinerea</i>	2	-	4	4	-	-	3	-	1	-	-	1	2	-	2	1	-	2	Green listed LBAP
Herring Gull	<i>Larus argentatus</i>	15	-	-	3	-	-	14	-	-	5	-	-	-	-	-	2	-	-	Red listed
Hen Harrier	<i>Circus cyaneus</i>	-	-	1	1	-	-	1	-	-	-	-	1	-	-	-	-	-	-	Red listed Sch1 SPI LBAP
House Sparrow	<i>Passer domesticus</i>	-	8	-	-	7	-	3	8	-	-	7	-	4	-	-	-	4	-	Red listed SPI LBAP
Great White Egret	<i>Ardea alba</i>	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Amber listed
Jay	<i>Garrulus glandarius</i>	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	2	-	-	Green listed
Jackdaw	<i>Coloeus monedula</i>	-	-	-	22	-	-	76	-	-	-	-	-	35	-	-	36	-	-	Green listed
Kestrel	<i>Falco tinnunculus</i>	5	2	3	5	2	4	7	3	2	6	1	-	9	1	2	4	1	3	Amber listed LBAP
Lapwing	<i>Vanellus vanellus</i>	-	-	80	-	-	43	-	-	-	-	-	150	-	-	-	-	-	24	Red listed SPI LBAP
Lesser Blackbacked Gull	<i>Larus fuscus</i>	30	-	-	23	-	-	6	-	-	2	-	-	-	-	-	-	3	-	Amber listed LBAP
Little Grebe	<i>Tachybaptus ruficollis</i>	-	-	1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	2	Green listed
Linnet	<i>Linaria cannabina</i>	155	-	10	37	-	-	326	-	385	332	-	-	290	-	25	283	-	-	Red listed SPI LBAP
Little Owl	<i>Athene noctua</i>	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	Green listed
Longtailed Tit	<i>Aegithalos caudatus</i>	12	-	7	-	8	8	-	-	-	-	-	11	9	-	-	14	1	-	Green listed
Mistle Thrush	<i>Turdus viscivorus</i>	3	-	1	-	-	3	-	2	-	1	-	-	2	-	-	2	-	2	Red listed LBAP
Mallard	<i>Anas platyrhynchos</i>	5	-	7	8	-	8	3	-	5	2	-	12	2	-	28	18	2	16	Red listed LBAP
Magpie	<i>Pica pica</i>	2	-	2	-	-	-	14	2	-	-	-	-	3	-	-	8	-	-	Green listed
Moorhen	<i>Gallinula chloropus</i>	-	-	2	6	-	2	-	-	-	2	-	-	-	-	3	-	-	2	Amber listed

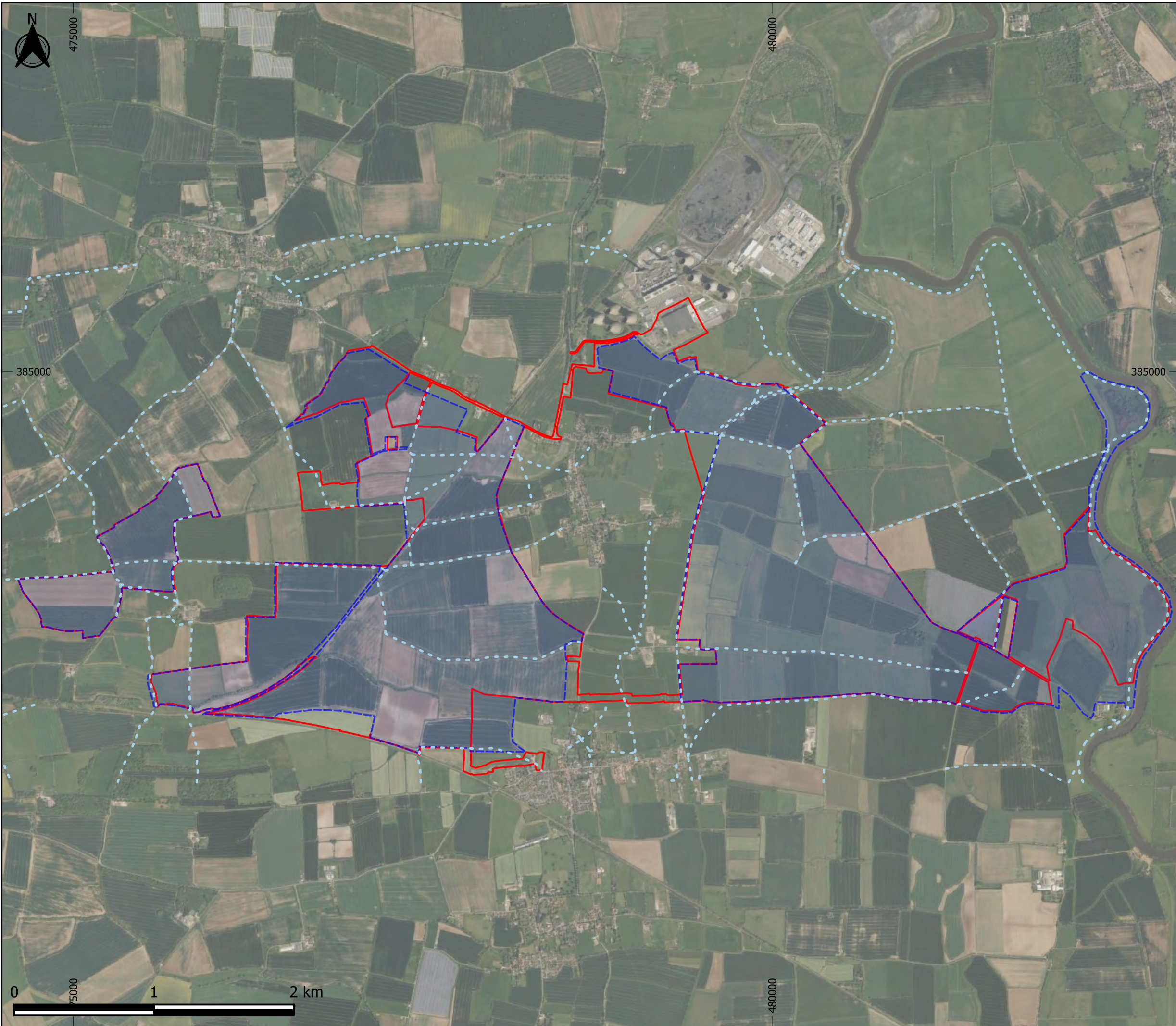
Common name	Scientific name	October 2023			November 2023			December 2023			January 2024			February 2024			March 2024			Conservation status*
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	
Merlin	<i>Falco columbarius</i>	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Red listed Sch1	
Meadow Pipit	<i>Anthus pratensis</i>	27	9	-	-	-	19	6	-	12	-	18	5	-	-	-	-	9	Amber listed LBAP	
Marsh Harrier	<i>Circus aeruginosus</i>	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	Amber listed Sch1 LBAP	
Mute Swan	<i>Cygnus olor</i>	2	-	9	-	-	2	-	13	-	-	15	65	-	62	10	-	44	Green listed LBAP	
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	Amber listed LBAP	
Grey Partridge	<i>Perdix perdix</i>	2	-	-	4	-	2	-	-	-	-	-	8	-	-	8	-	-	Red listed LBAP	
Peregrine falcon	<i>Falco peregrinus</i>	-	-	-	2	-	-	-	-	-	-	-	2	-	-	1	-	-	Green listed Sch1 LBAP	
Pinkfooted Goose	<i>Anser brachyrhynchus</i>	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Amber listed	
Pheasant	<i>Phasianus colchicus</i>	27	11	7	30	5	-	34	9	19	12	3	-	-	-	6	3	-	Green listed	
Pochard	<i>Aythya ferina</i>	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	5	Red listed LBAP	
Pied Wagtail	<i>Motacilla alba</i>	57	-	17	2	2	2	79	-	-	22	-	-	12	3	-	18	2	-	Green listed
Robin	<i>Erithacus rubecula</i>	5	-	1	23	1	2	13	-	-	4	3	-	9	-	3	12	3	2	Green listed
Reed Bunting	<i>Emberiza schoeniclus</i>	21	2	-	11	2	-	47	3	13	35	-	6	16	-	2	92	6	3	Amber listed LBAP
Redwing	<i>Turdus iliacus</i>	23	-	-	62	-	-	10	-	20	57	20	7	62	11	-	77	-	-	Amber listed
Redlegged Partridge	<i>Alectoris rufa</i>	95	14	15	87	9	-	46	-	3	45	4	4	40	1	5	13	3	-	Green listed
Rook	<i>Corvus frugilegus</i>	25	-	-	28	7	4	21	15	-	28	4	-	26	13	32	80	8	-	Green listed
Reed Warbler	<i>Acrocephalus scirpaceus</i>	-	-	-	-	-	-	-	-	-	42	-	2	-	-	-	-	-	-	Green listed
Skylark	<i>Alauda arvensis</i>	106	37	12	41	2	5	38	2	2	30	11	-	74	15	5	42	20	25	Red listed SPI LBAP
Stonechat	<i>Saxicola rubicola</i>	6	-	-	2	-	-	-	-	-	8	-	4	2	-	2	-	-	-	Green listed LBAP
Stock Dove	<i>Columba oenas</i>	-	-	2	15	11	6	14	-	8	31	-	5	17	-	-	34	7	-	Amber listed LBAP
Shorteared Owl	<i>Asio flammeus</i>	-	-	-	2	-	-	-	-	-	-	-	-	-	-	2	-	-	-	Amber listed LBAP
Sparrowhawk	<i>Accipiter nisus</i>	2	1	-	1	-	2	-	-	-	1	-	-	3	-	-	4	-	-	Amber listed
Starling	<i>Sturnus vulgaris</i>	770	770	1000	1645	48	1000	688	160	500	240	35	-	1168	-	-	145	35	43	Red listed SPI LBAP
Swift	<i>Apus apus</i>	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Red listed LBAP
Snipe	<i>Gallinago gallinago</i>	4	-	-	10	-	4	14	-	-	8	-	21	2	-	10	4	-	1	Amber listed LBAP
Song Thrush	<i>Turdus philomelos</i>	1	-	-	1	-	-	1	-	-	1	1	1	6	-	-	6	-	-	Amber listed SPI LBAP

