

Scotland England Green Link 2 - English Onshore Scheme

Environmental Statement
Volume 3

Appendix 7D: Ornithology Report

May 2022

For: National Grid Electricity Transmission

Quality information

Prepared by	Checked by	Verified by	Approved by
Stephen Dixon Principal Ecologist	Richard Wardle Principal Ecologist	Lorraine King Regional Director	Tom Cramond Principal Environmental Consultant

Revision History

Revision	Revision date	Details
0		Initial draft submission to client
1	26/05/2022	FINAL

Table of Contents

7D.1. Introduction.....	1
7D.1.1 Study and Survey Objectives	1
7D.1.2 Defining the Study and Survey Areas.....	2
7D.2. Methodology.....	3
7D.2.1 Desk Study	3
7D.2.2 Field Surveys	4
7D.2.3 Survey Limitations	7
7D.3. Results	8
7D.3.1 Desk Study	8
7D.3.2 Species Records	10
7D.3.3 Breeding Bird Surveys.....	22
7D.3.4 Wintering Bird Surveys	30
7D.3.5 Summary	34
7D.4. Evaluation.....	38
7D.5. References	44
Figures.....	45
Annex 1: Legislation and Planning Policy.....	50
Relevant Legislation.....	50
Guidance.....	51
Planning Policy	51
Annex 2: BTO Data Report.....	53
Annex 3: BTO WeBS Core Count Data.....	54
Annex 4: RSPB Data Search Results Summary.....	55
Annex 5: NEYDC Ornithological Dataset	59
Annex 6: Yorkshire Bird Report (2016 & 2017) Review	67
Annex 7: Breeding Bird Survey Survey Metadata	73
Annex 8: River Hull Headwaters SSSI Breeding Bird Survey data.....	75
Annex 9: Wintering Bird Survey Metadata.....	85
Annex 10: Wintering Bird Survey Results and Analysis.....	86
Annex 11: Confidential Barn Owl Records.....	92

Figures

Figure 1: Onshore Scheme Planning Application Boundary and Ornithological Desk Study Areas.....	45
Figure 2: Drax Breeding and Wintering Bird Survey Area and Proposed Converter Station Location	46
Figure 3: Landfall Breeding and Wintering Bird Survey Area.....	47
Figure 4: River Hull Headwaters SSSI Survey Areas and Notable Bird Territory Centres.....	48

Tables

Table 1: Desk Study Data Sources	3
Table 2: Breeding and Wintering Bird Survey Areas - Habitat Descriptions	6
Table 3: Statutory Designated Sites specifically with bird qualifying species within a 10km radius of the Planning Application Boundary	8
Table 4: Summary of Data Received from Third Party Sources.....	10
Table 5 BTO WeBS data recorded for selected BTO WeBS Count Sites (5-year annual peak counts [5AP] and 5-year mean peak counts [MP]).....	12
Table 6: Summary of NEWS winter counts for the coast between Bridlington and Barmston	15
Table 7: Records of species returned from the RSPB recorded as 'probable breeding' with estimated number of territories.....	17

Table 8: NEYEDC Records Relevant to the EOS.....	18
Table 9: Red Kite records within the Desk Study Area (other than BTO) between 2018-2021.....	21
Table 10: Breeding Status of Birds Recorded at the Drax and Landfall Survey Areas and within the Proposed Converter Station Site.....	24
Table 11: Number of Territories/Breeding Pairs Recorded at SSSI (Kelk Beck) and SSSI (Wansford) Survey Areas	29
Table 12: Drax and Landfall Wintering Bird Survey Results and Analyses for Species of Conservation Concern (refer to footnotes and Annex 10 for a full list of species recorded).....	32
Table 13: Key bird species which have been identified as a result of the desk study and/or the baseline ornithological field surveys	35
Table 14: Evaluation of Ornithological Nature Conservation Interest	39

7D.1. Introduction

The purpose of this Ornithology Report is to assess the ornithological constraints to inform the Ecological Impact Assessment (EclA) of the Scotland to England Green Link 2 (SEGL2) English Onshore Scheme (EOS).

The EOS route is located between Fraisthorpe, East Riding of Yorkshire (approximate OS grid reference TA 16835 63441) and Drax, North Yorkshire (approximate Ordnance Survey (OS) grid reference SE 66811 27434) (refer to **Figure 1**). SEGL2 is a major reinforcement of the electricity transmission system which will provide additional north-south transmission capacity across transmission network boundaries ensuring that green energy is transported from where it is produced to where it is needed. The EOS, i.e. the components of SEGL2 proposed terrestrially in England, will include an underground cable which transition from the subsea cable route at the landfall site at Fraisthorpe and travel for approximately 69 km underground to a new proposed converter station site at Drax, North Yorkshire.

The EOS is described in detail in **Chapter 3: Description of the English Onshore Scheme** of the Environmental Statement (ES).

This report is supported by the following figures:

- Figure 1: Onshore Scheme Planning Application Boundary and Ornithological Desk Study Areas;
- Figure 2: Drax Breeding and Wintering Bird Survey Area and Proposed Converter Station Location;
- Figure 3: Landfall Breeding and Wintering Bird Survey Area; and
- Figure 4: River Hull Headwaters SSSI Survey Areas and Notable Bird Territory Centres.

