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Appendix B: Natural England Supplementary Note

February 2025

Helios Renewable Energy Project

on behalf of Enso Green Holdings D Limited

Natural England Supplementary Note

Response to Natural England Relevant Representation Comments



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1 INTRODUCTION

1.1 Purpose

- 1.1.1 This document is prepared by Avian Ecology Ltd. ('AEL') on behalf of Enso Green Holdings D Limited (hereafter 'the Applicant'). It provides clarifications sought within Natural England's ('NE') relevant representations letter, dated 30th September 2024 (hereafter 'the NE RR letter'), Natural England's Written Representation, dated 13th January 2025 (hereafter 'the NE WR letter') and the ongoing engagement with Natural England on the key issues.

1.2 Structure of this Document

- 1.2.1 For ease of reference, this response document follows the sequence and referencing of NE WR letter, 'Part II: Natural England's detailed advice'. Section numbers presented from here-on match the corresponding row in NE's tabulated comments (NE 1 to NE 17).
- 1.2.2 Throughout this document, the following terms are used:
- 'Site' is used to refer to the Draft Order Limits.
 - 'Project' refers to the Application, i.e., the Helios Renewable Energy Project.

2 NE KEY ISSUE SECTION NE 1

2.1. FLL And Relevant European Sites

1.2.3 For the avoidance of doubt, all discussion of FLL relates to the following European sites only:

- Humber Estuary Special Protection Area (SPA) and Ramsar; and,
- Lower Derwent Valley SPA and Ramsar.

1.2.4 These will be referred to collectively as ‘the relevant European Sites’.

1.2.5 FLL is considered with regards to non-breeding species where these form either a qualifying species or an assemblage species of the relevant European Sites.

NE 1.1: International Designated Sites

1.2.6 The applicant has submitted a revised HRA (V3 20.02.25) to address this NE key issue reference.

NE 1.2: International Designated Sites

Potential Loss to FLL – comments on Ornithology Survey Report (Appendix 8.2)

1.2.7 The applicant has submitted a revised HRA (V3 20.02.25) to address this NE key issue reference.

1.2.8 Sub-sections A) to J) below do however provide additional clarifications and supporting information, where these have been requested by NE.

A) Comparison of Desk Study and Field Survey Results

1.2.9 Desk study records are presented in Annex 4 of the Appendix 8.2: Ornithological Survey Report and are shown on Figure 8.21 in the same report. These principally relate to records obtained from the North & East Yorkshire Ecological Data Centre (NEYEDC).

1.2.10 Of the records returned by NEYEDC, none were confirmed to be from within the Site; however, several grid references were submitted as four-figure grid references e.g. SE6528 with broad place locations e.g. Camblesforth and therefore may include records within the Site boundary.

1.2.11 Of those species which alone form a qualifying feature of the relevant European Sites, records were received of three species only within the last ten years (since 2014); two records of marsh harrier, two records of teal and two records of redshank were returned, with all records of marsh harrier and redshank and a single record of teal referring to observations within Drax Power Station >1.5km north of the Site boundary. The second record of teal referred to an observation located 700m north of the Site.

1.2.12 Of those species which qualify under the waterbird assemblage¹, a total of 18 records were returned, comprising the following species: shelduck, mallard, tufted duck, oystercatcher, lapwing and curlew.

¹ Natural England (2012) EC Directive 79/409 on the Conservation of Wild Birds Special Protection Area (SPA). As accessed here: <https://publications.naturalengland.org.uk/publication/3060748?category=3212324>

No information was provided of flock size for these records. Lapwing records referred to two records located directly to the north of Drax Power Station, approximately 1.5km from the Site boundary.

- 1.2.13 No records of SPA qualifying species or waterbird assemblage species were returned by NEYEDC. Surveys carried out by Avian Ecology Ltd found small numbers (Shelduck was recorded at <0.10% of the Humber Estuary SPA population² and wigeon were recorded at <0.63% of the Lower Derwent Valley SPA population²) within the Site and similarly small numbers within the 600m Wider Survey Area.
- 1.2.14 Subsequently the results of the desk study and field surveys are comparable; neither has provided evidence of regular use of the Site by potentially significant numbers of SPA qualifying or assemblage species which demonstrates **Negligible** use of the Site of SPA qualifying species, and occasional irregular use of the Wider Survey Area by small numbers of species listed as qualifying species of the Humber Estuary and Lower Derwent Valley SPA.
- 1.2.15 Please note that additional data sources were contacted, as requested in the NE RR letter, but none of these held any records for the Site. Further information is provided in Section C) below.

B) Consultation with County Ecologist

- 1.2.16 Consultation with North Yorkshire County Council (NYCC) was undertaken during the consultation period. Details are presented in Table 8.5 (Consultation Summary) of Chapter 8: Biodiversity of the application ES.
- 1.2.17 NYCC did not provide any additional information or comments in relation to European sites or qualifying bird species. Further consultation is not proposed.

C) Consultation with Local Bird Groups and Other Relevant Organisations

- 1.2.18 AEL approached the Yorkshire Naturalists Union on 4th November 2024. Their response via email dated 4th November 2024 states that they do not hold any records for the Drax area. York Ornithological Club was also approached on 4th November 2024. Their responses were received on 6th and 27th November 2024, which state they did not have any bird records for SE62 10km grid square (which corresponds with the Site). Correspondence is provided as **Annex 1**.
- 1.2.19 The Applicant is not aware of any other relevant organisations which may hold additional bird records.

² Woodward, I.D., Calbrade, N.A., Birtles, A., Feather, G.A., Peck, K., Wotton, S.R., Shaw, J.M., Balmer, D.E. and Frost, T.M. 2024. Waterbirds in the UK 2022/23: The Wetland Bird Survey and Goose & Swan Monitoring Programme. BTO/RSPB/JNCC/NatureScot. Thetford.

D) Use of the BTO WeBS data to Examine the Collected Survey Data Against Peak Bird Counts for the Estuary as a Whole and for the Most Relevant Sectors

Humber Estuary (River Humber – Howdendyke to Whitgift)

1.2.20 Using the British Trust for Ornithology's (BTO) Wetland Bird Survey (WeBS) data to assess the most recent (2018/19-2022/23) 5-year average population estimates for the Humber Estuary, the following species listed as qualifying species³ of the Humber Estuary and their populations are as follows:

- Great bittern – 3 (0.38% of estimated 795⁴ UK non-breeding population);
- Common shelduck – 9,362 (18.4% of estimated 51,000 UK non-breeding population);
- Pied avocet – 2,387 (27.44% of estimated 8,700 UK non-breeding population);
- European golden plover – 21,160 (5.16% of estimated 410,000 UK non-breeding population);
- Red knot – 23,073 (8.71% of estimated 265,000 UK non-breeding population);
- Dunlin – 18,815 (5.38% of estimated 350,000 UK non-breeding population);
- Ruff – 64 (6.96% of estimated 920 UK non-breeding population);
- Black-tailed godwit – 6,346 (15.48% of estimated 41,000 UK non-breeding population);
- Bar-tailed godwit – 1,986 (3.68% of estimated 8,700 UK non-breeding population); and,
- Common redshank – 2,570 (2.57% of the 100,000 UK non-breeding population).

1.2.21 The closest Humber Estuary BTO WeBS sector to the Site is 'River Humber – Howdendyke to Whitgift', located approximately 7.9km east south-east of the Site. It is noted that NE has not defined the 'most relevant sectors' of WeBS data and therefore this location is assumed to be the most relevant.

1.2.22 Of those species listed as standalone qualifying features of the Humber Estuary SPA, two species have been recorded during the winter months (November to March) within this WeBS sector of the Humber Estuary (golden plover and redshank). Corresponding 5-year peak counts (between 2018 and 2023) are shown in brackets:

- Eurasian golden plover (26). This equates to 0.1% of the Humber Estuary 5-year mean population estimates (also based upon WeBS data⁵).
- Redshank (32). This equates to 1.2% of the Humber Estuary 5-year mean population estimates based upon WeBS data⁵.

³ Neither marsh harrier nor hen harrier are included in the BTO WeBS data sets.

⁴ Population numbers gathered via British Trust for Ornithology website - <https://www.bto.org/understanding-birds/birdfacts/>

⁵ <https://app.bto.org/webs-reporting/numbers.jsp>

- 1.2.23 No other qualifying species of the Humber Estuary SPA were recorded during winter months in the previous five years within the Howdendyke to Whitgift WeBS count sector of the Humber Estuary.
- 1.2.24 Of those species listed on the Humber Estuary SPA 'waterbird assemblage', the following species were recorded during the winter months (November to March):
- Wigeon (69). This equates to 1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Teal (330). This equates to 5.7% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Mallard (248). This equates to 17% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Oystercatcher (3). This equates to <0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Golden plover (26). This equates to 0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Lapwing (206). This equates to 1.3% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Curlew (52). This equates to 2.3% of the Humber Estuary 5-year mean population estimates based upon WeBS data; and,
 - Redshank (32). This equates to 1.2% of the Humber Estuary 5-year mean population estimates based upon WeBS data.
- 1.2.25 During passage periods (July-October and April-June), shelduck was the only qualifying species recorded with a peak count of 1 representing less than 0.1% of the Humber Estuary population.
- 1.2.26 During passage periods, species listed under the waterbird assemblage of the Humber Estuary SPA included:
- Shelduck (1). This equates to <0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Wigeon (10). This equates to 0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Teal (41). This equates to 0.7% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Mallard (269 (18%)). This equates to 1.2% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
 - Oystercatcher (3). This equates to <0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;

- Golden plover (80). This equates to 0.4% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
- Grey plover (2). This equates to <0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
- Lapwing (203). This equates to 1.3% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
- Whimbrel (1). This equates to 2% of the Humber Estuary 5-year mean population estimates based upon WeBS data;
- Curlew (3). This equates to 0.1% of the Humber Estuary 5-year mean population estimates based upon WeBS data; and,
- Greenshank (1). This equates to 1.7% of the Humber Estuary 5-year mean population estimates based upon WeBS data.

1.2.27 Raw desk study data supplied by the BTO is provided separately in **Annex 2**.

1.2.28 During Wintering Bird Survey, within the Site and Wider Survey Area, golden plover, marsh harrier and shelduck were recorded in very low numbers (<10 birds) as peak counts. Waterbird assemblage species recorded within the Site and Wider Survey Area include: shelduck, wigeon, teal, mallard, shoveler, oystercatcher, golden plover and lapwing, with only lapwing ever exceeding 100 individuals. Similarly to WeBS counts within the closest WeBS Sector, lapwing number exceeded all other species and the presence of standalone qualifying SPA species (bittern, shelduck, marsh harrier, hen harrier, avocet, golden plover, knot, dunlin, ruff, black-tailed godwit, bar-tailed godwit, redshank or little tern) were either very small or absent.

1.2.29 A detailed breakdown of the Humber Estuary SPA / Ramsar qualifying species recorded within the closest WeBS section (Howdendyke to Whitgift) within the inner Humber Estuary suggests that qualifying SPA species are mostly absent or recorded in very low numbers. Evidence suggests that several qualifying species (golden plover and lapwing and other wading species) generally favour sections of the Humber Estuary with large open mudflats at low tide, which mostly occur over 20km to the east of the Site (Allen *et al.*, 2003⁶). Qualifying SPA species appear to be mostly absent from the inner Humber Estuary during winter and therefore any potential for impacts on SPA populations of these species is likely to be reduced with the Site's proximity to those populations within the estuary believed to exceed the maximum foraging distances recorded for most qualifying species (<20km).

⁶ Allen, J., Boyes, S., Burdon, D., Cutts, N., Hawthorne, E., Hemingway, K., Jarvis, S., Jennings, K., Mander, L., Murby, P., Proctor, N., Thomson, S. & Waters, R. (2003), The Humber Estuary: A comprehensive review of its nature conservation interest (No 547), English Nature (pp 39, 235)

Lower Derwent Ings

- 1.2.30 Using the BTO WeBS data to assess the most recent (2018/19-2022/23) 5-year average population estimates for the Lower Derwent Ings, the following species listed as qualifying species⁷ of the Lower Derwent Valley and their populations are as follows:
- Bewick's swan - 0 (0% of estimated 4,350 UK non-breeding population);
 - Wigeon – 11,372 (2.52% of estimated 450,000 UK non-breeding population);
 - Teal – 6,932 (1.59% of estimated 435,000 UK non-breeding population);
 - Golden plover – 2,420 (0.59% of estimated 410,000 UK non-breeding population); and,
 - Ruff – 55 (6.96% of estimated 920 UK non-breeding population).
- 1.2.31 The closest Lower Derwent Ings BTO WeBS sector to the Site is 'Menthorpe Ings and S.Derwent Valley', located approximately 6.2km north north-east of the Site. However, data for the whole of the SPA has been reviewed in preparation of this document, as the online BTO reporting does not include counts 5-year average populations for any species recorded on the Site (with the exception of wigeon, recorded in the Wider Survey Area).
- 1.2.32 Except for very small numbers (<20 birds) of golden plover, shelduck and teal and small numbers (<75 birds) of wigeon, no other qualifying species associated with the Lower Derwent Valley SPA were recorded within the Site or Wider Survey Area.
- 1.2.33 During Wintering Bird Survey, within the Site and Wider Survey Area, golden plover, wigeon and teal (shoveler was also recorded however this is only listed as a qualifying breeding SPA species) in low numbers (<75 birds) as peak counts. Waterbird assemblage species recorded within the Site and Wider Survey Area include: wigeon, teal and golden plover with no single species exceeding 100 birds.
- 1.2.34 Qualifying species of both the Humber Estuary and Lower Derwent Valley SPAs were recorded in very small or small numbers across the survey period and therefore no impacts of displacement of any birds associated with the nearby internationally designated sites are anticipated.

E) A desk-based assessment – using aerial photography mapping, habitat maps and relevant ecological literature of the suitability for SPA birds of the habitat present on the proposed site and adjacent fields.