Common name	Scientific name	October 2023			November 2023			December 2023			January 2024			February 2024			March 2024			Conservation status*
		Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	Proposed Solar Area	Western Biodiversity Mitigation Area	Eastern Biodiversity Mitigation Area	
Shelduck	<i>Tadorna tadorna</i>	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	-	-	-	Amber listed LBAP
Shoveler	<i>Spatula clypeata</i>	-	-	6	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	Amber listed LBAP
Teal	<i>Anas crecca</i>	-	-	2	-	-	1	-	-	8	-	-	-	-	-	30	-	-	10	Amber listed LBAP
Tufted Duck	<i>Aythya fuligula</i>	-	-	-	-	-	-	-	-	6	-	-	1	-	-	27	-	-	53	Green listed
Wigeon	<i>Mareca penelope</i>	-	-	21	-	-	184	-	-	300	-	-	57	-	-	184	-	-	178	Amber listed LBAP
Woodpigeon	<i>Columba palumbus</i>	315	-	48	353	72	20	525	80	145	305	50	-	160	-	-	246	34	-	Amber listed
Wren	<i>Troglodytes troglodytes</i>	5	1	-	9	1	-	3	-	-	2	1	1	8	-	2	9	1	2	Amber listed
Whooper Swan	<i>Cygnus cygnus</i>	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	Amber listed Sch1 LBAP
Yellowhammer	<i>Emberiza citrinella</i>	69	6	10	12	4	2	72	10	18	49	4	4	43	2	21	86	5	13	Red listed SPI LBAP

*
 Red / Amber / Green listed= Birds of Conservation Concern (Eaton et al., 2021) listing assesses bird species on the basis of their population status, reflecting changes in their abundance and range. Red list species are of high nature conservation concern; Amber list species are of medium conservation concern.
 Sch1 = Listed on Schedule 1 of The Wildlife and Countryside Act 1981 (as amended)
 LBAP = Nottinghamshire Biodiversity Action Plan Species
 SPI = Species of Principal under the provisions of the NERC Act 2006
Bold = indicated species associated with the Humber Estuary Ramsar Site

6 Figures

(overleaf)



- Legend
- Site boundary
 - Wintering bird characterisation 2023-24 survey boundary
 - Areas surveyed from PRoW only
 - Public Right of Way (PRoW)

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Figure 7.6.1: Survey area of the 2023-24 wintering bird surveys

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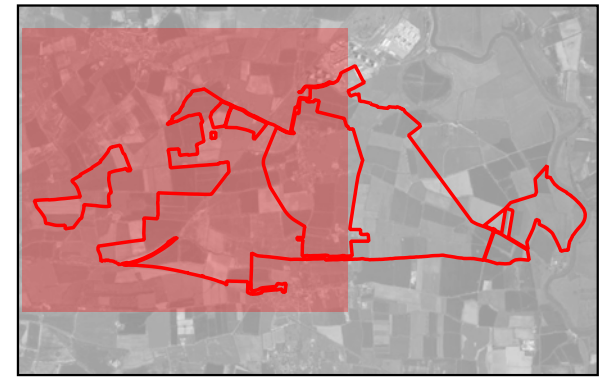
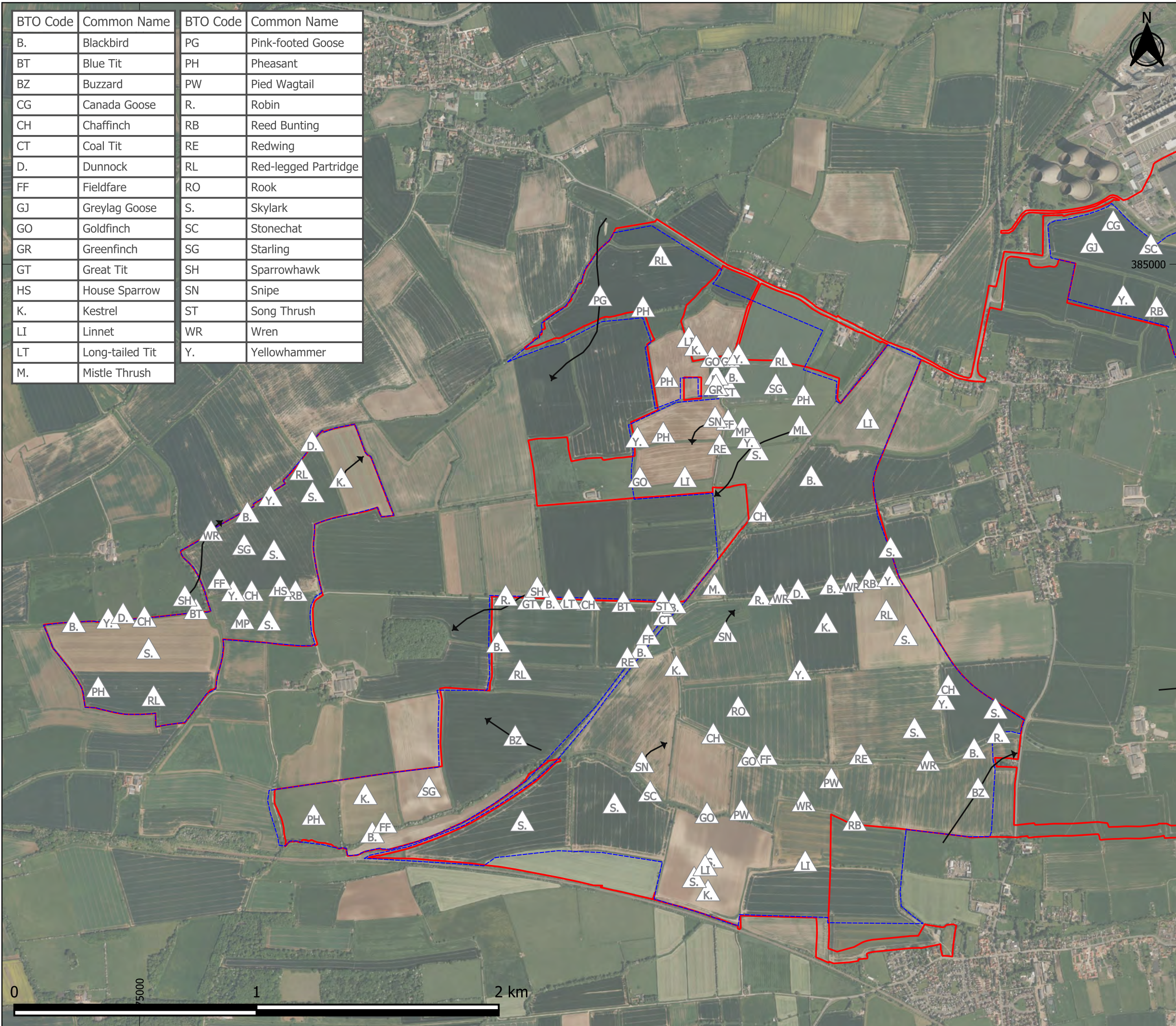
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Sources: BSG Ecology survey data

Graphics Ref. No.: 06197

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	PG	Pink-footed Goose
BT	Blue Tit	PH	Pheasant
BZ	Buzzard	PW	Pied Wagtail
CG	Canada Goose	R.	Robin
CH	Chaffinch	RB	Reed Bunting
CT	Coal Tit	RE	Redwing
D.	Dunnock	RL	Red-legged Partridge
FF	Fieldfare	RO	Rook
GJ	Greylag Goose	S.	Skylark
GO	Goldfinch	SC	Stonechat
GR	Greenfinch	SG	Starling
GT	Great Tit	SH	Sparrowhawk
HS	House Sparrow	SN	Snipe
K.	Kestrel	ST	Song Thrush
LI	Linnet	WR	Wren
LT	Long-tailed Tit	Y.	Yellowhammer
M.	Mistle Thrush		

- Legend
- Site boundary
 - Flying
 - Survey boundary
 - Visit 1 - non-breeding



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DRAWING TITLE
Figure 7.6.2.1: Wintering Bird Survey Results - October (West)

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DRAWN: SP APPROVED: DF VERSION: 1.3

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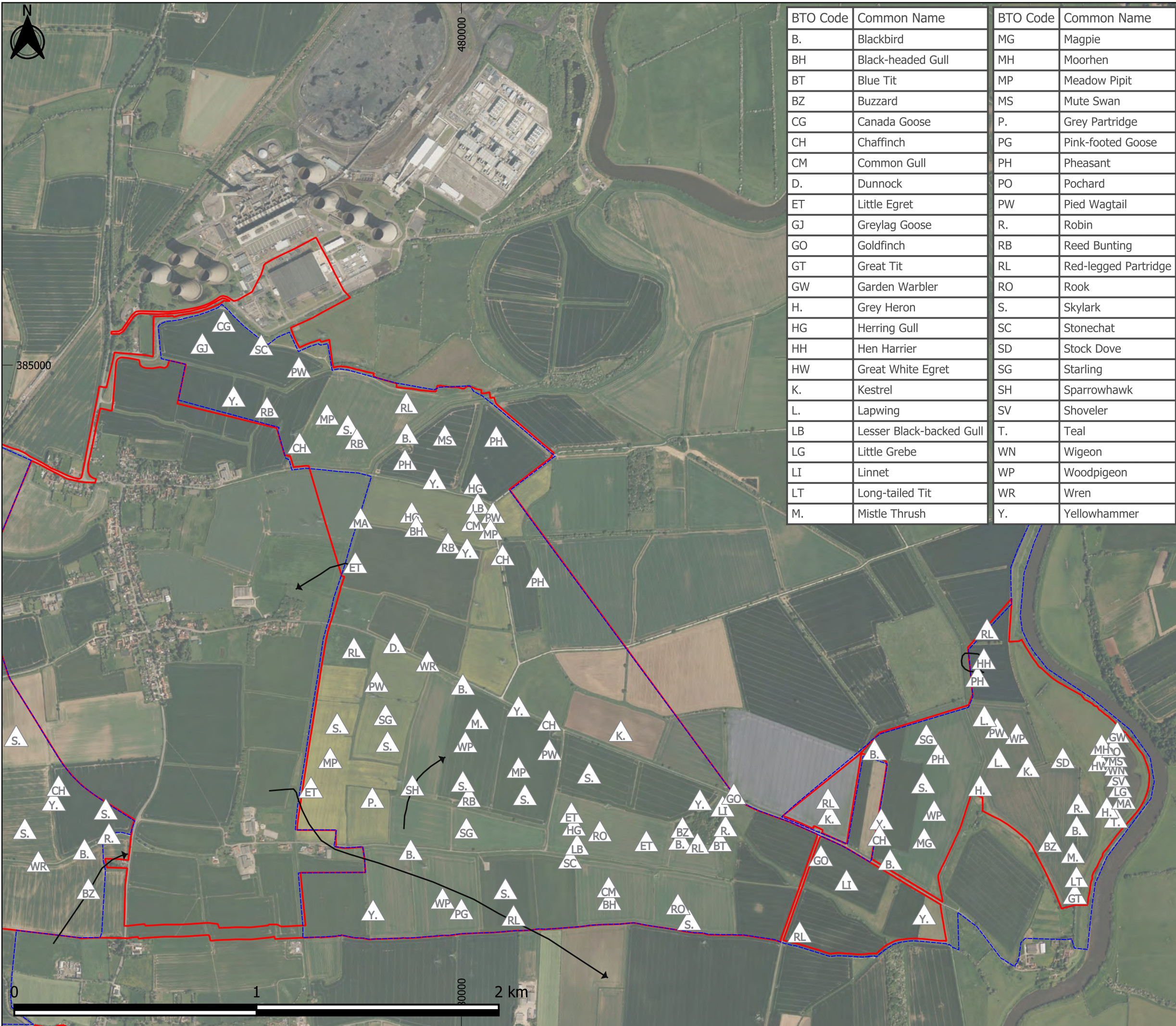
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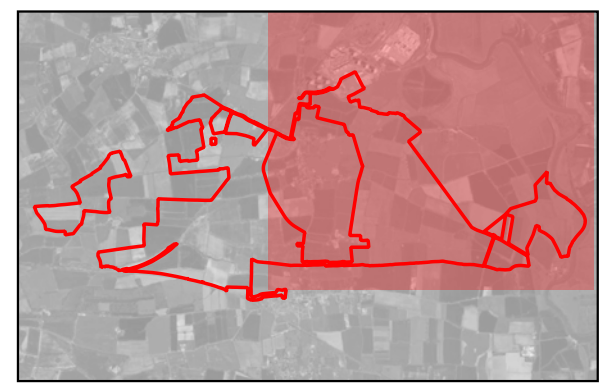
Sources: BSG Ecology survey data

Graphics Ref. No.: 05580



BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MG	Magpie
BH	Black-headed Gull	MH	Moorhen
BT	Blue Tit	MP	Meadow Pipit
BZ	Buzzard	MS	Mute Swan
CG	Canada Goose	P.	Grey Partridge
CH	Chaffinch	PG	Pink-footed Goose
CM	Common Gull	PH	Pheasant
D.	Dunnock	PO	Pochard
ET	Little Egret	PW	Pied Wagtail
GJ	Greylag Goose	R.	Robin
GO	Goldfinch	RB	Reed Bunting
GT	Great Tit	RL	Red-legged Partridge
GW	Garden Warbler	RO	Rook
H.	Grey Heron	S.	Skylark
HG	Herring Gull	SC	Stonechat
HH	Hen Harrier	SD	Stock Dove
HW	Great White Egret	SG	Starling
K.	Kestrel	SH	Sparrowhawk
L.	Lapwing	SV	Showeler
LB	Lesser Black-backed Gull	T.	Teal
LG	Little Grebe	WN	Wigeon
LI	Linnet	WP	Woodpigeon
LT	Long-tailed Tit	WR	Wren
M.	Mistle Thrush	Y.	Yellowhammer

- Legend
- Site boundary
 - Flying
 - Survey boundary
 - Visit 1 - non-breeding



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DRAWING TITLE
Figure 7.6.2.2: Wintering Bird Survey Results - October (East)

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DRAWN: SP APPROVED: DF VERSION: 1.3

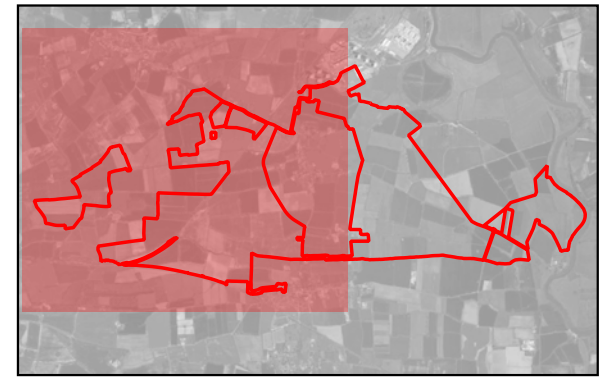
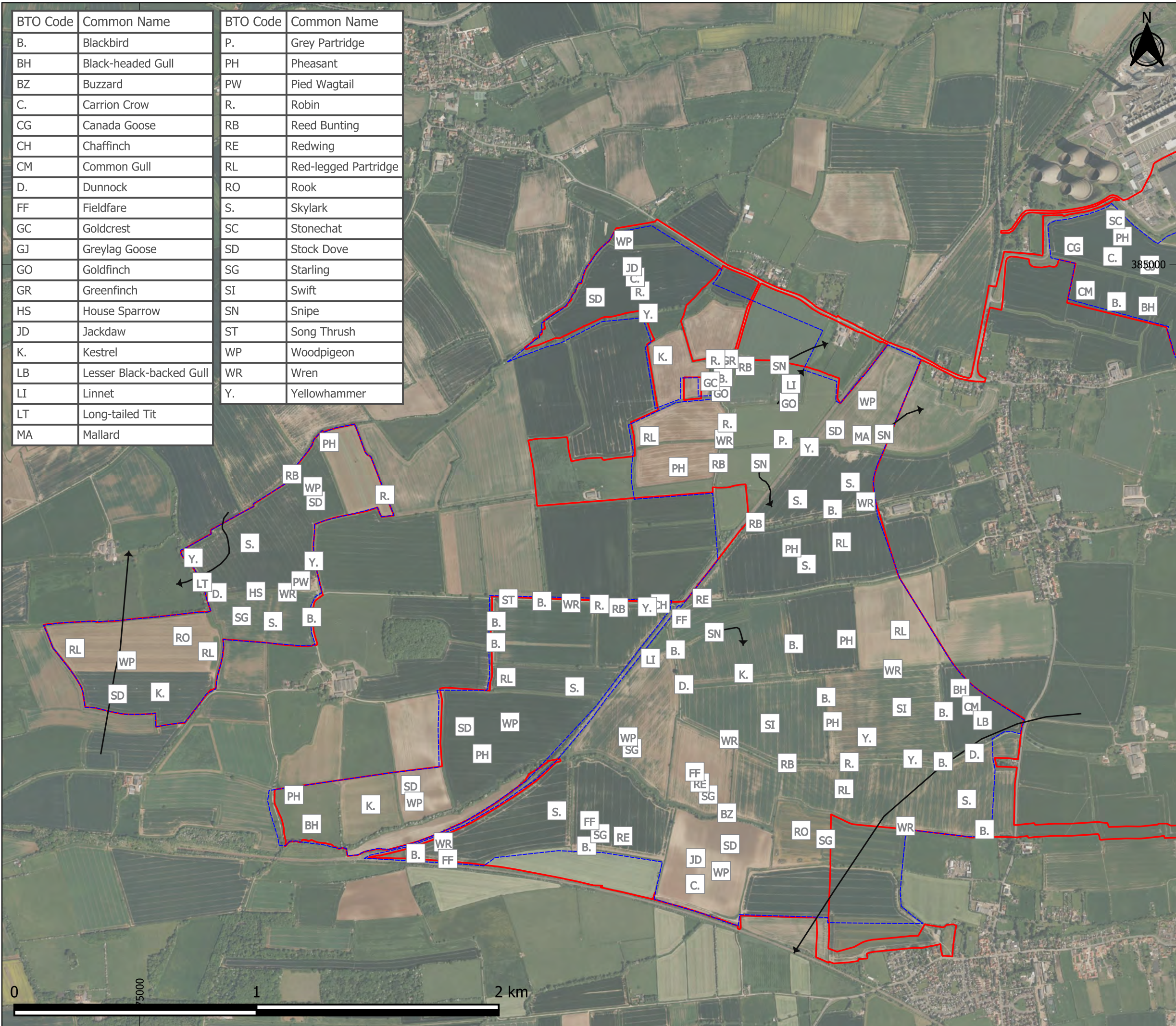
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Graphics Ref. No.: 05581

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	P.	Grey Partridge
BH	Black-headed Gull	PH	Pheasant
BZ	Buzzard	PW	Pied Wagtail
C.	Carrion Crow	R.	Robin
CG	Canada Goose	RB	Reed Bunting
CH	Chaffinch	RE	Redwing
CM	Common Gull	RL	Red-legged Partridge
D.	Dunnock	RO	Rook
FF	Fieldfare	S.	Skylark
GC	Goldcrest	SC	Stonechat
GJ	Greylag Goose	SD	Stock Dove
GO	Goldfinch	SG	Starling
GR	Greenfinch	SI	Swift
HS	House Sparrow	SN	Snipe
JD	Jackdaw	ST	Song Thrush
K.	Kestrel	WP	Woodpigeon
LB	Lesser Black-backed Gull	WR	Wren
LI	Linnet	Y.	Yellowhammer
LT	Long-tailed Tit		
MA	Mallard		

Legend

- Site boundary
- Survey boundary
- Flying
- Visit 2 - non-breeding



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Figure 7.6.3.1: Wintering Bird Survey Results - November (West)