- 1.2.35 Habitat suitability of Site and Wider Survey Area assessed across the three survey periods: non-breeding season 2021/22, non-breeding season 2022-23 and non-breeding season 2023-24 based on those habitats outlined as suitable to support foraging golden plover and lapwing when foraging inland in an arable landscape (Gillings and Fuller 1999)⁸.
- 1.2.36 This section also provides additional information on cropping patterns, provided by the landowners and tenants (as provided in **Annex 4**).

⁷ Shoveler is also listed as a qualifying species for Lower Derwent Valley SPA, but only listed for its breeding population, so is not included in this section.

⁸ https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/1999/rr224.pdf

1.2.37 Habitat surveys carried out in 2022 identified all habitats within the Site and concluded all fields remained as crop fields with grassland fields limited to the cable route. Habitat surveys were conducted during the optimal time for habitat surveys (April to September inclusive) being carried out between May and June 2022 and therefore outside of the non-breeding bird season, but show a continuation of arable cropland dominating the Site throughout the year (as shown in Figure 8.2 of Enso Green Holdings D Limited 6.3 Environmental Statement Appendix 8.1 - Baseline Habitats and Desk Study Report [App-144]).

Habitat Data Collected During the Course of Ornithology Surveys.

1.2.38 Details of the crop types/field types and their suitability for species associated with the Humber Estuary SPA are presented below in **Table 1.1**. The information in Table 1.1 is a breakdown of the crop types recorded during field surveys between 2021 and 2024 and states their suitability for foraging by SPA species (in particular golden plover and lapwing (based upon the findings of multiple studies of golden plover and lapwing foraging preference as listed in Gillings and Fuller 1999)). A further 26 fields within the Wider Survey Area (i.e. outside of the Site) were not fully visible and are therefore not included within this break down. Using aerial imagery, these fields were mostly ungrazed pasture or cereal crop (likely winter wheat) and most are small, enclosed fields surrounded by lines of trees or woodland edge. Several fields (field 300-315) were located immediately adjacent to glasshouses. Subsequently these fields are considered unlikely to regularly support wetland bird species. Distribution of crop types is shown in **Figures 1-3**.

Table 1.1: Crop/Habitat type and the suitability for use by SPA species.

Habitat/Crop type	Suitability for SPA Species	Number and Proportion of fields 2021/22 (245 fields total)	Number and Proportion of fields 2022/23 (27 fields total)	Number and Proportion of fields 2023/24 (270 fields total)
The Site				
Arable stubble	Suitable	12	-	18
Oilseed rape	Suitable	3	-	3
Root	Suitable	4	-	3
Tilled	Suitable	5	-	2
Winter 'wheat' ⁹	Suitable	22	-	20
Pasture (unstocked)	Suitable	-	1	1
% of field suitability per survey season	Suitable	100%	100%	100%
	Unsuitable	0%	0%	0%
Wider Survey Area				
Arable stubble	Suitable	58	2	62
Maize	Unsuitable	6	-	6
Oilseed rape	Suitable	1	-	1

⁹ Winter wheat refers to non-specified cereal crop (i.e. winter wheat or winter barley)

Pasture (stocked)	Suitable	16	2	18
Pasture (unstocked)	Suitable	48	12	60
Root	Suitable	16	-	16
Set-aside	Unsuitable	5	-	5
Tall ruderal	Unsuitable	3	-	3
Tilled	Suitable	16	2	18
Winter 'wheat'	Suitable	30	5	31
Golf course	Unsuitable	-	2	2
Scrub	Unsuitable	-	1	1
% of field suitability per survey season	Suitable	97%	88%	92%
	Unsuitable	3%	12%	8%

Habitat Data Collected provided by landowners/tenant farmers.

- 1.2.39 Data was received by all five current landowners / tenant farmers with their cropping patterns across all fields within the Site ranging from 2007 to present (for Unit E) to 2022 to present (Unit B). The detailed cropping information and landowner locations in relation to the Site (the Site boundary is overlaid over the figures within the report) is shown separately in Annex 5.

Unit A

- 1.2.40 Located within the centre of the Site and covering the largest part of the Site boundary, cropping data is provided from 2014 to present. The dominant crops include wheat milling and wheat feed with oilseed rape spring barley, winter barley and potatoes accounting for most of the cropping carried out by this landowner / tenant farmer. Many fields are located outside of the Site boundary and the information provided does not give a field-level breakdown, however the dominant wheat/barley crops with smaller numbers of oilseed rape and root crops aligns with observed data collected during field surveys.

Unit B

- 1.2.41 Located towards the far eastern part of the Site, four fields are included within the Site boundary. These fields have been cropped since 2022 as winter barley / winter wheat and potatoes. During 2024, two of these fields were cropped with maize. All fields within this unit were used for cropping.

Unit C

- 1.2.42 Located towards the north-western corner of the Site with all nine fields included within the Site boundary. Crops varied between 2015 and 2023 between wheat / barley and a rotation with carrots, parsnips, oilseed rape and sugarbeet. A general pattern of two years of cereal crop followed by one year of root crop was loosely followed. All fields within this unit were used for cropping.

Unit D

- 1.2.43 Located in the north-western most part of the Site with one field included within the Site boundary. Between 2019 and 2023 this was on a semi-regular rotation of winter wheat and spring barley with oilseed rape and sugar beet utilised in 2019 and 2021 (however this was observed to be winter 'wheat' during surveys). All fields within this unit were used for cropping.

Unit E

- 1.2.44 Located in the south-western part of the Site with all fields included within the Site boundary. Between 2007 and 2023, fields were mostly cropped with winter barley, spring barley, winter wheat and winter oats. Oilseed rape crops were used two or three times across this period, however cereal cropping was shown to dominate. All fields within this unit were used for cropping.

Review of Aerial Images

- 1.2.45 Aerial imagery was used to compare against ground-level observations of cropping data and appeared to remain consistent. All fields within the Site appeared to be arable cropland in varying states of growth.
- 1.2.46 Additionally, using Google Earth historical data, high-quality imagery dating back to 2002 was observed to assess any visible long-term changes to arable land use and throughout this time-period. The fields within the Site appear to have remained as arable cropland rather than grassland/pasture.
- 1.2.47 The agricultural land-use of the Site between 2021-2023 during non-breeding bird survey is believed to have been a typical representation of the Site as a whole.

Summary of Site Habitat Suitability for Qualifying and Assemblage Species of the Relevant European Sites

- 1.2.48 This section considers habitat suitability for those species recorded during field surveys, or for which desk study records have indicated potential presence.
- 1.2.49 Based on field survey data and records searches, this is limited to two plover species; golden plover and lapwing. It is accepted that the Site may, on occasion, be used by other SPA species; however, usage is considered so low that it is not feasible to link records to cropping data. Further, use of cropping data has limited use in terms of predicted effects over a forty-year period as farming practices, market forces and climatic conditions will inevitably change over that time.
- 1.2.50 Field-types considered suitable for lapwing and golden plover include: winter wheat, arable stubble, pasture (grazed and ungrazed), tilled and root due to their shorter swards and availability of surface foraging insects (e.g. earthworms, beetles and spiders) (Gillings and Fuller 1999)¹⁰, however invertebrate biomass is highest in permanent (five years or more) pasture and is mostly the chosen field habitat type of both plover species where available (Tucker, 1992¹¹).
- 1.2.51 All fields within the Site were arable farmland within no permanent pasture present within those fields that will be permanently impacted by the Project. A single field along the cable route was identified as ungrazed pasture (impacts to the habitats along the cable route will be temporary).

¹⁰ https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/1999/rr224.pdf

¹¹ Tucker, G.M. (1992) Effects of agricultural practices on field use by invertebrate-feeding birds in winter. *Journal of Applied Ecology*, 29, 779-790.

- 1.2.52 All fields within the Site were considered potentially suitable for use by both species, although desk study and survey evidence suggested that both species have not been recorded within the habitats on Site or Wider Survey Area. Habitats along the cable route mostly follow tarmac road habitats considered unsuitable for foraging SPA species with small sections of golf course and ungrazed pasture also present. Habitat impacts along the cable route will be temporary.
- 1.2.53 The majority of fields assessed throughout the survey period showed the same crop to be present throughout the survey period of 2021-2024 suggesting there to be little crop rotation. Shrubbs (1988) found crop rotation played an important role for use by plover species and that there was an almost complete avoidance of cereal crops that have been maintained as the same crop for three or more consecutive years. In contrast, cereal fields where clover leys or oil seed rape were added into the rotation were highly used in the season following the break-crops. Plover species are known to feed on surface or just below the surface-dwelling invertebrates, so regularly disturbed soils through tilling and spraying will reduce the abundance of this food source (Parr, 1992¹²).
- 1.2.54 Whilst the majority of fields within the Study Area (the Site and Wider Survey Area combined) are considered to be suitable for foraging use by golden plover and lapwing, however desk study records and field surveys show there is an apparent avoidance by both species. This suggests more suitable habitat (e.g. permanent grassland) is present elsewhere between the Site and the Humber Estuary SPA or whilst the habitats may be considered suitable, the apparent irregular crop rotation observed during the survey period renders many of the crop fields as sub-optimal for both species. Therefore, the Site is unlikely to regularly support significant numbers of either species associated with the Humber Estuary SPA.
- 1.2.55 **Figures 1-3** represent the crop or field types of fields within the survey areas between 2021-2024.

F) Update field survey maps (Appendix 8.1 Figures) to show transect routes

- 1.2.56 A revised plan showing the transect route is provided as **Figure 4**. All surveys were undertaken by experienced ornithologists using binoculars and telescopes (as required), and who are experienced in ensuring wetland birds are not disturbed. Visual coverage of the Site was considered to be very good.

G) August Survey Data

- 1.2.57 It is acknowledged that field surveys were carried out in September during each survey period and did not cover the early passage period of August, which for some bird species is the commencement of the autumn passage period (primarily waders (curlew, dunlin, oystercatcher, lapwing and golden plover), as other waterbirds tend to migrate later in the autumn period). Desk study records and field records show a very low use of qualifying species of the SPA using the habitats within the Study Area. It is considered unlikely that the Site would regularly support significant numbers of SPA species in August if there were not regular use across the remainder of passage period (broadly September and October), or mid-winter period.
- 1.2.58 This view is also supported by cropping data; it is relevant that a large majority of the fields within the Site were cropped with cereal or oil seed rape; during August many of these fields will still have been

¹² Parr, R. (1992) The decline to extinction of a population of Golden Plover in north-east Scotland. *Ornis Scandinavica*, 23, 152-158.

in the latter stages of crop development (pre-harvest) and therefore unsuitable to support SPA qualifying or assemblage species. Furthermore, there is a general absence of pasture, which is often preferred by plover species (which are those SPA birds most likely to utilise farmland habitats on or around the Site).

- 1.2.59 WeBS data received for the closest section of the Humber Estuary (Howdendyke to Whitgift) shows that golden plover were absent from the inner Humber Estuary in August, lapwing were recorded with an average of 17 birds, and curlew was recorded as single birds. No other qualifying wading species were recorded during August. Gillings & Fuller (1999⁶) suggests most golden plover will return to their wintering grounds by mid-November, so in August, many birds will still be within their upland breeding habitat. It is believed that non-breeding/failed breeding birds arrive onto the estuary from mid-July to late-September to moult and are associated with the middle and outer estuary where the presence of open mudflats and islands e.g. Bromsfleet Island (located approx. 20km east of the Site) occur at low tide (Allen *et al.*, 2003¹³). Subsequently it is considered unlikely that moulting birds would regularly travel from the estuary to the Site as the outer estuary is clearly preferred and the Site does not afford optimal foraging habitat.
- 1.2.60 For the Lower Derwent Valley SPA peak counts of golden plover, teal, wigeon, shoveler and ruff were all recorded between January to March. A full effort of field surveys was carried out within this time period and recorded very low numbers of qualifying SPA species suggesting that months where higher peak counts did not occur are unlikely to support contrastingly higher counts.
- 1.2.61 Therefore, the lack of August data for the survey period was not considered to be a significant limiting factor for the assessment.

H) Justification of Duration of Survey Programme

- 1.2.62 The NE RR letter presents a summary of the overall survey effort, which spans over two years but does not provide complete coverage of the Site for two years as land was added during the survey programme. Due to the evolving nature of the Site during the survey period, two complete years of surveys could not be achieved across the whole Site, however NE state that the requirement for 2 years of survey was not communicated to the Applicant and that along the provision of an additional desk-based study (see **Annex 1 and 2**), this shouldn't be necessary. The NE RR letter notes that their advice for projects within 10km of the relevant European Sites with a large footprint has evolved over time, and that NE now often advise that two years of data should be collected. It is welcomed that NE acknowledges the Applicant was not previously advised of this recommendation.
- 1.2.63 Extensive surveys have been completed across the Site. During the single complete year of survey for each area, two surveys a month were carried out in appropriate weather conditions and factored in varying times of tidal state and times of the day. Additionally, these surveys were supported with nocturnal non-breeding surveys in early 2024 and more recent supporting surveys in October to December 2024 (see Point J)).

¹³ Allen, J., Boyes, S., Burdon, D., Cutts, N., Hawthorne, E., Hemingway, K., Jarvis, S., Jennings, K., Mander, L., Murby, P., Proctor, N., Thomson, S. & Waters, R. (2003), The Humber Estuary: A comprehensive review of its nature conservation interest (No 547), English Nature (pp 39, 235)

- 1.2.64 With field surveys showing a low usage of qualifying SPA species, which is backed up by desk study records and the further analysis contained within this response document, it is evident that the Site is not regularly used by significant numbers of SPA species, with all species recorded consistently in very low numbers. The survey effort completed is therefore considered to be fully adequate and proportionate for impact assessment purposes, and for determining FLL.

I) Clarification of Peak Lapwing Count

- 1.2.65 NE has requested clarification of the peak figure of 211 lapwing, as given in Table 3.11 of Appendix 8.2, and in 4.3.18 and Table 5.1 of Appendix 8.9.
- 1.2.66 It is clarified that the peak count of 211 lapwings refers to a cumulative count of birds across a single visit in October 2021. The individual counts were as follows: 1 bird (fields 25), 118 birds (field 29) and 92 birds (field 234).