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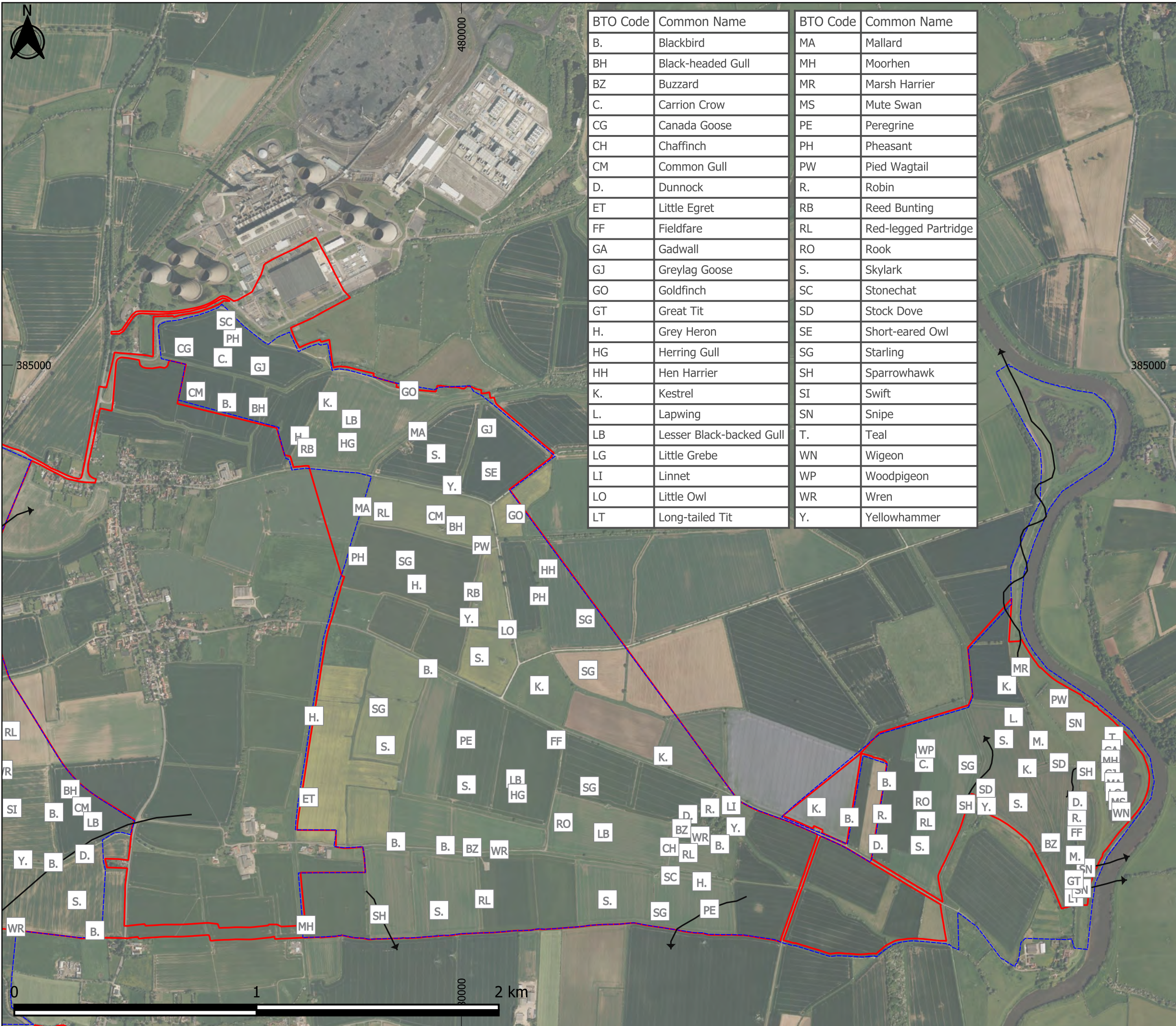
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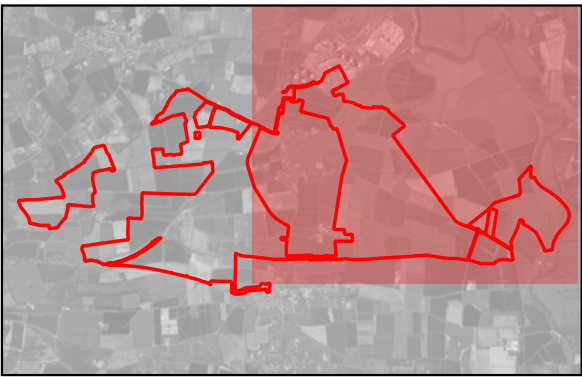
Sources: BSG Ecology survey data

Graphics Ref. No.: 05582



BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MA	Mallard
BH	Black-headed Gull	MH	Moorhen
BZ	Buzzard	MR	Marsh Harrier
C.	Carrion Crow	MS	Mute Swan
CG	Canada Goose	PE	Peregrine
CH	Chaffinch	PH	Pheasant
CM	Common Gull	PW	Pied Wagtail
D.	Dunnock	R.	Robin
ET	Little Egret	RB	Reed Bunting
FF	Fieldfare	RL	Red-legged Partridge
GA	Gadwall	RO	Rook
GJ	Greylag Goose	S.	Skylark
GO	Goldfinch	SC	Stonechat
GT	Great Tit	SD	Stock Dove
H.	Grey Heron	SE	Short-eared Owl
HG	Herring Gull	SG	Starling
HH	Hen Harrier	SH	Sparrowhawk
K.	Kestrel	SI	Swift
L.	Lapwing	SN	Snipe
LB	Lesser Black-backed Gull	T.	Teal
LG	Little Grebe	WN	Wigeon
LI	Linnet	WP	Woodpigeon
LO	Little Owl	WR	Wren
LT	Long-tailed Tit	Y.	Yellowhammer

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 2 - non-breeding



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Figure 7.6.3.2: Wintering Bird Survey Results - November (East)

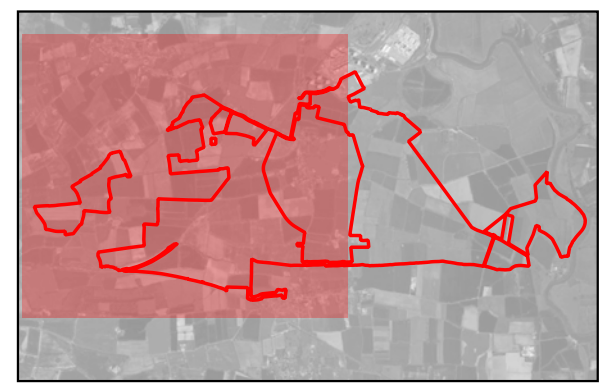
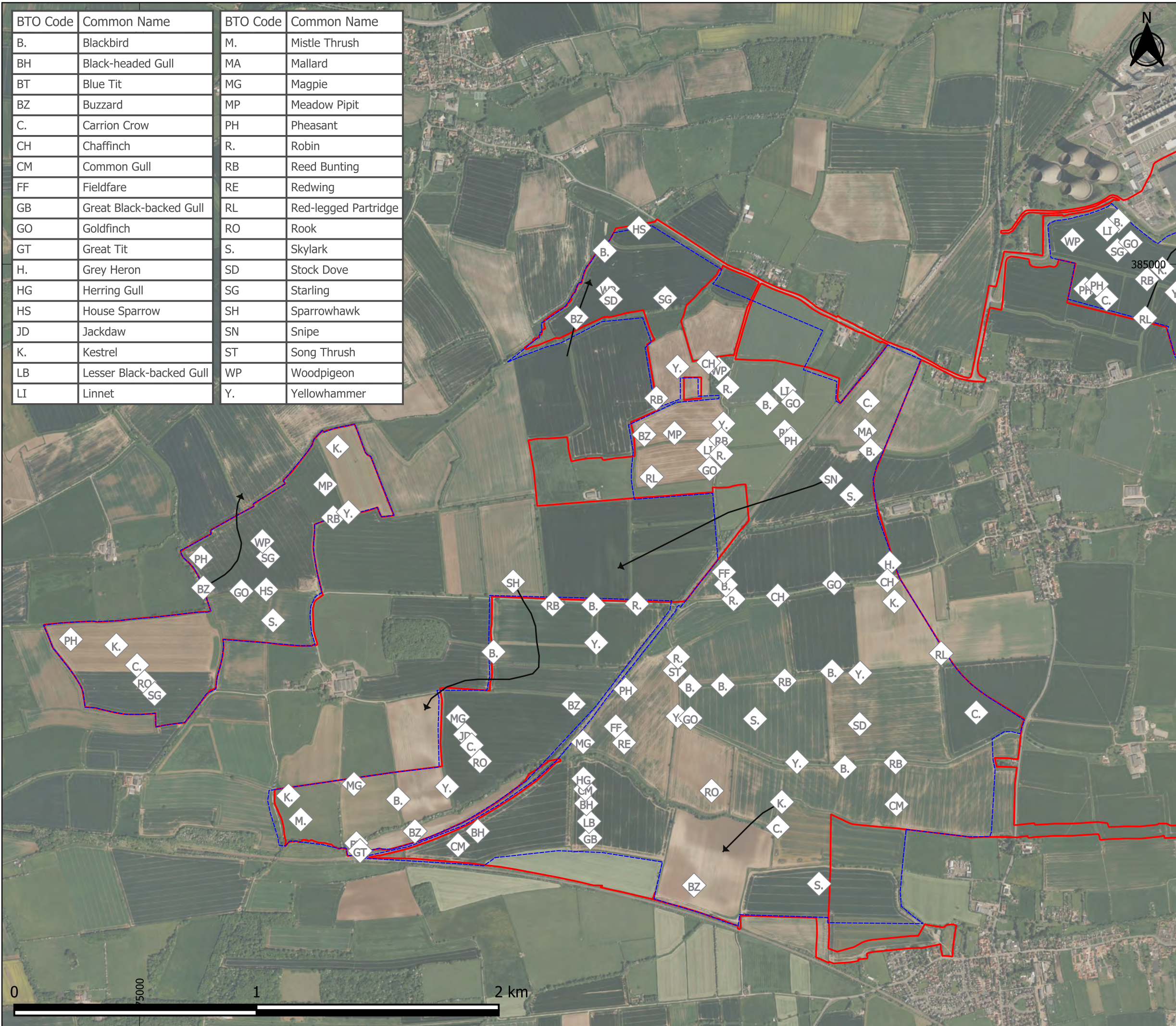
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Graphics Ref. No.: 05583