J) Nocturnal Survey Effort

- 1.2.67 NE has requested justification around the sufficiency of the nocturnal survey effort, and whether or not it is considered that further nocturnal survey is required to inform assessment of the impacts of the Project on FLL.
- 1.2.68 Three nocturnal surveys were carried out between January to March 2024 (as presented in Appendix 8.2). A total of nine Target Species were recorded with only small numbers of teal and mallard as the only species listed at qualifying species or waterbird assemblage species of the SPAs. No waders were recorded.
- 1.2.69 Three additional validation surveys have now been carried out, in November and December 2024. Details are presented in Annex 3. In summary, very low numbers (<5 birds) of lapwing and golden plover were recorded within the Site, with an incidental observation of 7 golden plover within the Wider Survey Area on one visit. Additional observations of single and pairs of mallards were also recorded. No other species associated with the SPA were recorded within the Site.
- 1.2.70 As such none of the surveys has identified significant levels of use of SPA bird species from the relevant European Sites, and therefore nocturnal survey results are consistent with diurnal survey data and desk study records. As such it is the Applicant's position that the nocturnal survey effort completed to inform the application, along with the recent validation surveys, is sufficient to inform the assessment of FLL.

NE 1.3 International Designated Sites

Comments on the Information to Inform HRA (V3 20.02.25) Document (Appendix 8.9 to the ES)

- 1.2.71 The applicant has submitted a revised HRA (V3 20.02.25) to address this NE key issue reference.

3 NE KEY ISSUE SECTION NE 2

3.1. International Designated Sites (Noise & Visual Disturbance)

- 1.2.72 The applicant has submitted a revised HRA (V3 20.02.25) to address this NE key issue reference.
- 1.2.73 It is agreed that the lake located adjacent to Field 339 (outside the Site), which was found to regularly support a more diverse range of waterbirds compared to surrounding arable landscape, is located approximately 200m from the underground cable corridor to the grid connection (which runs along New Road and within the existing Drax national grid compound) and is visually shielded by a large area of farmland and mature woodland/tree belt, therefore the potential for disturbance of waterbirds located within this lake is considered likely to be negligible and therefore not significant.
- 1.2.74 The conclusions of ES Chapter 8: Biodiversity, are unchanged.

4 NE KEY ISSUE SECTION NE 3

4.1. International Designated Sites (Operational Disturbance)

- 1.2.75 Operational disturbance during construction from glint and glare has been considered in the revised HRA (V3 20.02.25). Based on the information provided in the revised HRA (V2 10.01.25), it is agreed that impacts resulting from glint and glare can be ruled out and that no further assessment is required.
- 1.2.76 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

5 NE KEY ISSUE SECTION NE 4

5.1. International Designated Sites (Air Quality)

- 1.2.77 The applicant has submitted a revised HRA (V3 20.02.25) to address this NE key issue reference.
- 1.2.78 To further clarify, the following text has been provided by Air Quality Consultants Ltd and Transport Planning Associates, on behalf of the Applicant.

“Construction traffic will not travel northbound on the M62 beyond Junction 36. The strategic road network, freight interchange and ports are accessed via Junction 35 of the M62 and construction traffic will access the site from Junction 36, consequently construction trips would not be routed via Junction 37. Therefore, the construction traffic AADT flows on the M62 at the point that it is adjacent to the Humber Estuary SAC, SPA, Ramsar and SSSI (which intersect the M62 between Junctions 36 and 37), will be zero, and there will be no significant effects to the Humber Estuary SAC, SPA, Ramsar and SSSI and there are no habitats within 200 m of the construction traffic routes that require further consideration with respect to air quality impacts.”

- 1.2.79 The conclusions of ES Chapter 8: Biodiversity, are therefore unchanged.

6 NE KEY ISSUE SECTION NE 5

6.1. International Designated Sites (Mobile Sac Species)

Potential Impacts on Mobile Features (Species) Which Form Qualifying Features of the River Derwent SAC, Lower Derwent Valley SAC and Humber Estuary SAC

- 1.2.80 As requested by NE, the revised HRA (V3 20.02.25) has been updated to include information which is presented in Table 8.12 of the ES Chapter 8: Biodiversity and discussion of mobile features.
- 1.2.81 The Applicant acknowledges Natural England's comments regarding the River Derwent SAC, Lower Derwent SAC and Humber Estuary SAC and agree that there are unlikely to be impacts on these sites and welcome that Natural England will not raise this through examination.
- 1.2.82 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

7 NE KEY ISSUE SECTION NE 6

7.1. International Designated Sites (Skipworth Common SAC and Thorne Moors SAC)

- 1.2.83 As requested by NE, the revised HRA (V3 20.02.25) has been updated to include information which is presented in Table 8.12 of the ES Chapter 8: Biodiversity and discussion of mobile features.
- 1.2.84 It is agreed between both parties that impacts to Skipworth Common SAC and Thorne Moors SAC are unlikely.
- 1.2.85 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

8 NE KEY ISSUE SECTION NE 7

8.1. International Designated Sites (Thorne and Hatfield Moors SPA)

- 1.2.86 Potential Impacts on breeding Nightjar Associated with the Thorne and Hatfield Moors SPA have been precluded by virtue of separation distance. The revised HRA (V3 20.02.25) has been updated to include this information for completeness.
- 1.2.87 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

9 NE KEY ISSUE SECTION NE 8

9.1. International Designated Sites (In-Combination Effects)

- 1.2.88 As requested by NE, the revised HRA (V3 20.02.25) has been updated to include more recent information on East Yorkshire Solar Farm and additional in-combination assessment.
- 1.2.89 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

10 NE KEY ISSUE SECTION NE 9

10.1. International Designated Sites (General Advice)

- 1.2.90 The revised HRA (V3 20.02.25) has been updated to include detail on international designated sites other than Lower Derwent Valley SPA and Ramsar and Humber Estuary Spa and Ramsar to reflect NE's general advice with the inclusion of information from Table 8.12 of the ES Chapter 8: Biodiversity, as recommended in the NE RR letter.

11 NE KEY ISSUE SECTION NE 10

11.1. Nationally Designated Sites (Air Quality)

- 1.2.91 Text in this section of the NE response mirrors that under NE 4.
- 1.2.92 The conclusions of ES chapter 8: Biodiversity, are unchanged.

12 NE KEY ISSUE SECTION NE 11

12.1. Nationally Designated Sites (Humber Estuary SSSI)

- 1.2.93 Whilst ornithological features of the internationally designated sites have the potential to use the Site, there is potential for indirect and direct effects of the construction, operation and decommissioning phase of the Project to nearby nationally designated sites e.g. Humber Estuary Site of Species Scientific Interest (SSSI) as previously discussed in Table 8.12 of the Environmental Statement Chapter 8.
- 1.2.94 The Humber Estuary SSSI is a nationally important site for a breeding colony of grey seals *Halichoerus grypus*, river lamprey *Lampetra fluviatilis* and sea lamprey *Petromyzon marinus*, a vascular plant assemblage and an invertebrate assemblage. Due to the separation distance and considering the implantation of measures within the oCEMP of 6.8km from the Site, no direct impacts are anticipated to affect those species noted as having nationally important populations.
- 1.2.95 Priority habitats within the SSSI also include intertidal mudflats and sandflats and coastal saltmarsh. These are also not anticipated to be affected by the development due to separation distance, nature of the development and implementation of standard measures, as outlined within the oCEMP.
- 1.2.96 Whilst separation distance from the SSSI is considered unlikely for any direct or indirect effects to occur, pollution prevention will be implemented during construction and decommissioning with no risk of pollution anticipated during the construction phase. All measures implemented to reduce off-spill of any substances, liquids or increased dust/mud from the Site will prevent any potential pollution entering watercourses and impacting the Humber Estuary SSSI.
- 1.2.97 The conclusions of ES Chapter 8: Biodiversity, are unchanged.

13 NE KEY ISSUE SECTION NE 12

13.1. Nationally Designated Sites (Derwent Ings SSSI, Melbourne and Thornton Ings SSSI and Brighton Meadows SSSI)

- 1.2.98 In addition to Humber Estuary SSSI there is potential for indirect and direct effects of the construction, operation and decommissioning phase of the Project to a number of additional nearby nationally

designated sites as previously discussed in Table 8.12 of the Environmental Statement Chapter 8 (APP-028).

- 1.2.99 Derwent Ings SSSI, Melbourne & Thornton Ings SSSI and Brighton Meadows SSSI (with their qualifying features noted in Table 8.6 of the Environmental Statement Chapter 8 (APP-028) are present within 10km of the Site.
- 1.2.100 All three SSSI sites broadly overlap with the Lower Derwent Valley SPA/Ramsar designated for their waterbird assemblages.
- 1.2.101 Whilst the ornithological interest of the Site has been assessed previously in Appendix 8.2 of the ES, impact on additional qualifying features of the SSSI has been screened out of assessment due to the separation distance from the Site of 6.5km and the Site being located downstream from the River Derwent. No direct or indirect impacts to such features are considered likely on any of the nearby SSSI sites.

14 NE KEY ISSUE SECTION NE 13

14.1. Nationally Designated Sites (Eskamhorn Meadows SSSI)

- 1.2.102 NE note that effects on the SSSI are unlikely; however, NE consider that it is not yet possible to completely rule out impacts on the SSSI until their advice in point NE 10 is addressed.
- 1.2.103 Point NE 10 is addressed above and is concurrent with NE 4 (also outlined above).
- 1.2.104 It is the Applicant's position that effects on the SSSI can be ruled-out and therefore the conclusions of the ES Chapter 8: Biodiversity, are unchanged.

15 NE KEY ISSUE SECTION NE 14

15.1. Nationally Designated Sites (Thorne and Hatfield Moors SSSI)

- 1.2.105 NE note that their advice 'broadly coincides' with their advice on NE 5. It is assumed that this reference should be NE 7.
- 1.2.106 The SPA is located 9km from the Site and is designated for breeding European nightjars, a species which is restricted to moorland and heathland habitats which are absent from the Site. Based on the species' habitat requirements and the separation distance from the Site, no pathway for effects has been identified. Subsequently the SSSI is not considered further.
- 1.2.107 The conclusions of the ES Chapter 8: Biodiversity, are unchanged.

16 NE KEY ISSUE SECTION NE 15

16.1. Nationally Designated Sites (River Derwent SSSI)

- 1.2.108 The NE RR response notes that the River Derwent SSSI is not only designated for static features and recommends that mobile qualifying features including otter and fish (river lamprey, sea lamprey and bullhead) should be assessed. However, NE also note that effects are unlikely and do not intend to raise this issue further at examination.

1.2.109 The SSSI is located 2.2km NE of Site at its nearest point and is separated from the Site by the River Ouse. Given this, the distinctly different habitat characteristics of the Site (with no permanent flowing watercourses present within the Site) and SSSI, and nature of the development, effects on mobile features of the SSSI were screened out in ES Chapter 8: Biodiversity (Table 8.12). It is further noted that the habitat benefits incorporated within the development as non-mandatory Biodiversity Net Gain are likely to be beneficial to any species which could potentially occur on both the Site and the SSSI, such as mobile invertebrates.

1.2.110 The conclusions of ES Chapter 8: Biodiversity, are therefore unchanged.

17 NE KEY ISSUE SECTION NE 16

17.1. Protected Species

1.2.111 It is noted that the NE RR letter refers to NE's Standing Advice and that NE is not providing bespoke advice on the protected species information included in the ES for the Project.

1.2.112 No further response is required.

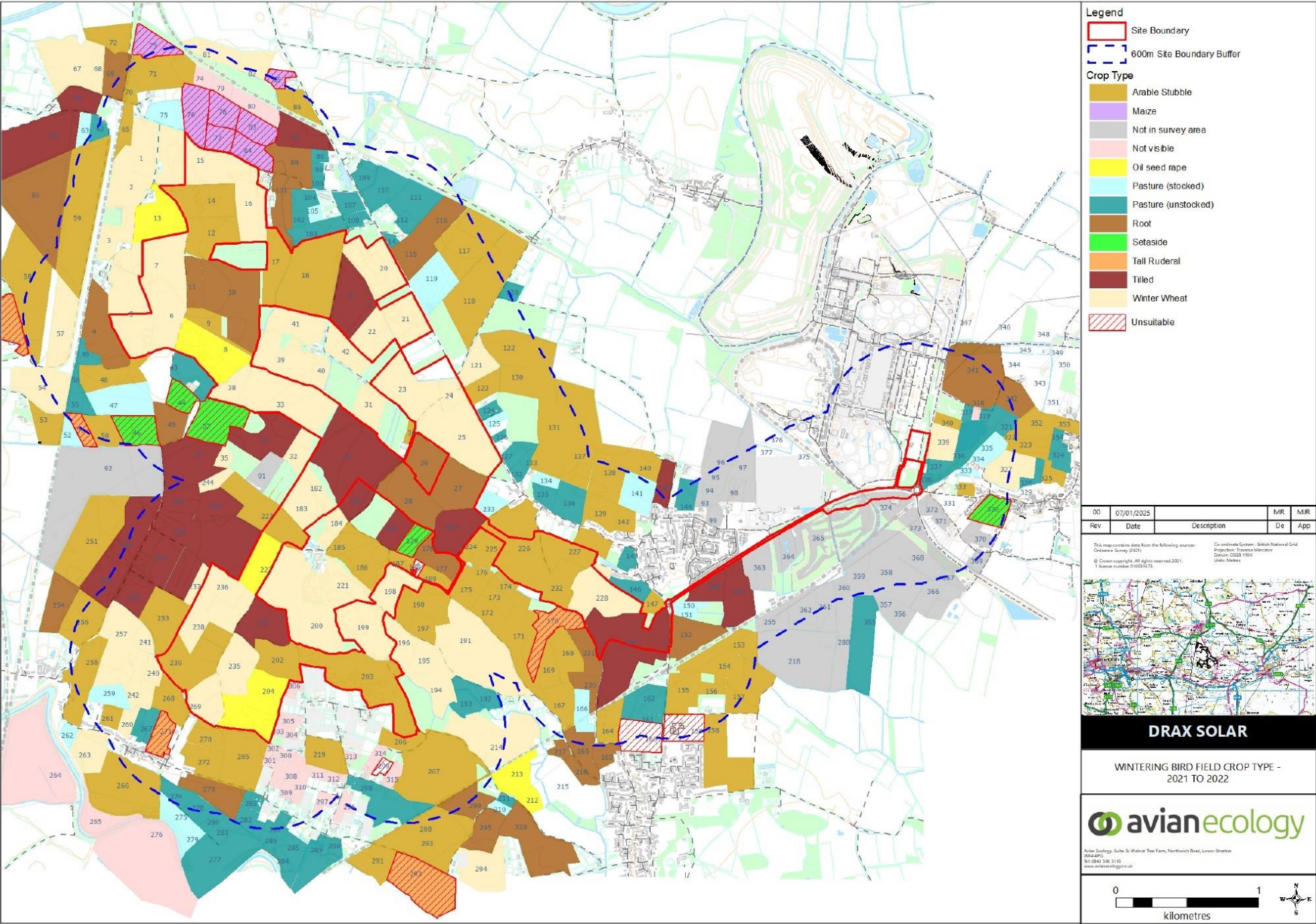
18 NE KEY ISSUE SECTION NE 17

18.1. Soils And BMV

1.2.113 The Soil Management Plan is secured in the DCO in accordance with the provisions of the outline Soil Management Plan.

1.2.114 No further response is required.

Figure 1: Field/Crop Types – 2021/22



Legend

- Site Boundary
- 600m Site Boundary Buffer
- Crop Type**
 - Arable Stubble
 - Golf course
 - Pasture (stocked)
 - Pasture (unstocked)
 - Scrub
 - Tilled
 - Winter Wheat
 - Unsuitable

Rev	Date	Description	MR	MR
00	07/01/2025			

This map contains data from the following sources:
 Ordnance Survey (2011)
 © Crown copyright. All rights reserved 2021.
 1: license number 01001073.

Coordinate System: British National Grid
 Projection: Transverse Mercator
 Datum: AD63 1980
 Units: Metres

DRAX SOLAR

WINTERING BIRD FIELD CROP TYPE -
 2022 TO 2023

avianecology

Avian Ecology, Suite 3a Walnut Tree Farm, Northwick Road, Leamington
 CV34 4JF
 Tel: 0843 100 51 51
 www.avianecology.co.uk

0 1
 kilometres

W E N S

00	07/01/2025		MR	MJ
Rev	Date	Description	De	Ap

This map contains data from the following sources:
Ordnance Survey (2021)

Co-ordinate System : British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Metres

**DRAX SOLAR**

WINTERING BIRD FIELD CROP TYPE -
2022 TO 2023



Avian Ecology, Suite 3c Walnut Tree Farm, Northwich Road, Lower Street
WA4 4PG
Tel: 0843 506 5116
www.avianecology.co.uk



Figure 3: Field/Crop Types – 2023/24

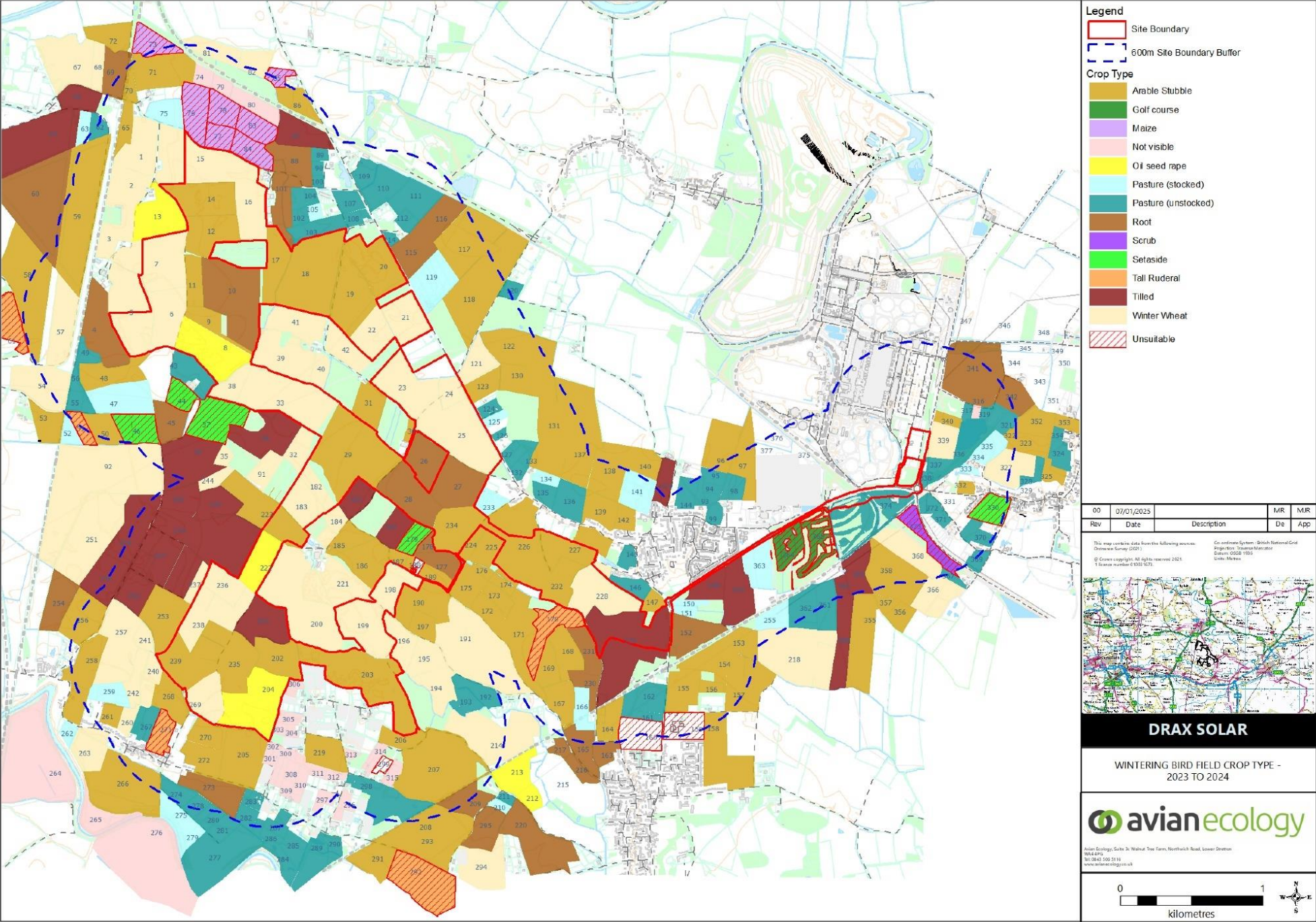
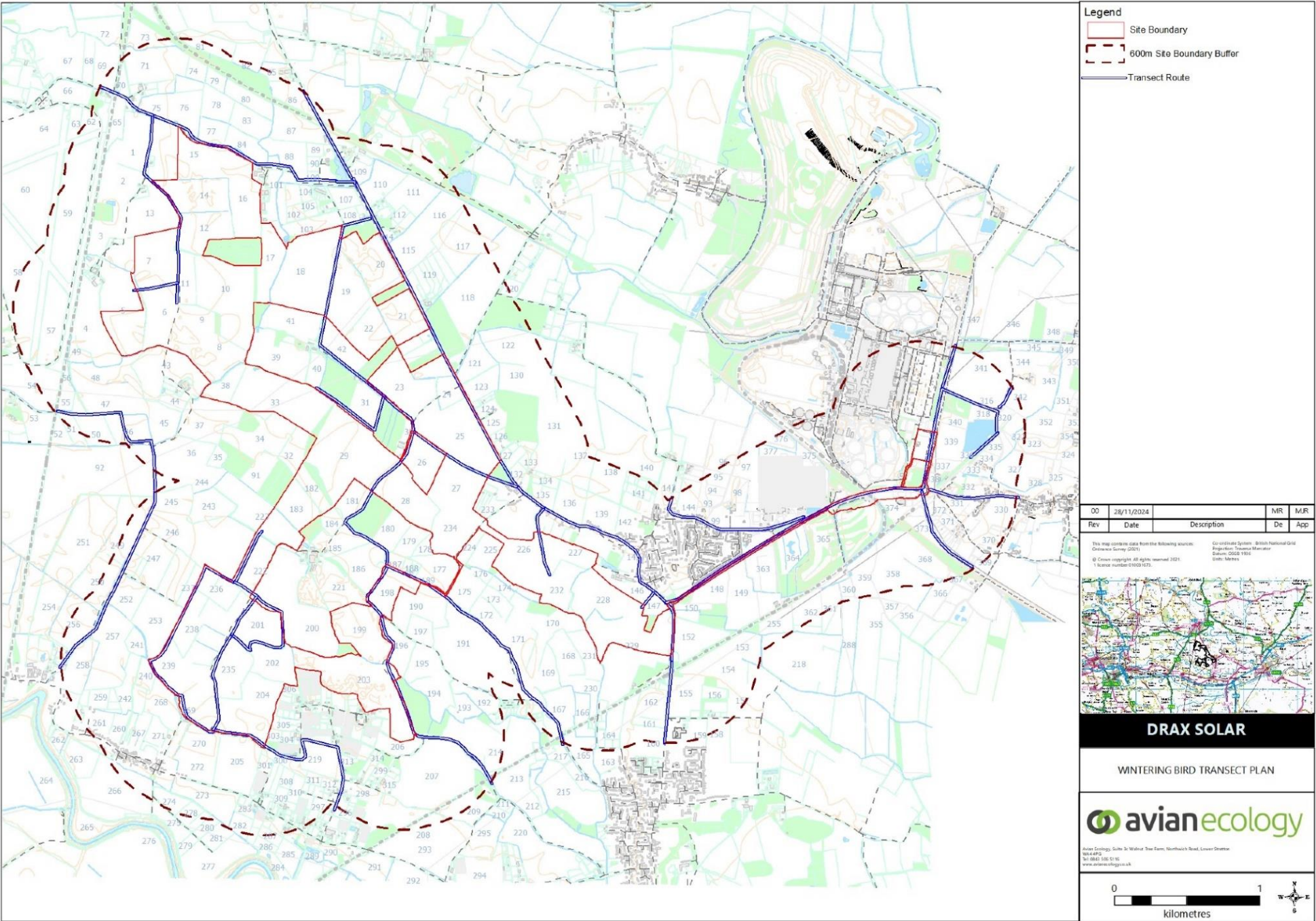


Figure 4: Transect Routes



**ANNEX 1 –
EMAIL DATA REQUESTS (Separate document)**

Helios Renewable Energy Project

on behalf of Enso Green Holdings D Limited

**Annex 1: Desk Study request responses via email communication
in November 2024.**



Document Control				
Project Name:		Helios Renewable Energy Project		
Project Number:		EnsoE-517-1435		
Report Title:		Annex 1: Desk Study request responses via email communication in November 2024.		
Issue	Date	Notes	Prepared	Reviewed
V1	08/01/2025	Draft Issue	Z Hinchcliffe Senior Ecologist <i>MRes BSc (Hons.)</i>	H Fearn Director <i>MSc MCIEEM</i>

This report has been prepared in accordance with the terms and conditions of appointment for the Ecological Services [on request]. Avian Ecology Ltd. (6839201) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

Email request to Yorkshire Naturalists Union on 4th November 2024 with response on the same day.

From: [REDACTED]
Sent: 04 November 2024 20:51
To: [REDACTED]@avianecology.co.uk>
Subject: Re: Drax bird records

Hi [REDACTED],

Thank you for getting in touch with me. I do not keep specific records for Drax, however, it may benefit you to contact [REDACTED] at YNU for any archived records for that particular site. [REDACTED] can be contacted via his email address, which is [REDACTED]. I recently took over as North Yorkshire Bird Recorder and YNU collate all records from Ornithological organisations from within the county.

May I wish you every good fortune in your quest to close Drax!

Kind regards and best wishes,

[REDACTED].

On Mon, Nov 4, 2024 at 12:52 PM Zac Hinchcliffe [REDACTED]@avianecology.co.uk> wrote:

Hi [REDACTED]

I'm looking to obtain some bird records to go with a planning application close to Drax power station and I was wondering if this is something YNU can provide as a service?

I would be looking at past records within the last ten years with a redline planning boundary. If this is something you can provide, I will provide the area required and relevant grid references.

I look forward to hearing from you.

Kind regards,

[REDACTED] *MRes BSc (Hons.)*

Senior Ecologist



Email request to York Ornithological Club Dated 4th November, with response on 27th November 2024.

From: secretary@yorkbirding.org.uk <secretary@yorkbirding.org.uk>

Sent: 27 November 2024 12:12

To: [REDACTED]@avianecology.co.uk>

Subject: RE: Bird Records info from YOC - data request form

Hi [REDACTED] – sorry, I have only just seen this email – Very odd, both your emails came in this morning at the same time (so heaven knows why your one of a few days back didn't reach me). I have just been looking at your map and from what I can work out the northernmost point of your red boundary line is in SE62, so we don't hold any records for that area.

All I can suggest is that you could try contacting the YNU (Yorkshire naturalists union) recorder and they might be able to help. Other sources of records would be from the BTO – Birdtrack and eBird. Loads of people submit records via these two sites now, so they might be your best bet: you would need to make a data request from them.

Sorry not to have been able to help.

Best wishes

[REDACTED]

From: [REDACTED]@avianecology.co.uk>

Sent: 27 November 2024 09:37

To: secretary@yorkbirding.org.uk

Subject: RE: Bird Records info from YOC - data request form

Hi [REDACTED]

Have you been able to review whether you have any data for SE63, yet?