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	M.	Mistle Thrush
BH	Black-headed Gull	MA	Mallard
BT	Blue Tit	MG	Magpie
BZ	Buzzard	MP	Meadow Pipit
C.	Carrion Crow	PH	Pheasant
CH	Chaffinch	R.	Robin
CM	Common Gull	RB	Reed Bunting
FF	Fieldfare	RE	Redwing
GB	Great Black-backed Gull	RL	Red-legged Partridge
GO	Goldfinch	RO	Rook
GT	Great Tit	S.	Skylark
H.	Grey Heron	SD	Stock Dove
HG	Herring Gull	SG	Starling
HS	House Sparrow	SH	Sparrowhawk
JD	Jackdaw	SN	Snipe
K.	Kestrel	ST	Song Thrush
LB	Lesser Black-backed Gull	WP	Woodpigeon
LI	Linnet	Y.	Yellowhammer

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 3 - non-breeding



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Figure 7.6.4.1: Wintering Bird Survey Results - December (West)

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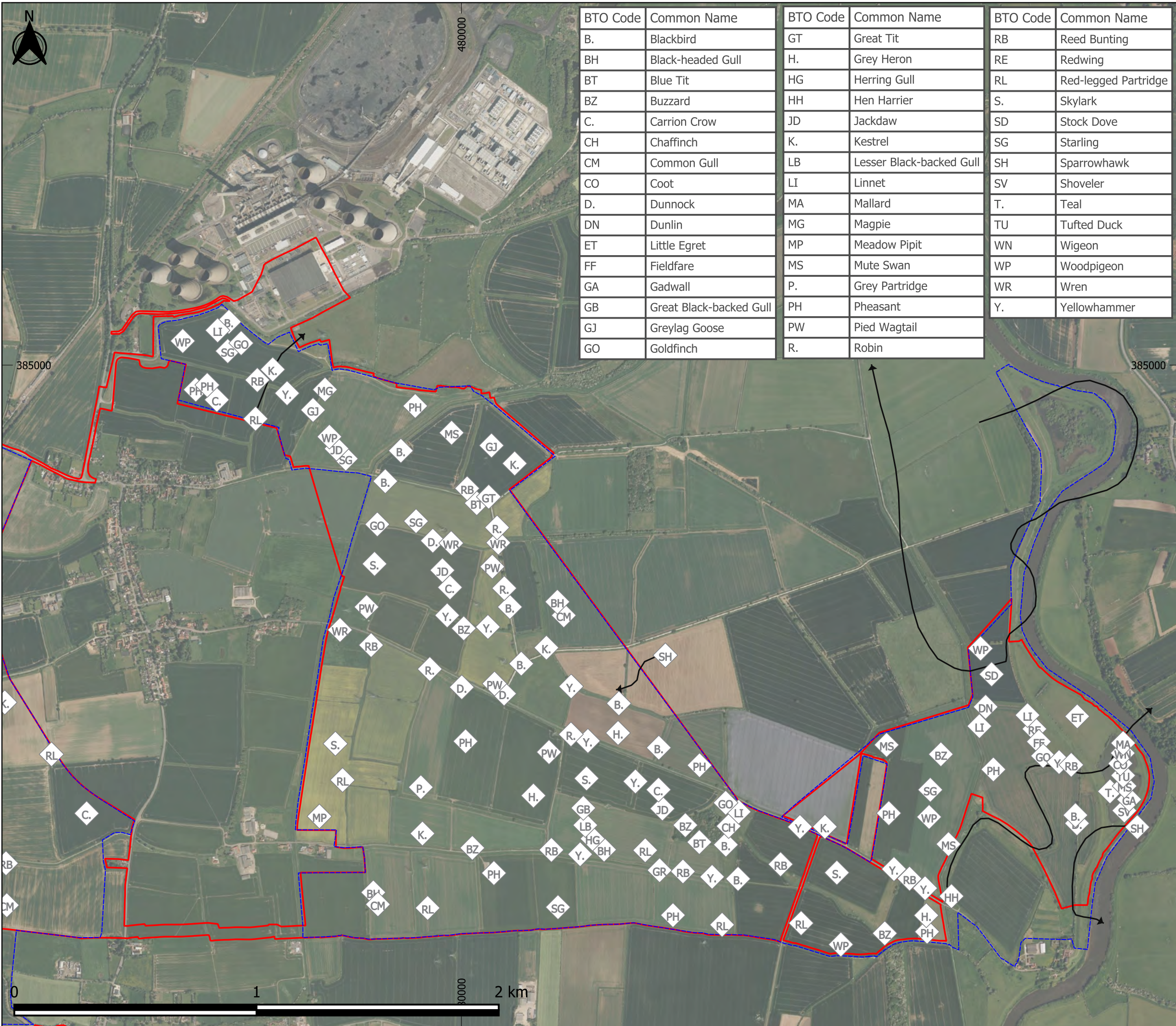
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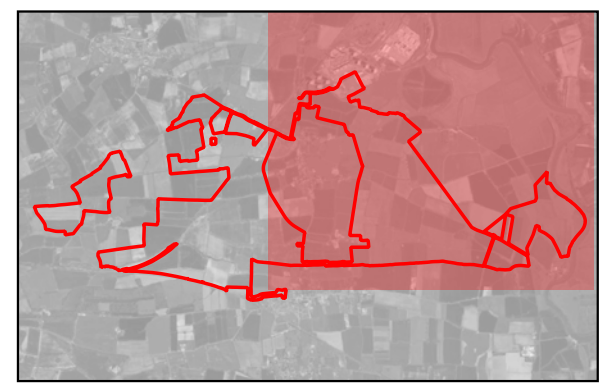
Sources: BSG Ecology survey data

Graphics Ref. No.: 05584



BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	GT	Great Tit	RB	Reed Bunting
BH	Black-headed Gull	H.	Grey Heron	RE	Redwing
BT	Blue Tit	HG	Herring Gull	RL	Red-legged Partridge
BZ	Buzzard	HH	Hen Harrier	S.	Skylark
C.	Carrion Crow	JD	Jackdaw	SD	Stock Dove
CH	Chaffinch	K.	Kestrel	SG	Starling
CM	Common Gull	LB	Lesser Black-backed Gull	SH	Sparrowhawk
CO	Coot	LI	Linnet	SV	Shoveler
D.	Dunnock	MA	Mallard	T.	Teal
DN	Dunlin	MG	Magpie	TU	Tufted Duck
ET	Little Egret	MP	Meadow Pipit	WN	Wigeon
FF	Fieldfare	MS	Mute Swan	WP	Woodpigeon
GA	Gadwall	P.	Grey Partridge	WR	Wren
GB	Great Black-backed Gull	PH	Pheasant	Y.	Yellowhammer
GJ	Greylag Goose	PW	Pied Wagtail		
GO	Goldfinch	R.	Robin		

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 3 - non-breeding



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DRAWING TITLE
Figure 7.6.4.2: Wintering Bird Survey Results - December (East)

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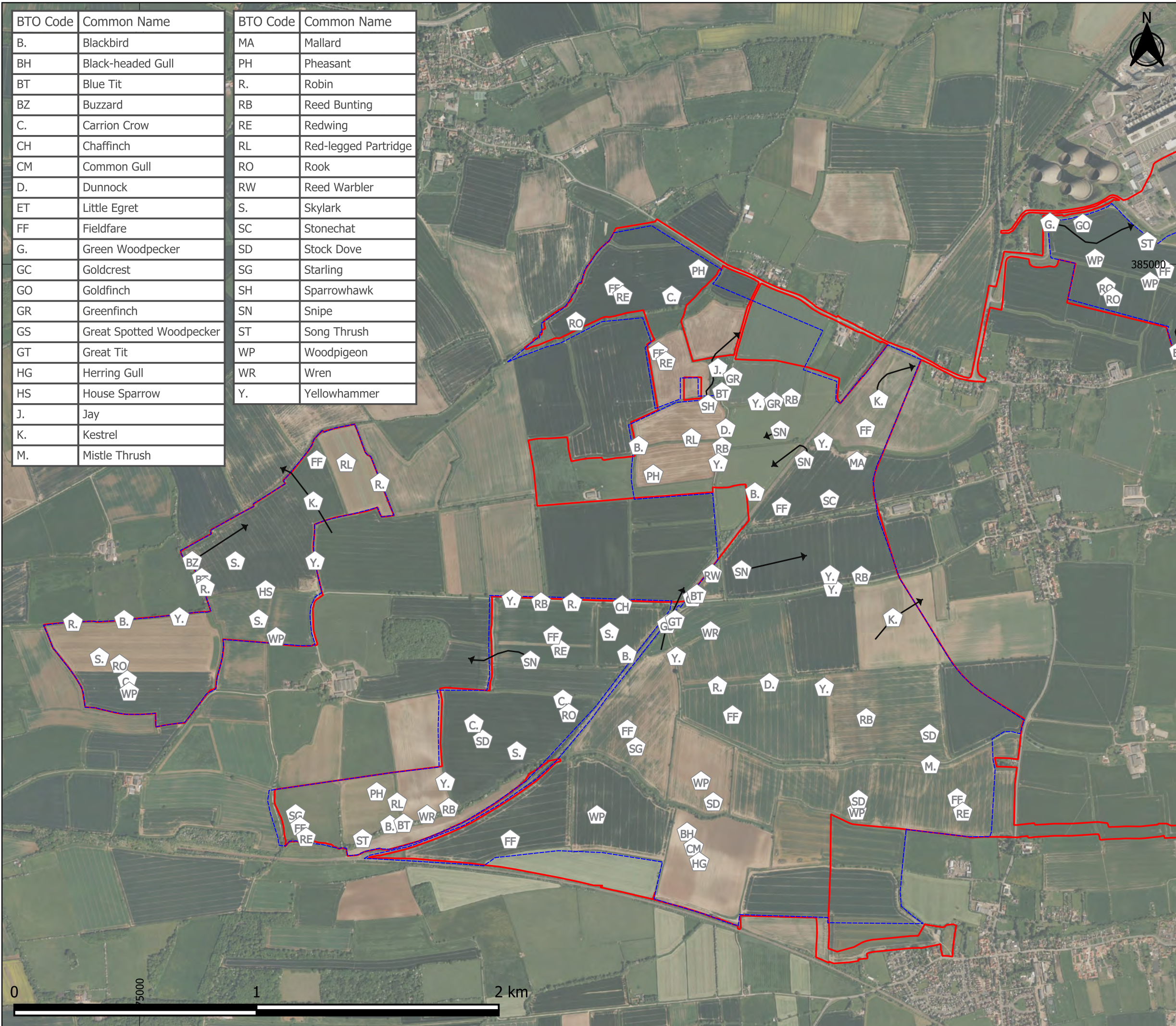
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Sources: BSG Ecology survey data