Kind regards,

[REDACTED] *MRes BSc (Hons.)*

Senior Ecologist

 **avianecology**

From: [REDACTED]

Sent: 21 November 2024 14:32

To: secretary@yorkbirding.org.uk

Subject: RE: Bird Records info from YOC - data request form

Hi [REDACTED]

I believe our site redline falls partly within SE63. Can you confirm this, please?

Also do you know who would be able to provide data for SE62?

Kind regards,

[REDACTED] *MRes BSc (Hons.)*

Senior Ecologist



From: secretary@yorkbirding.org.uk <secretary@yorkbirding.org.uk>

Sent: 13 November 2024 09:31

To: [REDACTED] <[\[REDACTED\]@avianecology.co.uk](mailto:[REDACTED]@avianecology.co.uk)>

Subject: FW: Bird Records info from YOC - data request form

Hello [REDACTED]

I have just got home, so am attaching our proforma for Data requests as per my reply to you last week, just in case our recording area does overlap with the site that you are interested in data for.

Best wishes

[REDACTED]

From: secretary@yorkbirding.org.uk <secretary@yorkbirding.org.uk>

Sent: 06 November 2024 23:06

To: [REDACTED] <[\[REDACTED\]@avianecology.co.uk](mailto:[REDACTED]@avianecology.co.uk)>

Subject: RE: Bird Records

Hello [REDACTED]

I am currently away for a week, but I will send you our proforma for data requests on my return (sorry have realised that I don't have it available on this laptop!).

Just so you know, our recording area covers SE53, SE63, SE73 along our southern border, and Drax is south of this, so it is possible that we may lie too far north of the area that you are interested in.

Best wishes

[REDACTED]

From: [REDACTED] (via YorkBirding website) [REDACTED] [\[REDACTED\]@avianecology.co.uk](mailto:[REDACTED]@avianecology.co.uk)>

Sent: 04 November 2024 12:49

To: secretary@yorkbirding.org.uk

Subject: Bird Records

From:

Subject:

[REDACTED]
Bird

[REDACTED]
Records

Message

Body:

Hello. I'm compiling desk study records for a planning application close to Drax power station and I was wondering if YOC can provide data records from the last ten years from a specific site? Either that or if you know of any alternative sources. Any help appreciated

--

This e-mail was sent from the general contact form on YorkBirding (<http://yorkbirding.org.uk>)

SSent from [York Ornithological Club](#)

ANNEX 2 –
BTO WeBS DATA: RIVER HUMBER – HOWDENDYKE TO WHITGIFT
(Separate document)

Helios Renewable Energy Project

on behalf of Enso Green Holdings D Limited

Annex 2: WeBS data – Howdendyke to Whitgift.



Document Control			
Project Name:		Helios Renewable Energy Project	
Project Number:		EnsoE-517-1435	
Report Title:		Annex 2:WeBS data – Howdendyke to Whitgift	
Issue	Date	Notes	Reviewed
V1	08/01/2025	Draft Issue	Z Hinchcliffe Senior Ecologist <i>MRes BSc (Hons.)</i>

This report has been prepared in accordance with the terms and conditions of appointment for the Ecological Services [on request]. Avian Ecology Ltd. (6839201) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

Five year summary for River Humber - Howdendyke to Whitgift

Table1: Total Counts - All Species Combined.

Peak monthly total = maximum of the sum of the counts of all species within each month.

Seasonal peaks = sum of the maximum counts of for each species within each Season.

Year	Peak Monthly Total	Autumn Peak	Winter Peak	Spring Peak
18/19	()	N/C	N/C	N/C
19/20	885 (DEC)	N/C	1590	N/C
20/21	6697 (OCT)	6697	2466	422
21/22	5936 (DEC)	3094	6939	324
22/23	1197 (JAN)	N/C	1271	N/C
MEAN	3679	4896	3067	373

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts.

For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

*The Wetland Bird Survey is a partnership jointly funded by the British Trust for Ornithology,
the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee,
in association with the Wildfowl and Wetlands Trust,
with fieldwork conducted by volunteers.*

Five year summary for River Humber - Howdendyke to Whitgift

Table2: Five-year average monthly counts of each species.

Figure in parentheses give number of complete and incomplete counts upon which the average is based.
Incomplete counts are excluded from calculations where, if included, they would depress the mean.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Greylag Goose (British/Irish)	180(1,,)	480(1,,)	530(1,,)	570(1,,)	137(2,,)	309(3,,)	298(4,,)	60(2,,)	20(2,,)	16(2,,)	6(1,,)	14(1,,)
Pink-footed Goose	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	1301(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Mute Swan	0(1,,)	0(1,,)	0(1,,)	2(1,,)	0(2,,)	1(3,,)	1(4,,)	2(2,,)	1(2,,)	1(2,,)	0(1,,)	0(1,,)
Egyptian Goose	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	1(2,,)	1(2,,)	0(2,,)	0(1,,)	2(1,,)
Shelduck	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	1(2,,)	0(1,,)	0(1,,)
Shoveler	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	1(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Gadwall	0(1,,)	0(1,,)	3(1,,)	0(1,,)	0(2,,)	0(3,,)	1(4,,)	0(2,,)	2(2,,)	0(2,,)	0(1,,)	0(1,,)
Wigeon	0(1,,)	0(1,,)	0(1,,)	20(1,,)	0(2,,)	55(3,,)	29(4,,)	9(2,,)	13(2,,)	0(2,,)	0(1,,)	0(1,,)
Mallard	32(1,,)	164(1,,)	364(1,,)	173(1,,)	208(2,,)	208(3,,)	239(4,,)	83(2,,)	58(2,,)	43(2,,)	16(1,,)	65(1,,)
Teal	0(1,,)	26(1,,)	0(1,,)	10(1,,)	45(2,,)	207(3,,)	306(4,,)	267(2,,)	70(2,,)	41(2,,)	0(1,,)	0(1,,)
Goosander	0(1,,)	0(1,,)	0(1,,)	0(1,,)	1(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Great Crested Grebe	0(1,,)	0(1,,)	0(1,,)	1(1,,)	0(2,,)	0(3,,)	0(4,,)	1(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Grey Heron	2(1,,)	3(1,,)	2(1,,)	2(1,,)	5(2,,)	4(3,,)	7(4,,)	3(2,,)	5(2,,)	7(2,,)	6(1,,)	8(1,,)
Little Egret	2(1,,)	1(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	2(1,,)
Cormorant	104(1,,)	128(1,,)	145(1,,)	164(1,,)	240(2,,)	15(3,,)	149(4,,)	195(2,,)	152(2,,)	59(2,,)	43(1,,)	24(1,,)
Water Rail	0(1,,)	0(1,,)	0(1,,)	0(1,,)	2(2,,)	1(3,,)	1(4,,)	0(2,,)	1(2,,)	0(2,,)	0(1,,)	0(1,,)
Moorhen	0(1,,)	0(1,,)	2(1,,)	4(1,,)	4(2,,)	3(3,,)	3(4,,)	5(2,,)	1(2,,)	3(2,,)	0(1,,)	1(1,,)
Coot	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	1(2,,)	2(2,,)	1(2,,)	2(1,,)	0(1,,)
Crane	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	2(2,,)	4(2,,)	0(1,,)	0(1,,)
Oystercatcher	0(1,,)	1(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	3(2,,)	5(2,,)	2(2,,)	6(1,,)	0(1,,)
Lapwing	14(1,,)	17(1,,)	27(1,,)	378(1,,)	88(2,,)	235(3,,)	157(4,,)	65(2,,)	0(2,,)	4(2,,)	5(1,,)	0(1,,)
Golden Plover	0(1,,)	0(1,,)	0(1,,)	160(1,,)	13(2,,)	6(3,,)	26(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Grey Plover	0(1,,)	0(1,,)	3(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Whimbrel	1(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Curlew	0(1,,)	1(1,,)	5(1,,)	0(1,,)	5(2,,)	21(3,,)	40(4,,)	12(2,,)	13(2,,)	0(2,,)	0(1,,)	0(1,,)
Jack Snipe	0(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	1(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Snipe	0(1,,)	0(1,,)	0(1,,)	1(1,,)	5(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Common Sandpiper	0(1,,)	0(1,,)	1(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Redshank	0(1,,)	0(1,,)	0(1,,)	0(1,,)	12(2,,)	5(3,,)	31(4,,)	9(2,,)	6(2,,)	0(2,,)	0(1,,)	0(1,,)
Greenshank	0(1,,)	2(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Black-headed Gull	430(1,,)	600(1,,)	1800(1,,)	5000(1,,)	600(2,,)	133(3,,)	325(4,,)	235(2,,)	225(2,,)	125(2,,)	40(1,,)	4(1,,)
Mediterranean Gull	1(1,,)	0(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Common Gull	80(1,,)	30(1,,)	60(1,,)	200(1,,)	55(2,,)	72(3,,)	30(4,,)	37(2,,)	80(2,,)	25(2,,)	15(1,,)	1(1,,)
Great Black-backed Gull	6(1,,)	2(1,,)	8(1,,)	4(1,,)	2(2,,)	0(3,,)	3(4,,)	11(2,,)	1(2,,)	2(2,,)	3(1,,)	4(1,,)
Herring Gull	3(1,,)	10(1,,)	0(1,,)	8(1,,)	1(2,,)	1(3,,)	0(4,,)	4(2,,)	1(2,,)	0(2,,)	4(1,,)	1(1,,)
Yellow-legged Gull	4(1,,)	1(1,,)	0(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	0(2,,)	0(1,,)	0(1,,)
Lesser Black-backed Gull	76(1,,)	40(1,,)	26(1,,)	0(1,,)	0(2,,)	0(3,,)	0(4,,)	0(2,,)	0(2,,)	2(2,,)	0(1,,)	26(1,,)

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Five year summary for River Humber - Howdendyke to Whitgift

Table3: Five-year peak monthly counts of each species.

The value reported represents the highest count obtained over the five-year period during the month in question and the species in question.

Species	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Greylag Goose (British/Irish)	180	480	530	570	240	540	540	120	25	25	6	14
Pink-footed Goose	0	0	0	0	0	3900	0	0	0	0	0	0
Mute Swan	0	0	0	2	0	3	2	3	2	2	0	0
Egyptian Goose	0	0	0	0	0	0	1	1	1	0	0	2
Shelduck	0	0	0	0	0	0	0	0	0	2	0	0
Shoveler	0	0	0	0	0	0	2	0	0	0	0	0
Gadwall	0	0	3	0	0	0	2	0	4	0	0	0
Wigeon	0	0	0	20	0	160	86	10	25	0	0	0
Mallard	32	164	364	173	208	263	294	108	68	48	16	65
Teal	0	26	0	10	65	304	530	365	86	46	0	0
Goosander	0	0	0	0	1	0	0	0	0	0	0	0
Great Crested Grebe	0	0	0	1	0	0	0	1	0	0	0	0
Grey Heron	2	3	2	2	7	5	12	5	6	10	6	8
Little Egret	2	1	0	0	0	0	1	0	0	0	0	2
Cormorant	104	128	145	164	253	24	202	203	156	60	43	24
Water Rail	0	0	0	0	2	3	4	0	2	0	0	0
Moorhen	0	0	2	4	5	5	4	6	2	5	0	1
Coot	0	0	0	0	0	0	0	1	4	2	2	0
Crane	0	0	0	0	0	0	0	0	3	8	0	0
Oystercatcher	0	1	0	0	0	0	0	4	5	2	6	0
Lapwing	14	17	27	378	128	640	504	130	0	6	5	0
Golden Plover	0	0	0	160	26	18	75	0	0	0	0	0
Grey Plover	0	0	3	0	0	0	0	0	0	0	0	0
Whimbrel	1	0	0	0	0	0	0	0	0	0	0	0
Curlew	0	1	5	0	8	64	58	24	26	0	0	0
Jack Snipe	0	0	0	0	0	0	2	0	0	0	0	0
Snipe	0	0	0	1	9	0	0	0	0	0	0	0
Common Sandpiper	0	0	1	0	0	0	0	0	0	0	0	0
Redshank	0	0	0	0	16	11	57	10	11	0	0	0
Greenshank	0	2	0	0	0	0	0	0	0	0	0	0
Black-headed Gull	430	600	1800	5000	800	300	700	400	400	150	40	4
Mediterranean Gull	1	0	0	0	0	0	0	0	0	0	0	0
Common Gull	80	30	60	200	70	120	40	50	80	30	15	1
Great Black-backed Gull	6	2	8	4	2	1	4	18	2	3	3	4
Herring Gull	3	10	0	8	1	2	0	6	1	0	4	1
Yellow-legged Gull	4	1	0	0	0	0	0	0	0	0	0	0
Lesser Black-backed Gull	76	40	26	0	0	0	0	0	0	2	0	26

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Five year summary for River Humber - Howdendyke to Whitgift

Table4a: Five-year autumn peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and October for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	Mean of Peaks
Greylag Goose (British/Irish)	N/C	N/C	570 (OCT)	530 (SEP)	N/C	550
Mute Swan	N/C	N/C	2 (OCT)	0	N/C	1
Gadwall	N/C	N/C	0	3 (SEP)	N/C	2
Wigeon	N/C	N/C	20 (OCT)	0	N/C	10
Mallard	N/C	N/C	173 (OCT)	364 (SEP)	N/C	269
Teal	N/C	N/C	10 (OCT)	26 (AUG)	N/C	18
Great Crested Grebe	N/C	N/C	1 (OCT)	0	N/C	1
Grey Heron	N/C	N/C	2 (OCT)	3 (AUG)	N/C	3
Little Egret	N/C	N/C	0	2 (JUL)	N/C	1
Cormorant	N/C	N/C	164 (OCT)	145 (SEP)	N/C	155
Moorhen	N/C	N/C	4 (OCT)	2 (SEP)	N/C	3
Oystercatcher	N/C	N/C	0	1 (AUG)	N/C	1
Lapwing	N/C	N/C	378 (OCT)	27 (SEP)	N/C	203
Golden Plover	N/C	N/C	160 (OCT)	0	N/C	80
Grey Plover	N/C	N/C	0	3 (SEP)	N/C	2
Whimbrel	N/C	N/C	0	1 (JUL)	N/C	1
Curlew	N/C	N/C	0	5 (SEP)	N/C	3
Snipe	N/C	N/C	1 (OCT)	0	N/C	1
Common Sandpiper	N/C	N/C	0	1 (SEP)	N/C	1
Greenshank	N/C	N/C	0	2 (AUG)	N/C	1
Black-headed Gull	N/C	N/C	5000 (OCT)	1800 (SEP)	N/C	3400
Mediterranean Gull	N/C	N/C	0	1 (JUL)	N/C	1
Common Gull	N/C	N/C	200 (OCT)	80 (JUL)	N/C	140
Great Black-backed Gull	N/C	N/C	4 (OCT)	8 (SEP)	N/C	6
Herring Gull	N/C	N/C	8 (OCT)	10 (AUG)	N/C	9
Yellow-legged Gull	N/C	N/C	0	4 (JUL)	N/C	2
Lesser Black-backed Gull	N/C	N/C	0	76 (JUL)	N/C	38