Graphics Ref. No.: 05585

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MA	Mallard
BH	Black-headed Gull	PH	Pheasant
BT	Blue Tit	R.	Robin
BZ	Buzzard	RB	Reed Bunting
C.	Carrion Crow	RE	Redwing
CH	Chaffinch	RL	Red-legged Partridge
CM	Common Gull	RO	Rook
D.	Dunnock	RW	Reed Warbler
ET	Little Egret	S.	Skylark
FF	Fieldfare	SC	Stonechat
G.	Green Woodpecker	SD	Stock Dove
GC	Goldcrest	SG	Starling
GO	Goldfinch	SH	Sparrowhawk
GR	Greenfinch	SN	Snipe
GS	Great Spotted Woodpecker	ST	Song Thrush
GT	Great Tit	WP	Woodpigeon
HG	Herring Gull	WR	Wren
HS	House Sparrow	Y.	Yellowhammer
J.	Jay		
K.	Kestrel		
M.	Mistle Thrush		



Legend

- Site boundary
- Survey boundary
- Flying
- Visit 4 - non-breeding



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PROJECT TITLE
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DRAWING TITLE
Figure 7.6.5.1: Wintering Bird Survey Results - January (West)

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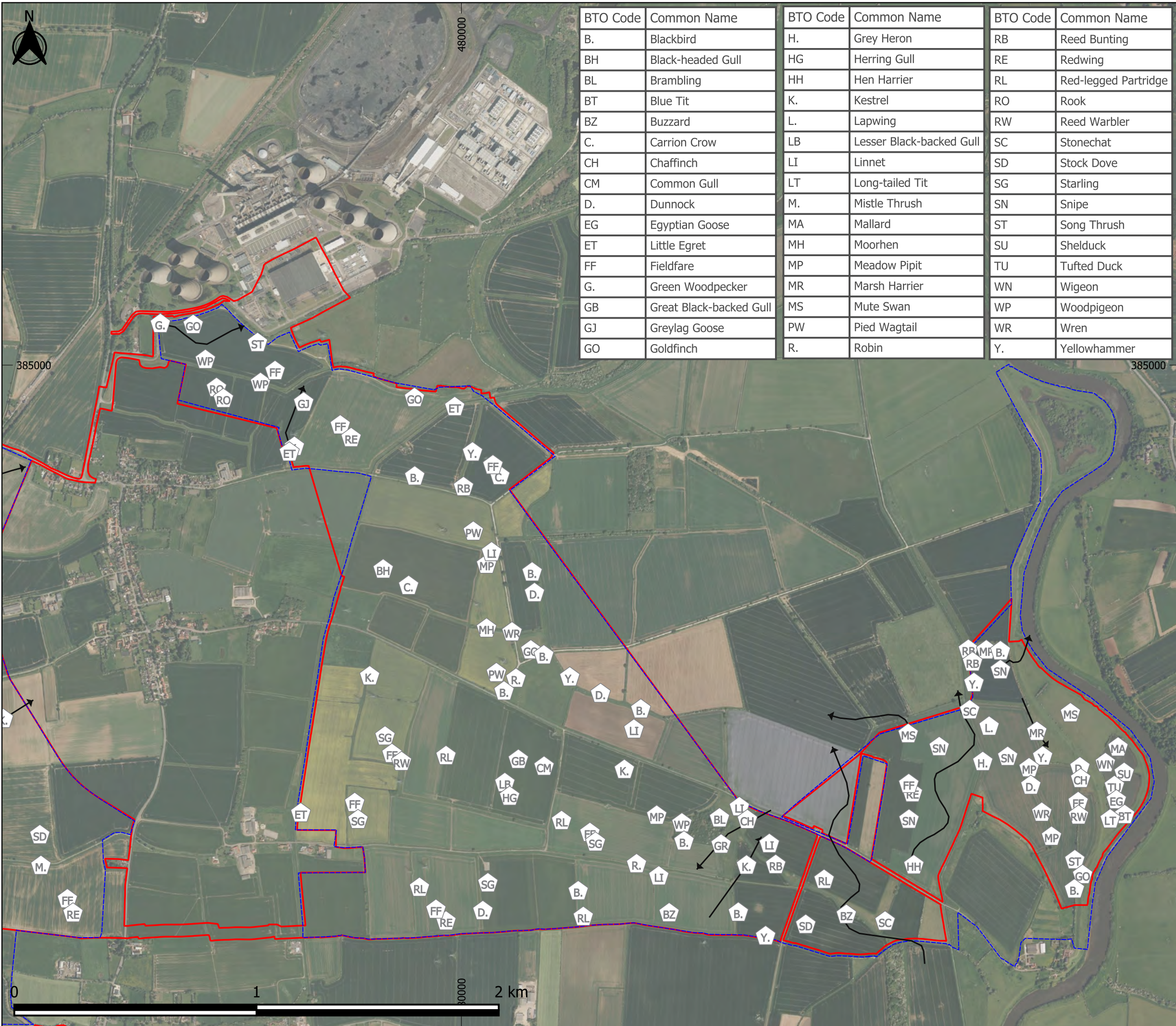
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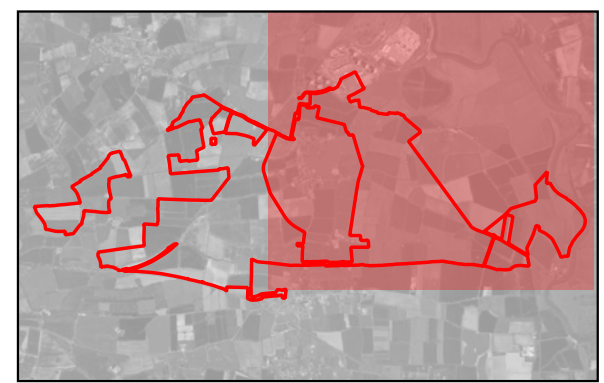
Sources: BSG Ecology survey data

Graphics Ref. No.: 06335



BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	H.	Grey Heron	RB	Reed Bunting
BH	Black-headed Gull	HG	Herring Gull	RE	Redwing
BL	Brambling	HH	Hen Harrier	RL	Red-legged Partridge
BT	Blue Tit	K.	Kestrel	RO	Rook
BZ	Buzzard	L.	Lapwing	RW	Reed Warbler
C.	Carrion Crow	LB	Lesser Black-backed Gull	SC	Stonechat
CH	Chaffinch	LI	Linnet	SD	Stock Dove
CM	Common Gull	LT	Long-tailed Tit	SG	Starling
D.	Dunnock	M.	Mistle Thrush	SN	Snipe
EG	Egyptian Goose	MA	Mallard	ST	Song Thrush
ET	Little Egret	MH	Moorhen	SU	Shelduck
FF	Fieldfare	MP	Meadow Pipit	TU	Tufted Duck
G.	Green Woodpecker	MR	Marsh Harrier	WN	Wigeon
GB	Great Black-backed Gull	MS	Mute Swan	WP	Woodpigeon
GJ	Greylag Goose	PW	Pied Wagtail	WR	Wren
GO	Goldfinch	R.	Robin	Y.	Yellowhammer

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 4 - non-breeding



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PROJECT TITLE
STEEPLE RENEWABLES PROJECT

DRAWING TITLE
Figure 7.6.5.2: Wintering Bird Survey Results - January (East)

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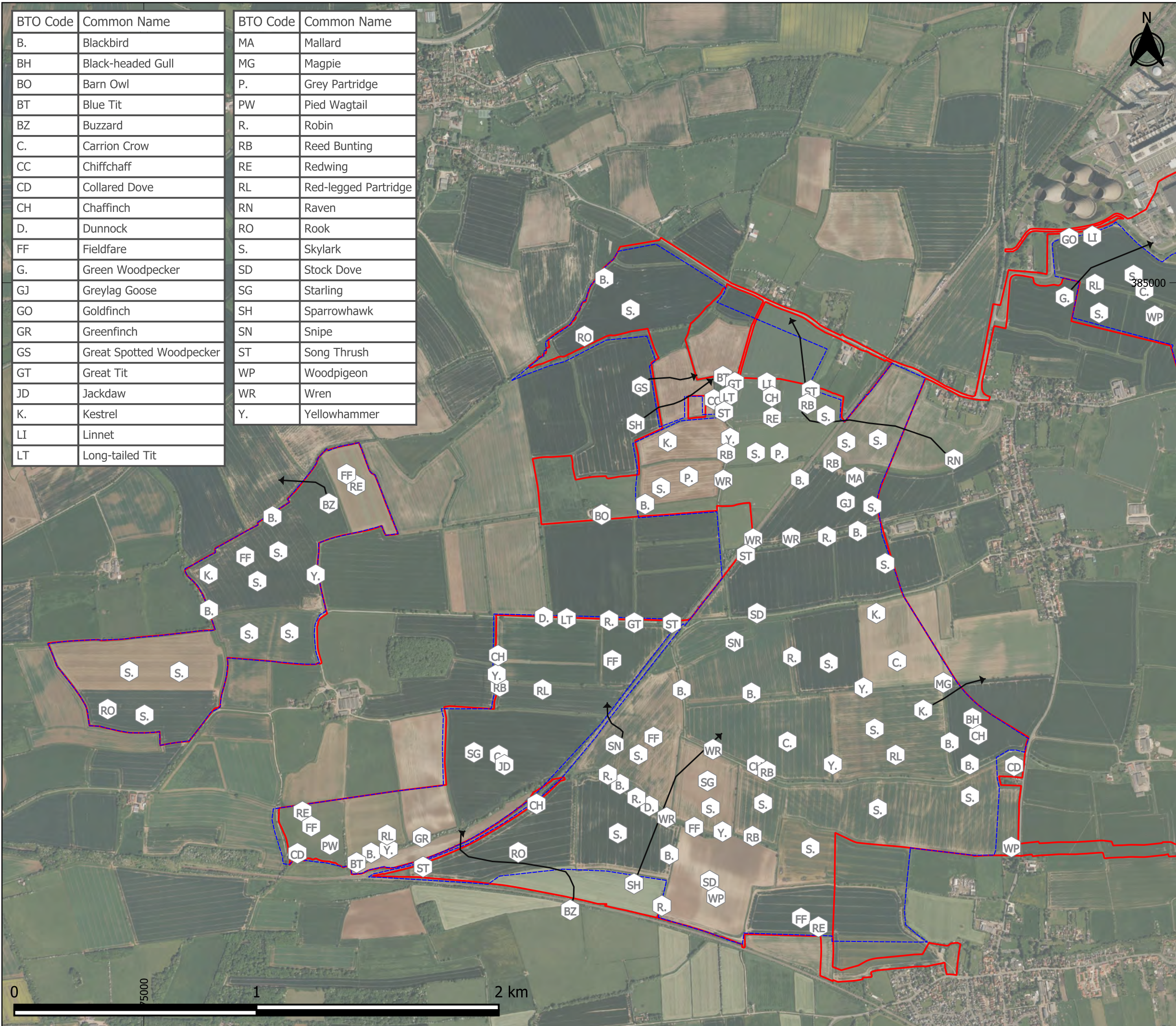
Projection: OSGB 1936/British National Grid - EPSG 27700