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Five year summary for River Humber - Howdendyke to Whitgift

Table4b: Five-year winter peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between November and March for the winter in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	Mean Peak
Greylag Goose (British/Irish)	N/C	360 (DEC)	504 (JAN)	540 (DEC)	145 (JAN)	387
Pink-footed Goose	N/C	4 (DEC)	0	3900 (DEC)	0	976
Mute Swan	N/C	3 (DEC)	0	2 (MAR)	1 (JAN)	2
Egyptian Goose	N/C	0	0	1 (JAN)	0	0
Shoveler	N/C	0	0	2 (JAN)	0	1
Gadwall	N/C	0	0	4 (MAR)	0	1
Wigeon	N/C	86 (JAN)	6 (DEC)	160 (DEC)	25 (MAR)	69
Mallard	N/C	287 (JAN)	294 (JAN)	208 (NOV)	204 (JAN)	248
Teal	N/C	365 (FEB)	335 (JAN)	530 (JAN)	89 (JAN)	330
Goosander	N/C	0	0	1 (NOV)	0	0
Great Crested Grebe	N/C	0	0	1 (FEB)	0	0
Grey Heron	N/C	12 (JAN)	7 (NOV)	6 (MAR)	4 (JAN)	7
Little Egret	N/C	1 (JAN)	0	0	0	0
Cormorant	N/C	187 (FEB)	226 (NOV)	253 (NOV)	184 (JAN)	213
Water Rail	N/C	0	4 (JAN)	2 (NOV)	2 (MAR)	2
Moorhen	N/C	6 (FEB)	5 (NOV)	4 (FEB)	4 (JAN)	5
Coot	N/C	1 (FEB)	0	4 (MAR)	0	1
Crane	N/C	0	0	0	3 (MAR)	1
Oystercatcher	N/C	2 (FEB)	0	5 (MAR)	4 (MAR)	3
Lapwing	N/C	65 (DEC)	60 (JAN)	640 (DEC)	60 (JAN)	206
Golden Plover	N/C	0	28 (JAN)	75 (JAN)	0	26
Curlew	N/C	37 (JAN)	48 (JAN)	64 (DEC)	58 (JAN)	52
Jack Snipe	N/C	0	2 (JAN)	0	0	1
Snipe	N/C	0	9 (NOV)	0	0	2
Redshank	N/C	57 (JAN)	55 (JAN)	11 (DEC)	4 (JAN)	32
Black-headed Gull	N/C	70 (FEB)	800 (NOV)	400 (NOV)	400 (JAN)	418
Common Gull	N/C	23 (FEB)	80 (DEC)	120 (DEC)	80 (MAR)	76
Great Black-backed Gull	N/C	18 (FEB)	1 (NOV)	4 (JAN)	4 (JAN)	7
Herring Gull	N/C	6 (FEB)	2 (DEC)	2 (FEB)	0	3

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Five year summary for River Humber - Howdendyke to Whitgift

Table4c: Five-year spring peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between April and June for the year in question and the species in question
 Where a count is enclosed by parentheses this indicates that it was considered incomplete
 i.e. those parts of the site not visited typically holds at least 25% of the species in question.
 Incomplete counts are excluded from calculation where, if included, they would depress the mean.
 When all counts are considered to be incomplete the maximum replaces the mean.

Species	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	Mean Peak
Greylag Goose (British/Irish)	N/C	N/C	14 (JUN)	25 (APR)	N/C	20
Mute Swan	N/C	N/C	0	2 (APR)	N/C	1
Egyptian Goose	N/C	N/C	2 (JUN)	0	N/C	1
Shelduck	N/C	N/C	2 (APR)	0	N/C	1
Mallard	N/C	N/C	65 (JUN)	48 (APR)	N/C	57
Teal	N/C	N/C	35 (APR)	46 (APR)	N/C	41
Grey Heron	N/C	N/C	10 (APR)	4 (APR)	N/C	7
Little Egret	N/C	N/C	2 (JUN)	0	N/C	1
Cormorant	N/C	N/C	60 (APR)	58 (APR)	N/C	59
Moorhen	N/C	N/C	5 (APR)	0	N/C	3
Coot	N/C	N/C	2 (APR)	0	N/C	1
Crane	N/C	N/C	0	8 (APR)	N/C	4
Oystercatcher	N/C	N/C	6 (MAY)	2 (APR)	N/C	4
Lapwing	N/C	N/C	5 (MAY)	6 (APR)	N/C	6
Black-headed Gull	N/C	N/C	150 (APR)	100 (APR)	N/C	125
Common Gull	N/C	N/C	30 (APR)	20 (APR)	N/C	25
Great Black-backed Gull	N/C	N/C	4 (JUN)	3 (APR)	N/C	4
Herring Gull	N/C	N/C	4 (MAY)	0	N/C	2
Lesser Black-backed Gull	N/C	N/C	26 (JUN)	2 (APR)	N/C	14

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Five year summary for River Humber - Howdendyke to Whitgift

Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question
Where a count is enclosed by parentheses this indicates that it was considered incomplete
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Incomplete counts are excluded from calculation where, if included, they would depress the mean.
When all counts are considered to be incomplete the maximum replaces the mean.

Species	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	Mean Peak
Greylag Goose (British/Irish)	N/C	360 (DEC)	570 (OCT)	540 (DEC)	145 (JAN)	404
Pink-footed Goose	N/C	4 (DEC)	0	3900 (DEC)	0	976
Mute Swan	N/C	3 (DEC)	2 (OCT)	2 (APR)	1 (JAN)	2
Egyptian Goose	N/C	0	2 (JUN)	1 (JAN)	0	1
Shelduck	N/C	0	2 (APR)	0	0	1
Shoveler	N/C	0	0	2 (JAN)	0	1
Gadwall	N/C	0	0	4 (MAR)	0	1
Wigeon	N/C	86 (JAN)	20 (OCT)	160 (DEC)	25 (MAR)	73
Mallard	N/C	287 (JAN)	294 (JAN)	364 (SEP)	204 (JAN)	287
Teal	N/C	365 (FEB)	335 (JAN)	530 (JAN)	89 (JAN)	330
Goosander	N/C	0	0	1 (NOV)	0	0
Great Crested Grebe	N/C	0	1 (OCT)	1 (FEB)	0	1
Grey Heron	N/C	12 (JAN)	10 (APR)	6 (MAR)	4 (JAN)	8
Little Egret	N/C	1 (JAN)	2 (JUN)	2 (JUL)	0	1
Cormorant	N/C	187 (FEB)	226 (NOV)	253 (NOV)	184 (JAN)	213
Water Rail	N/C	0	4 (JAN)	2 (NOV)	2 (MAR)	2
Moorhen	N/C	6 (FEB)	5 (APR)	4 (FEB)	4 (JAN)	5
Coot	N/C	1 (FEB)	2 (APR)	4 (MAR)	0	2
Crane	N/C	0	0	8 (APR)	3 (MAR)	3
Oystercatcher	N/C	2 (FEB)	6 (MAY)	5 (MAR)	4 (MAR)	4
Lapwing	N/C	65 (DEC)	378 (OCT)	640 (DEC)	60 (JAN)	286
Golden Plover	N/C	0	160 (OCT)	75 (JAN)	0	59
Grey Plover	N/C	0	0	3 (SEP)	0	1
Whimbrel	N/C	0	0	1 (JUL)	0	0
Curlew	N/C	37 (JAN)	48 (JAN)	64 (DEC)	58 (JAN)	52
Jack Snipe	N/C	0	2 (JAN)	0	0	1
Snipe	N/C	0	9 (NOV)	0	0	2
Common Sandpiper	N/C	0	0	1 (SEP)	0	0
Redshank	N/C	57 (JAN)	55 (JAN)	11 (DEC)	4 (JAN)	32
Greenshank	N/C	0	0	2 (AUG)	0	1
Black-headed Gull	N/C	70 (FEB)	5000 (OCT)	1800 (SEP)	400 (JAN)	1818
Mediterranean Gull	N/C	0	0	1 (JUL)	0	0
Common Gull	N/C	23 (FEB)	200 (OCT)	120 (DEC)	80 (MAR)	106
Great Black-backed Gull	N/C	18 (FEB)	4 (OCT)	8 (SEP)	4 (JAN)	9

Data provided by the British Trust for Ornithology on behalf of The Wetland Bird Survey.

These tabulations are based exclusively on data collected as part of the monthly Core Counts.

For some species (e.g. wintering geese) data collected by other surveys may be more appropriate for the purpose of site assessment.

Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

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Five year summary for River Humber - Howdendyke to Whitgift

Table4d: Five-year annual peak counts, and month in which this was recorded, of each species.

The value reported represents the highest count obtained between July and June for the year in question and the species in question

Where a count is enclosed by parentheses this indicates that it was considered incomplete

i.e. those parts of the site not visited typically holds at least 25% of the species in question.

Incomplete counts are excluded from calculation where, if included, they would depress the mean.

When all counts are considered to be incomplete the maximum replaces the mean.

Species	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	Mean Peak
Herring Gull	N/C	6 (FEB)	8 (OCT)	10 (AUG)	0	6
Yellow-legged Gull	N/C	0	0	4 (JUL)	0	1
Lesser Black-backed Gull	N/C	0	26 (JUN)	76 (JUL)	0	26

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Missing or unexpectedly low counts for gulls and terns should be treated with caution - counting these groups is optional and determination of count effort not always possible.

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Five year summary for River Humber - Howdendyke to Whitgift

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2022/2023 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Greylag Goose (British/Irish)	39%	28%	1%	29%	N/A	N/A
Pink-footed Goose	N/A	19%	N/A	19%	N/A	18%
Mute Swan	0%	0%	0%	0%	0%	0%
Egyptian Goose	N/A	*0%	*2%	*2%	N/A	N/A
Shelduck	N/A	N/A	0%	0%	N/A	N/A
Shoveler	N/A	1%	N/A	1%	N/A	0%
Gadwall	1%	0%	N/A	0%	0%	0%
Wigeon	0%	2%	N/A	2%	0%	0%
Mallard	4%	4%	1%	4%	1%	1%
Teal	0%	8%	1%	8%	0%	7%
Great Crested Grebe	1%	0%	N/A	1%	0%	0%
Grey Heron	1%	2%	2%	2%	0%	0%
Little Egret	1%	0%	1%	1%	0%	0%
Cormorant	25%	34%	10%	34%	13%	18%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Greylag Goose (British/Irish)	N/A	N/A	550	387	20	404
Pink-footed Goose	N/A	18%		976		976
Mute Swan	0%	0%	1	2	1	2
Egyptian Goose	N/A	N/A		0	1	1
Shelduck	0%	0%			1	1
Shoveler	N/A	0%		1		1
Gadwall	N/A	0%	2	1		1
Wigeon	N/A	1%	10	69		73
Mallard	0%	1%	269	248	57	287
Teal	1%	7%	18	330	41	330
Great Crested Grebe	N/A	0%	1	0		1
Grey Heron	0%	0%	3	7	7	8
Little Egret	0%	0%	1	0	1	1
Cormorant	5%	18%	155	213	59	213

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Five year summary for River Humber - Howdendyke to Whitgift

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2022/2023 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Water Rail	N/A	*4%	N/A	*4%	N/A	0%
Moorhen	0%	0%	0%	0%	0%	0%
Coot	N/A	0%	0%	0%	N/A	0%
Crane	N/A	*2%	*8%	*6%	N/A	0%
Oystercatcher	0%	0%	0%	0%	0%	0%
Lapwing	3%	3%	0%	5%	1%	1%
Golden Plover	2%	1%	N/A	1%	1%	0%
Grey Plover	1%	N/A	N/A	0%	0%	N/A
Whimbrel	*2%	N/A	N/A	*0%	0%	N/A
Curlew	0%	4%	N/A	4%	0%	1%
Jack Snipe	N/A	0%	N/A	0%	N/A	0%
Snipe	0%	0%	N/A	0%	0%	0%
Common Sandpiper	*2%	N/A	N/A	*0%	0%	N/A
Redshank	N/A	3%	N/A	3%	N/A	1%

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Water Rail	N/A	0%		2		2
Moorhen	0%	0%	3	5	3	5
Coot	0%	0%		1	1	2
Crane	0%	0%		1	4	3
Oystercatcher	0%	0%	1	3	4	4
Lapwing	0%	1%	203	206	6	286
Golden Plover	N/A	1%	80	26		59
Grey Plover	N/A	0%	2			1
Whimbrel	N/A	0%	1			0
Curlew	N/A	1%	3	52		52
Jack Snipe	N/A	0%		1		1
Snipe	N/A	0%	1	2		2
Common Sandpiper	N/A	0%	1			0
Redshank	N/A	1%		32		32

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Five year summary for River Humber - Howdendyke to Whitgift

Table5: National and International importance of the site for each species.

Figures given indicate the percentage of the relevant threshold level in operation during 2022/2023 represented by the five-winter mean of peak counts for the species in question

e.g. 50% would indicate that the five-winter mean of peak counts is half the threshold level. It follows that values of 100% or higher indicate nationally or internationally important numbers of a given species occur on the site.

Where a count is enclosed by parentheses this indicates that it was considered incomplete

(i.e. those parts of the site not visited typically hold at least 25% of the species in question).

(an asterisk indicates that a 50-bird minimum (typically used for designation) has been used rather than 1% of National population)

Species	Autumn peak cf National Threshold	Winter peak cf National Threshold	Spring peak cf National Threshold	Annual peak cf National Threshold	Autumn peak cf International Threshold	Winter peak cf International Threshold
Greenshank	*2%	N/A	N/A	*2%	0%	N/A
Black-headed Gull	15%	2%	1%	8%	17%	2%
Mediterranean Gull	*2%	N/A	N/A	*0%	0%	N/A
Common Gull	2%	1%	0%	2%	1%	0%
Great Black-backed Gull	1%	1%	1%	1%	0%	0%
Herring Gull	0%	0%	0%	0%	0%	0%
Yellow-legged Gull	*4%	N/A	N/A	*2%	0%	N/A
Lesser Black-backed Gull	3%	N/A	1%	2%	1%	N/A

Species	Spring peak cf International Threshold	Annual peak cf International Threshold	Autumn 5yr mean of peaks	Winter 5yr mean of peaks	Spring 5yr mean of peaks	Annual 5yr mean of peaks
Greenshank	N/A	0%	1			1
Black-headed Gull	1%	9%	3400	418	125	1818
Mediterranean Gull	N/A	0%	1			0
Common Gull	0%	1%	140	76	25	106
Great Black-backed Gull	0%	0%	6	7	4	9
Herring Gull	0%	0%	9	3	2	6
Yellow-legged Gull	N/A	0%	2			1
Lesser Black-backed Gull	0%	0%	38		14	26

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**ANNEX 3 –
NOCTURNAL BIRD SURVEY REPORT – SUPPLEMENTARY DATA
(NOVEMBER-DECEMBER 2024) (Separate document)**

Helios Renewable Energy Project

on behalf of Enso Green Holdings D Limited

Annex 3: Validation Nocturnal 2024 Ornithological Survey Report



Document Control				
Project Name:		Helios Renewable Energy Project		
Project Number:		EnsoE-517-1435		
Report Title:		Annex 3: Validation Nocturnal 2024 Ornithological Survey Report		
Issue	Date	Notes	Prepared	Reviewed
V1	07/01/2025	Draft Issue	K Love <i>MSc</i> Ecologist	Z Hinchcliffe <i>MRes BSc (Hons.)</i> Senior Ecologist

This report has been prepared in accordance with the terms and conditions of appointment for the Bird Surveys [on request]. Avian Ecology Ltd. (6839201) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

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1 INTRODUCTION

1.1 Project Background

- 1.1.1 Avian Ecology Ltd. (AEL) was commissioned during 2024 to undertake validation autumn nocturnal ornithological survey in relation to the application of a renewable energy generating project, consisting of ground-mounted solar photovoltaic ('PV') arrays, together with on-site energy storage, associated infrastructure, and grid connection (the 'Project'). The Project is located on land to the south-west of the village of Camblesforth and to the north of the village of Hirst Courtney in North Yorkshire (the 'Site').
- 1.1.2 The objectives of this report are to:
- Provide baseline validation information on the current ornithological features within the Site and suitable surrounding area (survey area defined below in Section 2.1);
 - Identify the presence of notable bird species within the Site and suitable surrounding area; and,
 - Assess the importance of the non-breeding bird assemblage within the Site and suitable surrounding area.
- 1.1.3 Only common bird species names are referred to within the main text of this Annex.
- 1.1.4 This Report should be read in conjunction with **Appendix 8.2 Ornithological Survey Report** produced by AEL; which details previous ornithology surveys conducted between October 2021 and March 2024, including three preceding nocturnal surveys conducted between January and March 2024.

1.2 Site Overview

- 1.2.1 The Site, as illustrated in **Appendix 8.2**, comprises predominantly multiple fields containing agricultural land, located at the approximate central grid reference of SE 6323 2629.
- 1.2.2 The Site predominantly comprises arable fields marked by a series of wet and dry ditches, species-poor hedgerows, roads, woodlands, and trees. In the wider context, the Site is surrounded by further extensive areas of farmland and areas of woodland. The most north-eastern fields within the Site (Field 374) are separated from the Drax Power Station by New Road. The south-western field (Field 239) is approximately 4.2km south-west of the Drax Power Station, at its closest point.

2 METHODOLOGY

2.1 Nocturnal Bird Surveys

- 2.1.1 Validation nocturnal bird surveys were carried between November and December 2024, with two surveys conducted in November and one during December. The survey was conducted in all suitable fields within the Site in order to investigate whether there were any notable roosts of birds associated with the SPAs/Ramsars during nocturnal high tides at the Humber Estuary.
- 2.1.2 Target Species consisted of wetland birds such as waders, waterfowl and gulls and Annex 1¹/Schedule 1² raptors and owls, including all those which represent qualifying features of the Lower Derwent

¹ Available at: <https://lists.nbnatlas.org/speciesListItem/list/dr2401> (Accessed 3rd January 2025)

² Available at: <https://www.legislation.gov.uk/ukpga/1981/69/schedule/1> (Accessed 3rd January 2025)

Valley SPA, Lower Derwent Valley Ramsar site, Humber Estuary SPA and Humber Estuary Ramsar site (and corresponding SSSI) (see **Table 1.1**).

- 2.1.3 The survey comprised two pairs of surveyors using a ‘look-see’ methodology (Gilbert *et al.*, 1998³), whereby each field was checked at as many points as practical using Public Rights of Way (PROWs), roads and pre-arranged access along farm tracks. In addition to those habitats within the Site, suitable adjacent fields within 600m of the Site boundary were also included in the survey, including a lake located approximately 220m east of the Site (adjacent to field 339) due to this showing an increased activity of birds during previous daytime surveys (see **Appendix 8.2 Ornithological Survey Report** for further details).
- 2.1.4 Pulsar Lexion and Zeiss Thermal Monocular thermal imaging cameras were used to aid detection of species and where possible record the birds to species level. Where individual birds were unidentifiable due to distance or small size of the species, surveyors used knowledge of behaviour and suitable habitat for these species to make an informed estimate of a species pair e.g., *Pluvialis/Vanellus* wader (Golden Plover or Lapwing).
- 2.1.5 All surveys aimed to be undertaken during a window of approximately three hours before high tide and two hours after high tide to capture the most likely congregations of notable roosting flocks of wetland species.
- 2.1.6 Field surveys were undertaken by B. Clyne (BC), Z. Pannifer (ZP), D. Rouse (DR), S. Viles (SV) and R. Weaver (RW), all of whom are suitably qualified and experienced ornithologists.
- 2.1.7 Survey effort is summarised in **Table 2.1**, with detailed survey conditions presented at the end of this report in **Table A3.2**.

Table 2.1: Nocturnal bird survey effort

Survey Visit	Date	Surveyor	Start Time (24hrs)	End Time (24hrs)	High Tide ⁴ (24hrs)	High Tide Height (m)	Sunset (24hrs)
1	07/11/2024	BC & ZP	18:20	21:30	22:28	4.36	16:18
	08/11/2024	DR & SV	17:10	20:50	23:31	3.98	16:16
2	19/11/2024	BC & ZP	17:00	20:00	21:18	5.40	16:00
	19/11/2024	DR & RW	17:00	20:00	21:18	5.40	16:00
3	03/12/2024	DR & SV	16:30	17:30	20:12	5.29	15:47
	10/12/2024	BC & ZP	17:00	20:00	15:00	4.24	15:45

Limitations

- 2.1.8 Validation nocturnal bird surveys were conducted between November and December 2024 with an attempt to record birds on all suitable field habitats within the Site. PROWs and roads were used to access and view areas of the Site and the use of thermal imaging cameras aided observations. A standard 600m buffer was previously included during daytime surveys because this is the considered maximum distance of visual disturbance (see **Appendix 8.2**), however it is not considered likely to be a relevant for nocturnal surveys. An attempt was therefore made to observe all areas of the Site within 150m. For larger fields, this was not fully possible and an increased presence of brown hare and European rabbits in fields made observation and identification more difficult beyond this distance. No

³ Gilbert G, Gibbons D.W. and Evans J. (1998). *Bird Monitoring Methods*. RSPB Sandy.

⁴ Available at: <https://www.tidetimes.org.uk/goole-tide-times> (Accessed on 3rd January 2025)

large flocks were observed beyond this distance and therefore this was not considered a significant limiting factor. Survey coverage did differ to previous nocturnal surveys conducted, which are fully detailed in **Appendix 8.2**.

- 2.1.9 The survey timings were not fully conducted within the approximate target window of three hours before high tide and two hours after high tide. **Table 2.3** below details the duration of each survey that falls outside this approximate optimal high tide survey period. Although the timings of some surveys were outside the optimal high tide survey period, it is considered that survey effort timings are not a substantial limitation to the assessment with surveys results likely to capture any congregations of notable roosting flocks of wetland species potentially present.

Table 2.3: Nocturnal bird survey effort outside optimal high tide survey period.

Survey Visit	Date	Start Time (24hrs)	End Time (24hrs)	High Tide ⁵ (24hrs)	Duration outside optimal high tide period (mins)	Duration outside optimal high tide period (%)
1	07/11/2024	18:20	21:30	22:28	68	35.8
	08/11/2024	17:10	20:50	23:31	201	91.4
2	19/11/2024	17:00	20:00	21:18	78	43.3
	19/11/2024	17:00	20:00	21:18	78	43.3
3	03/12/2024	16:30	17:30	20:12	42	70
	10/12/2024	17:00	20:00	15:00	180	100

3 RESULTS

3.1 Nocturnal Bird Surveys

- 3.1.1 A total of six Target Species (lapwing, golden plover, woodcock, snipe, grey heron and barn owl) were recorded within the Site during the validation nocturnal bird survey.
- 3.1.2 Incidental records of 11 Target Species (mute swan, wigeon, mallard, teal, moorhen, golden plover, curlew, woodcock, snipe, grey heron and barn owl) were recorded in the wider 600m buffer area including the lake adjacent to field 339). Of these, wigeon, grey heron, mallard and mute swan were recorded on the lake, with wigeon and mute swan exclusively recorded here.
- 3.1.3 Target Species recorded on-Site comprised species in low numbers with no species recorded at over five individuals on any survey visit (lapwing (peak: 5; visit occupancy: 2/3 (66%)); golden plover (peak: 1; visit occupancy: 1/3 (33%)); woodcock (peak: 4; visit occupancy: 2/3 (66%)); snipe (peak: 3; visit occupancy: 2/3 (66%)); grey heron (peak: 1; visit occupancy: 1/3 (33%)); barn owl (peak: 1; visit occupancy: 2/3 (66%)).
- 3.1.4 One of the Target Species recorded on-Site (golden plover) is an alone qualifying feature of the Humber Estuary SPA under article 4.1 and 4.2 of the Directive (79/409/EEC). Additionally, six Target Species (wigeon, mallard, teal, lapwing, golden plover and curlew) are listed on the waterbird assemblage of the Humber Estuary SPA. Of these, only golden plover and lapwing were recorded on-Site.
- 3.1.5 Three of the Target Species recorded (wigeon, teal and golden plover) are alone qualifying features of the Lower Derwent Valley SPA under article 4.1 and 4.2 of the Directive (79/409/EEC). Of these, only

⁵ Available at: <https://www.tidetimes.org.uk/goole-tide-times> (Accessed on 3rd January 2025)

golden plover was recorded on-Site. Additionally, four further Target Species recorded (wigeon, teal, lapwing and golden plover) are listed on the waterbird assemblage of the Lower Derwent SPA. Of these, only lapwing and golden plover were recorded on-Site.

- 3.1.6 One of the Target Species recorded (golden plover) is a qualifying feature of the Humber Estuary Ramsar and two Target Species recorded (wigeon and teal) are qualifying features of the Lower Derwent Valley Ramsar under criterion 6.
- 3.1.7 A total of six species listed as qualifying species (or waterbird assemblage species) of the nearby Lower Derwent Valley SPA/Ramsar and Humber Estuary SPA/Ramsar have therefore been recorded either within the Site and/or 600m buffer zone. These include wigeon, mallard, teal, lapwing, golden plover and curlew.
- 3.1.8 Full results are shown below in **Table 3.1**.
- 3.1.9 Other non-Target Species observed during nocturnal bird surveys comprised low numbers of grey partridge, stock dove, long-eared owl, tawny owl, skylark, song thrush, redwing, fieldfare and bullfinch.

Table 3.1: Target Species recorded within the Site and adjacent Lake

Table 3.1. Target species recorded within the site and adjacent Lake				
Field N°	Target Species	Survey Visits		
		1	2	3
The Site				
7	Woodcock	-	1	-
12	Woodcock	-	-	1
19	Grey heron	-	1	-
20	Woodcock	-	-	1
23	Barn owl	1	-	-
25	Barn owl	-	1	-
201	Golden plover	-	1	-
	Snipe	-	2	-
222	Snipe	2	-	-
	Woodcock	-	-	1
226	Woodcock	-	-	1
229	Snipe	1	-	-
235	Lapwing	-	1	-
236	Lapwing	-	-	5
Incidental records outside the Site (600m buffer zone)				
Lake (adjacent to field 339)	Wigeon	>4	-	>4
	Grey heron	-	4	
	Mallard	-	20	
	Mute swan	-	2	
31	Barn owl	-	-	1
41	Snipe	-	1	1
76	Woodcock	1	-	-
	Barn owl	-	1	-

Field N°	Target Species	Survey Visits		
		1	2	3
77	Woodcock	-	-	1
88	Teal	(2)	-	-
	Moorhen	-	1	-
103	Mallard	-	-	4
	Teal	-	-	2
186	Woodcock	-	-	1 + (1)
196	Curlew	1	-	-
208	Golden plover	7	-	-
337	Woodcock	-	1	-
339	Woodcock	-	1	1
363	Moorhen	1	-	-
	Grey heron	2	-	-
	Woodcock	-	-	1
364	Mallard	8	-	-
	Grey heron	-	1	-
'- refers to no observation in this field during that specific survey. '()' refers to species flying over that are not associated with habitats within the Site.				