Sources: BSG Ecology survey data

Graphics Ref. No.: 06334

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MA	Mallard
BH	Black-headed Gull	MG	Magpie
BO	Barn Owl	P.	Grey Partridge
BT	Blue Tit	PW	Pied Wagtail
BZ	Buzzard	R.	Robin
C.	Carrion Crow	RB	Reed Bunting
CC	Chiffchaff	RE	Redwing
CD	Collared Dove	RL	Red-legged Partridge
CH	Chaffinch	RN	Raven
D.	Dunnock	RO	Rook
FF	Fieldfare	S.	Skylark
G.	Green Woodpecker	SD	Stock Dove
GJ	Greylag Goose	SG	Starling
GO	Goldfinch	SH	Sparrowhawk
GR	Greenfinch	SN	Snipe
GS	Great Spotted Woodpecker	ST	Song Thrush
GT	Great Tit	WP	Woodpigeon
JD	Jackdaw	WR	Wren
K.	Kestrel	Y.	Yellowhammer
LI	Linnet		
LT	Long-tailed Tit		

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 5 - non-breeding



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Figure 7.6.6.1: Wintering Bird Survey Results - February (West)

DATE: 21/11/2024 CHECKED: DF SCALE: 1:15,000
 DRAWN: SP APPROVED: DF VERSION: 1.3

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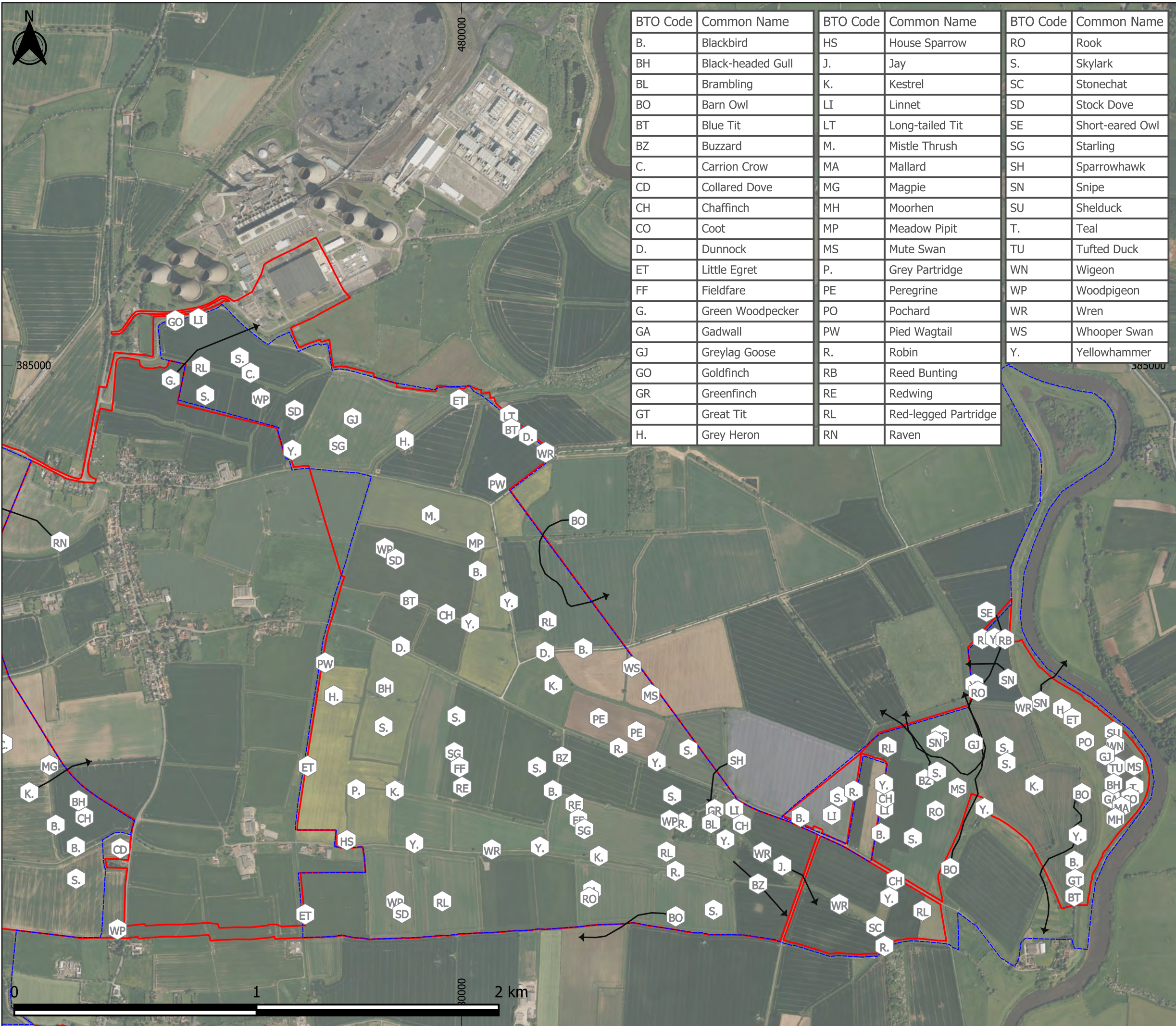
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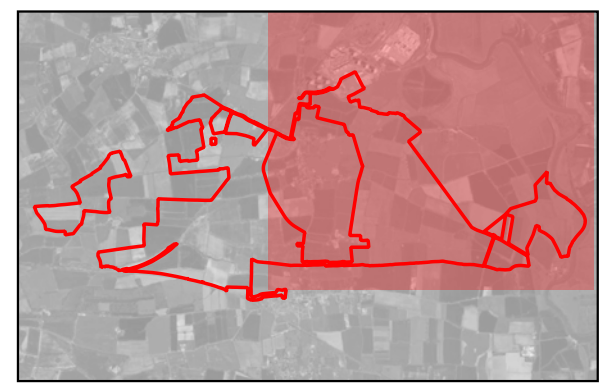
Sources: BSG Ecology survey data

Graphics Ref. No.: 06337



BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	HS	House Sparrow	RO	Rook
BH	Black-headed Gull	J.	Jay	S.	Skylark
BL	Brambling	K.	Kestrel	SC	Stonechat
BO	Barn Owl	LI	Linnet	SD	Stock Dove
BT	Blue Tit	LT	Long-tailed Tit	SE	Short-eared Owl
BZ	Buzzard	M.	Mistle Thrush	SG	Starling
C.	Carrion Crow	MA	Mallard	SH	Sparrowhawk
CD	Collared Dove	MG	Magpie	SN	Snipe
CH	Chaffinch	MH	Moorhen	SU	Shelduck
CO	Coot	MP	Meadow Pipit	T.	Teal
D.	Dunnock	MS	Mute Swan	TU	Tufted Duck
ET	Little Egret	P.	Grey Partridge	WN	Wigeon
FF	Fieldfare	PE	Peregrine	WP	Woodpigeon
G.	Green Woodpecker	PO	Pochard	WR	Wren
GA	Gadwall	PW	Pied Wagtail	WS	Whooper Swan
GJ	Greylag Goose	R.	Robin	Y.	Yellowhammer
GO	Goldfinch	RB	Reed Bunting		
GR	Greenfinch	RE	Redwing		
GT	Great Tit	RL	Red-legged Partridge		
H.	Grey Heron	RN	Raven		

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 5 - non-breeding



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Figure 7.6.6.2: Wintering Bird Survey Results - February (East)