BIRD SURVEY EFFORT

Table A3.1: Survey Condition Categorisation for Nocturnal Bird Survey Effort.

Wind Speed		W-Direction	Rain		Cloud Cover		Cloud Height	
Calm	0	Use 16-point Compass	None	0	In eighths e.g.,	3/8	<150m	0
Light air	1		Light Showers	1			150-500m	1
Light breeze	2	N	Heavy Showers	2			>500m	2
Mod. breeze	4	NE	Light rain	3				
Fresh breeze	5	ENE	Heavy rain	4				
Strong breeze	6	E						
Mod. gale	7	Etc	Visibility		Snow		Frost	
Fresh gale	8		Poor	0	None	0	None	0
Strong gale	9		< 1km	1	On site	1	Ground	1
Whole gale	10		>1km	2	High ground	2	All day	2
Storm	11							

Table A3.2: Nocturnal Bird Survey Effort 2024

Date	Surveyor	Start Time (24 hrs)	End time (24 hrs)	Wind Speed	Wind Direction	Rain	Cloud Height	Cloud Cover	Visibility	Frost	Snow	Temperature (°C)
07/11/2024	BC & ZP	18:20	21:30	1	SE	0	2	8/8	2	0	0	Not provided
08/11/2024	DR & SV	17:10	20:50	0	NNE	0	2	5/8	2	0	0	
19/11/2024	BC & ZP	17:00	20:00	0-2	NW-E	0	2	2/8-6/8	2	0-1	0	2
19/11/2024	DR & RW	17:00	20:00									
03/12/2024	DR & SV	16:30	17:30	0	E	0	2	2/8	2	1	0	1.5
10/12/2024	BC & ZP	17:00	20:00	4	NE	0	2	8/8	2	0	0	Not provided

**ANNEX 4 –
SUMMARY OF LANDOWNER CROP PATTERNS.**

Helios Renewable Energy Project

on behalf of Enso Green Holdings D Limited

Annex 4: Summary of Landowner Crop Patterns.

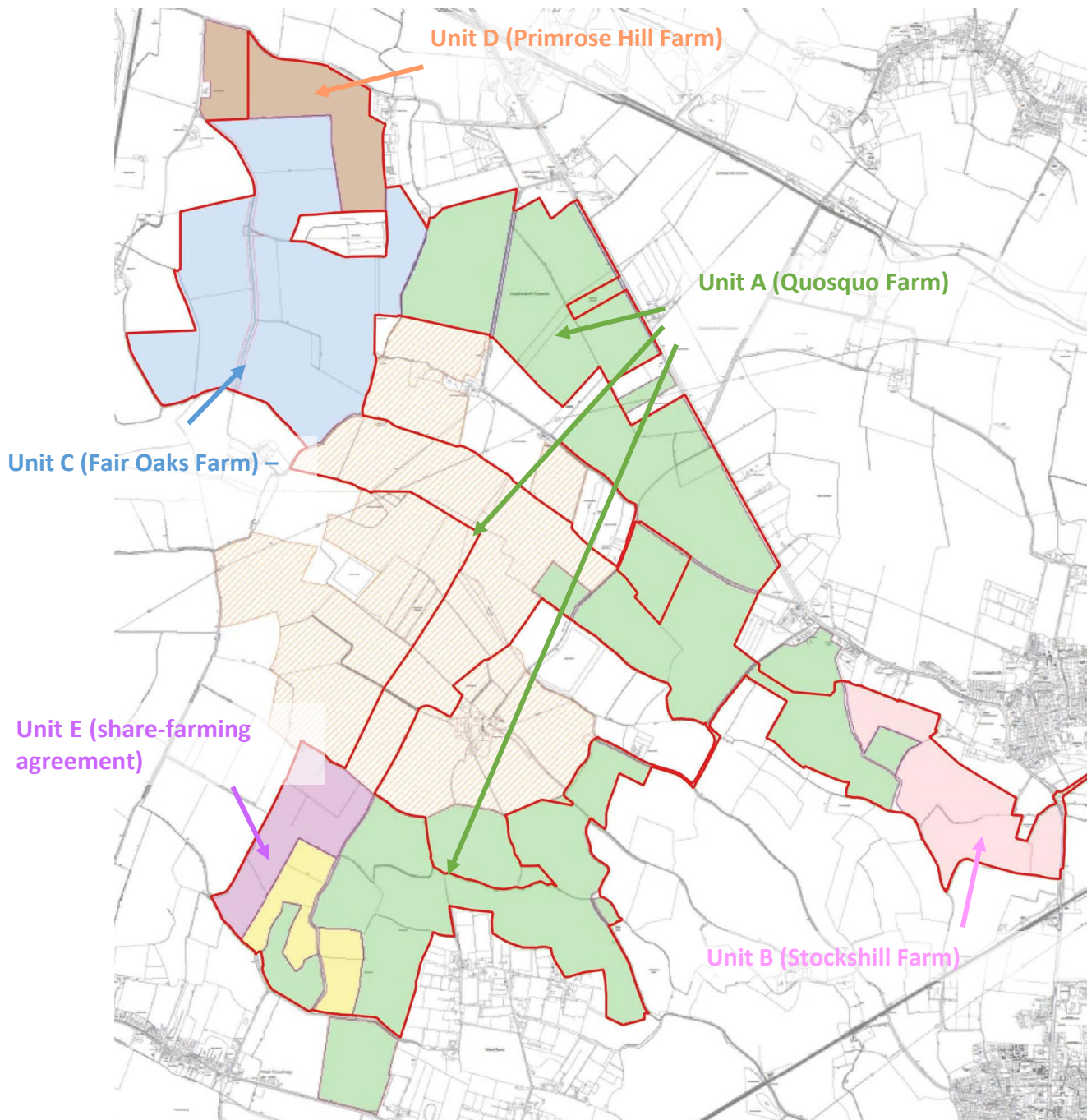


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Issue	Date	Notes	Reviewed
V1	08/01/2025	Draft Issue	Z Hinchcliffe Senior Ecologist <i>MRes BSc (Hons.)</i>

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Historical Crop Patterns

Please see below for a labelled map of each of the landowners and on each subsequent page a breakdown of the historical crop pattern information received.





Unit A (Quosquo Farm)

See below for the previous cropping years and a couple of years in the future for Quosquo Farm.

Crop (acres)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Wheat Milling	44.81	61.68	61.42	53.24	51.38	54.4	37.97	49.13	30.94	34.49	64.15	63.89	55
Wheat Feed	82.58	40.63	37.77	53.78	34.09	50.86	60.01	29.86	86.69	48.33	45.85	9.84	50
Winter Barley	18.12	20.65	33.62		28.07	19.55	11.55	26.51	34.39	41.71	10.4		10
Spring Barley	20.79	17.07	28.04	50.76	42.62	55.24	26.01	23.82	1.7	12.13	21.94	17.96	10
Spring Oats							17.98	46.78	20.09	42.19	3	17.76	10
Oilseed Rape	42.82	37.35	25.86	23.74	60.1	34.63	30.46	11.55	24.2	34.39	45.63	12.85	
Spring Beans	5.82	41.43	12.74	8.65									
Winter Linseed									15.87				
Vining Peas					11.55	17.13	18.01						
Carrots			10.8	17.36			17.39	14.4	7	18.76	6.53	11	
Potatoes	17.92	12.35	3.84	10.56	14.4	10.4	20.79	24.11	10.88	7.55	9.84	15.19	7
Maize			17.07	16.82									
Grasses													
Stewardship	8.61	9.57	9.57	5.82			2.04	6.49	3.74	2.66	33.95	94.19	100
Fallow		1.6	1.6	1.6	0.43	0.43	0.43	10.27	7.14	0.66	1.63	0.24	0.24
Total (acres)	241.47	242.33	242.33	242.33	242.64	242.64	242.64	242.92	242.64	242.87	242.92	242.92	242.24

Unit B (Stockhill Farm)

We were only able to obtain information on crop patterns on Stockhill Farm dating back to 2022 which was when current landowner took over the farm.

Below is the breakdown of the cropping plans and the map of the farm corresponding to each field is on the following page.

Field Number	2897 – 9.28 ha	3274 – 10.44 ha	3829 – 5.15 ha	5839 – 10.18 ha
2022	Potatoes	Winter barley	Winter wheat	Spring barley
2023	Winter wheat	Potatoes	Winter barley	Potatoes
2024	Fodder beet	Maize	Potatoes	Maize

Unit C (Fair Oaks Farm)

See below for the summary of crop patterns dating back to 2015 for Fair Oaks Farm.

Field Name	OS Number	Ha	2025 Proposed	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
50 Acre	7577	19.12	Digestate maize 12.6 /W Wheat 6.52	Sugarbeet	W Barley	S Barley	Carrots	W Wheat 12.6 /Potatoes 6.52	S Beet	W Wheat	OSR	W Wheat - 10ha Trinity deteur / 8.32ha Cruso deteur	Carrots
Mackies	0589	6.92	W Wheat	Sugarbeet	S Barley	W Wheat	OSR	S Barley 5.39	W Wheat	OSR	W Wheat	Fallow? Cover crop?	Parsnips
Bales 20 Acre	6015	8.00	W Wheat	OSR	S Barley	S Beet	W Wheat	OSR 7.25	W Wheat	S Beet	OSR	W Barley	S Wheat
Morritt Hagg	0455	15.27	OSR	SFI - Pollen and Nectar	Carrots 12.1 / W Barley 0.77 / S Barley 1.6	W Wheat 13.45 / S Barley 1.02	S Beet	W Wheat 13.43 / S Barley 1.04	OSR	S Barley	Carrots 14.5 / S Wheat 0.77	W Wheat - Cruso deteur	Sugar Beet
Syke Field	4979	3.98	Digestate MAIZE	W Barley	W Wheat	Rented out (Maize)	Carrots	OSR	S Barley	Parsnips	W Wheat	OSR	W Barley
Lendalls	6133	14.83	W Wheat	Digestate MAIZE 11.23 / Parsnips 3.6	W Wheat	OSR 11.6 / 3.23 S Barley	W Wheat 11.92 / S Barley 2.91	S Beet 2.91 / S Barley 11.3	W Wheat	OSR 11.23 / S Barley 3.6	W Barley 11.23 / Parsnips 3.6	W Wheat - Cruso deteur	OSR
24 Acre	5535	9.68	Carrots	W Wheat	OSR	S Barley		OSR 9.2	S Barley	S Beet	W Wheat	Carrots	OSR
Brackenhill	2094	14.63	Digestate MAIZE	W Wheat	Sugarbeet	W Barley	W Wheat 12.64 / S Barley 1.78	Carrots 13.66	OSR	W Barley	S Wheat	Sugarbeet	W Wheat
Taffys Hut	3051	8.67	S Beet	OSR	W Barley	W Wheat	OSR	S Barley 8.2	Carrots	S Barley	S Wheat 7.17 / Fallow 1.50	Parsnips	W Wheat



Unit D (Primrose Hill Farm)

See below for the historical crop pattern information for the two fields on Primrose Hill Farm.

Field Name	Primrose 30 acre	Beech Trees
Current 2024	Sugar beet	Spring Barley
2023	Spring Barley	Sugar Beet
2022	Winter Wheat	Winter Wheat
2021	Oil Seed Rape	Oil Seed Rape
2020	Winter Wheat	Spring Barley
2019	Sugar Beet	Carrots

Unit E (Share-farming agreement)

Please see below for the historical cropping at the share-farming agreement Unit E.

Note total acreage has varied slightly due to field boundaries being remeasured periodically by the Rural Payments Agency.

Season	Acreage	Crop	Acreage	Crop	Acreage	Crop	Acreage	Crop	Total Acreage
2023/24	83.13	Fallow due to exceptional rainfall							83.13
2022/23	29.21	Winter Wheat	49.57	Winter Barley			4.35	Fallow - set aside	83.13
2021/22	32.82	Winter Wheat	45.96	Winter Barley			4.35	Fallow - set aside	83.13
2020/21	32.82	Oil Seed Rape	45.96	Winter Barley			4.35	Fallow - set aside	83.13
2019/20	32.82	Winter Barley	45.96	Winter Wheat			4.35	Fallow - set aside	83.13
2018/19	32.82	Winter Barley	45.96	Oil Seed Rape			4.35	Fallow - set aside	83.13
2017/18	32.82	Winter Wheat	45.96	Winter Barley			4.35	Fallow - set aside	83.13
2016/17	39.29	Oil Seed Rape	39.49	Winter Wheat			4.35	Fallow - set aside	83.13
2015/16	33.83	Winter Barley	40.75	Oil Seed Rape	4.94	Spring Barley	3.36	Fallow - set aside	82.88
2014/15	45.69	Winter Barley	28.79	Winter Wheat	5.04	Beans	3.36	Fallow - Entry Level Stewardship	82.88
2013/14	45.79	Winter Barley	33.73	Winter Oats			3.36	Fallow - Entry Level Stewardship	82.88
2012/13	79.52	Spring Barley					3.36	Fallow - Entry Level Stewardship	82.88
2011/12	33.73	Winter Wheat	45.79	Winter Oats			3.36	Fallow - Entry Level Stewardship	82.88
2010/11	33.73	Oil Seed Rape	45.79	Winter Barley			3.36	Fallow - Entry Level Stewardship	82.88
2009/10	33.85	Winter Barley	45.81	Winter Wheat	0.17	Fallow - set aside	3.19	Fallow - Entry Level Stewardship	83.02
2008/9	33.85	Spring Barley	45.81	Oil Seed Rape	0.17	Fallow - set aside	3.19	Fallow - Entry Level Stewardship	83.02
2007/8	33.85	Winter Wheat	45.81	Winter Barley	0.17	Fallow - set aside	3.19	Fallow - Entry Level Stewardship	83.02