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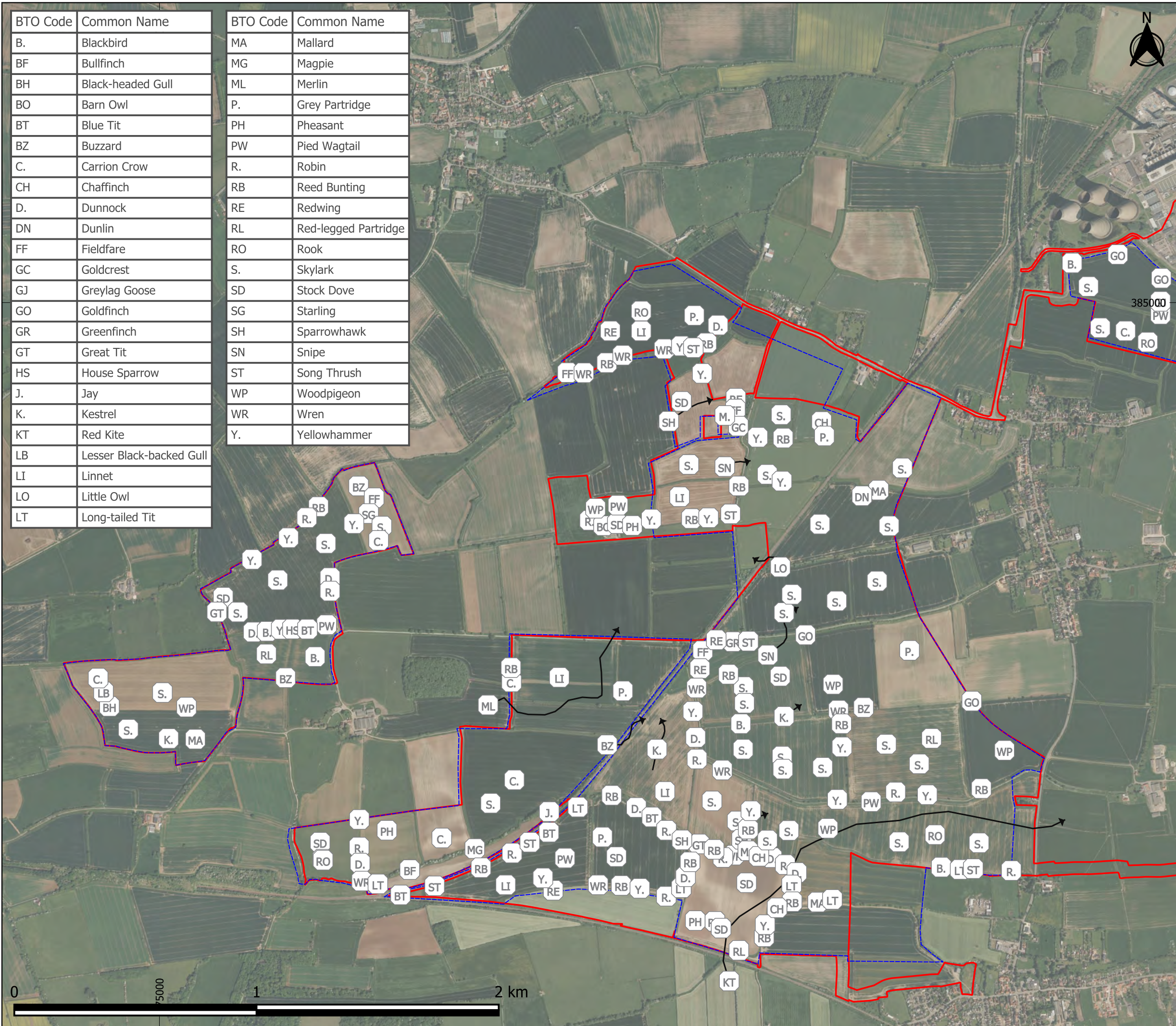
Sources: BSG Ecology survey data

Graphics Ref. No.: 06336

BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	MA	Mallard
BF	Bullfinch	MG	Magpie
BH	Black-headed Gull	ML	Merlin
BO	Barn Owl	P.	Grey Partridge
BT	Blue Tit	PH	Pheasant
BZ	Buzzard	PW	Pied Wagtail
C.	Carrion Crow	R.	Robin
CH	Chaffinch	RB	Reed Bunting
D.	Duncock	RE	Redwing
DN	Dunlin	RL	Red-legged Partridge
FF	Fieldfare	RO	Rook
GC	Goldcrest	S.	Skylark
GJ	Greylag Goose	SD	Stock Dove
GO	Goldfinch	SG	Starling
GR	Greenfinch	SH	Sparrowhawk
GT	Great Tit	SN	Snipe
HS	House Sparrow	ST	Song Thrush
J.	Jay	WP	Woodpigeon
K.	Kestrel	WR	Wren
KT	Red Kite	Y.	Yellowhammer
LB	Lesser Black-backed Gull		
LI	Linnet		
LO	Little Owl		
LT	Long-tailed Tit		



- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 6 - non-breeding



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Figure 7.6.7.1: Wintering Bird Survey Results - March (West)

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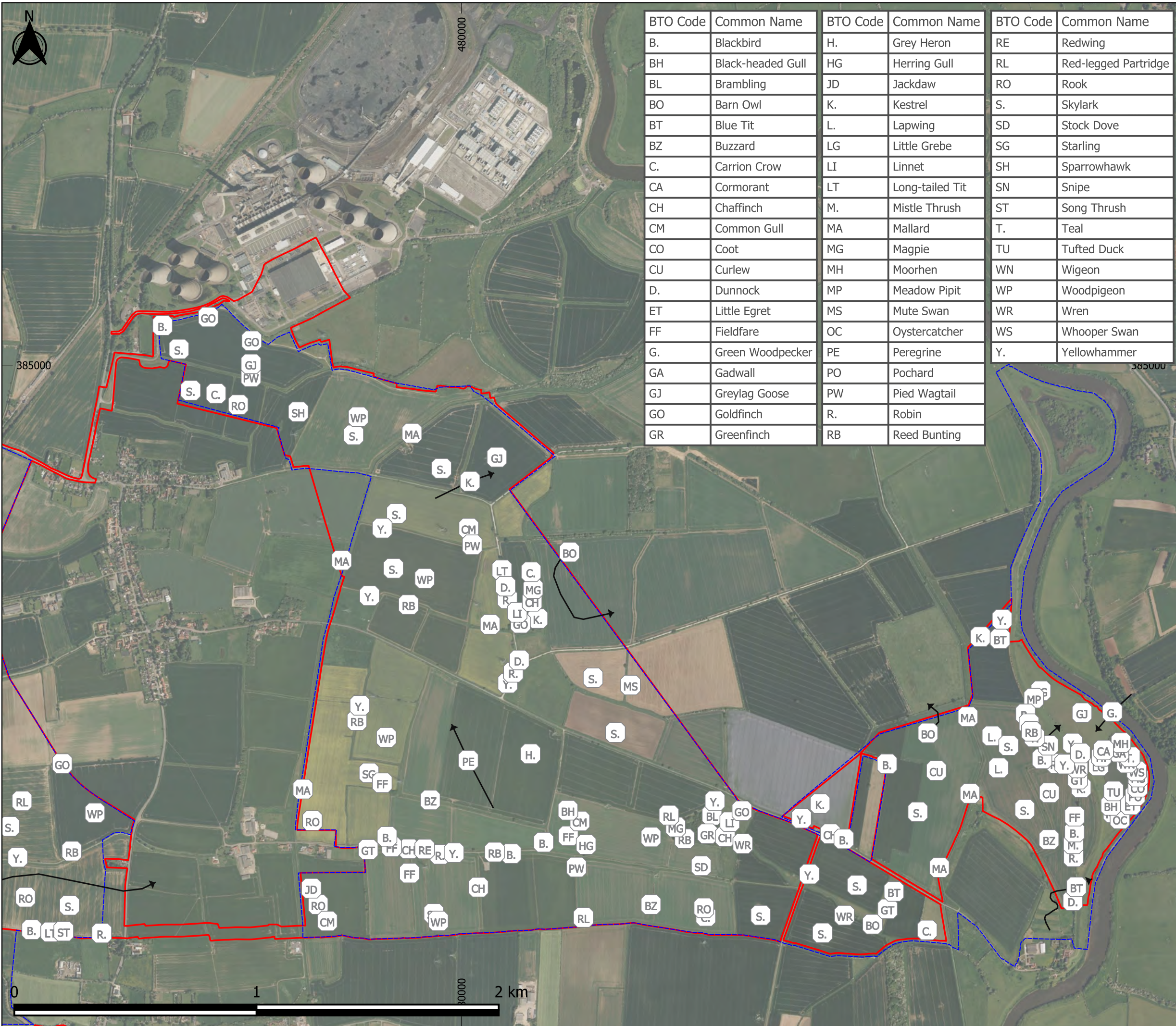
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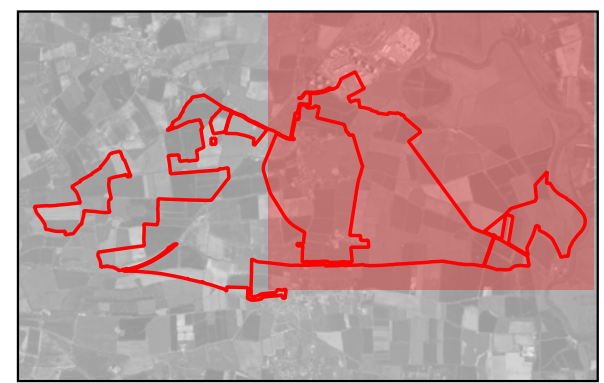
Sources: BSG Ecology survey data

Graphics Ref. No.: 06339



BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name
B.	Blackbird	H.	Grey Heron	RE	Redwing
BH	Black-headed Gull	HG	Herring Gull	RL	Red-legged Partridge
BL	Brambling	JD	Jackdaw	RO	Rook
BO	Barn Owl	K.	Kestrel	S.	Skylark
BT	Blue Tit	L.	Lapwing	SD	Stock Dove
BZ	Buzzard	LG	Little Grebe	SG	Starling
C.	Carrion Crow	LI	Linnet	SH	Sparrowhawk
CA	Cormorant	LT	Long-tailed Tit	SN	Snipe
CH	Chaffinch	M.	Mistle Thrush	ST	Song Thrush
CM	Common Gull	MA	Mallard	T.	Teal
CO	Coot	MG	Magpie	TU	Tufted Duck
CU	Curlew	MH	Moorhen	WN	Wigeon
D.	Dunnock	MP	Meadow Pipit	WP	Woodpigeon
ET	Little Egret	MS	Mute Swan	WR	Wren
FF	Fieldfare	OC	Oystercatcher	WS	Whooper Swan
G.	Green Woodpecker	PE	Peregrine	Y.	Yellowhammer
GA	Gadwall	PO	Pochard		
GJ	Greylag Goose	PW	Pied Wagtail		
GO	Goldfinch	R.	Robin		
GR	Greenfinch	RB	Reed Bunting		

- Legend
- Site boundary
 - Survey boundary
 - Flying
 - Visit 6 - non-breeding



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Figure 7.6.7.2: Wintering Bird Survey Results - March (East)

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