The report is also supported by a series of Annexes:

- Annex 1: Legislation and Planning Policies;
- Annex 2: British Trust for Ornithology (BTO) Data Report;
- Annex 3: BTO WeBS Core Count Data;
- Annex 4: Royal Society for the Protection of Birds (RSPB) Data Search Results Summary;
- Annex 5: North and East Yorkshire Ecological Data Centre (NEYEDC) Ornithological Dataset;
- Annex 6: Yorkshire Bird Report (2016 & 2017) Review;
- Annex 7: Breeding Bird Survey Metadata;
- Annex 8: River Hull SSSI Breeding Bird Survey Metadata;
- Annex 9: Wintering Bird Survey Metadata;
- Annex 10: Wintering Bird Survey Results and Analysis; and
- Annex 11: Confidential Barn Owl Records.

7D.1.1 Study and Survey Objectives

The objectives of the ornithological desk study and the breeding and wintering bird surveys are as follows:

- Collate and to review third party information relating to the status of breeding and non-breeding birds within and adjacent to the Planning Application Boundary;
- Identify the breeding and wintering assemblages at the location of the proposed converter station site at Drax;
- Sample the wintering and breeding bird assemblages within the Planning Application Boundary at selected survey sites with access available for survey;

- Identify the temporal and spatial distribution and patterns of habitat use by birds associated with designated sites within any areas adjacent to them where there may be potential for direct or indirect effects (the 'zone of influence'¹);
- Identify the frequency and extent to which breeding birds associated with the River Hull Headwaters SSSI occur within the zone of influence; and
- Evaluate the survey results to determine the value of the land within the Planning Application Boundary for breeding and non-breeding birds (including wintering and spring/autumn passage periods) and establish which species/species groups are taken forward for assessment within the EclA.

The requirements to assess the status of, and potential effects of the EOS upon birds is underpinned by legislation and planning policy. Further information on the legislation and relevant planning policies for birds is provided in **Annex 1**.

7D.1.2 Defining the Study and Survey Areas

Within this report the following terminology is used when referring to the geographical areas within which the desk study and the field survey work has been conducting:

- BTO Desk Study Area – the area for which a request was made to British Trust for Ornithology (BTO) in terms of provision of a detailed report setting out species records and evaluations of bird populations; this comprises the Planning Application Boundary plus a 2 km buffer (**Figure 1**);
- Desk Study Area (other than BTO) – the area which was subject to the ornithological desk study for all organisations other than BTO; this comprises the Planning Application Boundary plus a 1 km buffer, extending to 10 km for internationally designated sites (**Figure 1**);
- Drax Breeding and Wintering Survey Area – survey areas within which walkover surveys were carried out during both the breeding and wintering seasons, covering the land at the proposed converter station site, plus the habitats up to a maximum of 500 m around them (refer to **Figure 2**). The survey data generated from these areas directly serve the assessments of the potential impacts of the proposed converter station site, and as a sample data set that is representative of the bird assemblages within the wider countryside, that can be applied to the assessment of potential impacts of the proposed cable route;
- The Converter Breeding and Wintering Bird Survey Area – the breeding and wintering bird survey area for the aforementioned proposed converter station site. This survey area is located within the aforementioned Drax Breeding and Wintering Bird Survey Area and is shown on **Figure 2**. This is the extent of the land encompassing the operational footprint of the proposed converter station site that was the focus of a walked transect route;
- Landfall Breeding and Wintering Bird Survey Area - survey areas within which walkover surveys were carried out during both the breeding and wintering seasons, covering the land at the coastal landfall to the north of Fraisthorpe, plus the habitats up to a maximum of 500 m around them (refer to **Figure 3**). The survey data generated from these areas can be applied to the assessment of potential impacts of the proposed cable route; and
- SSSI (Kelk Beck) and SSSI (Wansford) Breeding Bird Survey Areas – two distinct survey areas encompassing part of a watercourse designated under the River Hull Headwaters SSSI and its surrounding land which were subject to breeding bird surveys. This includes an area of the River Hull at Wansford and an area of Kelk Beck. More information on survey rationale for these survey areas are provided in Section 3.2.1 and the Survey Areas are shown on **Figure 4**.

As set out in the Preliminary Ecological Appraisal Report (Appendix 7A, Ref 6), the various desk study areas and survey areas were based on the EIA Scoping Boundary. The project design has evolved and the area of the EOS has been refined to the planning application boundary. The information presented in this report sets out the baseline of the study areas and surveys areas defined above for context of

¹ The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities (Ref 5).

the populations within the surrounding area of the EOS, but where relevant has been related to the planning application boundary.

7D.2. Methodology

7D.2.1 Desk Study

A desk study was carried out to identify protected and notable bird species potentially relevant to the EOS. A number of third parties were contacted to obtain ornithological data for the 'Desk Study Area (other than BTO)' which included the Planning Application Boundary and a 1 km buffer. BTO also provided a Data Report for the Planning Application Boundary and a 2 km buffer (the 'BTO Desk Study Area'). The desk study data sources and third parties contacted are detailed in Table 1.

Table 1: Desk Study Data Sources

Data Source	Third Party/Source	Data Requested/Reviewed	Study Area (Buffer from Planning Application Boundary)
Wetland Bird Survey (WeBS) data	British Trust for Ornithology (BTO)	Five-year synopsis data for the following count sectors (Figure 1): <ul style="list-style-type: none"> Harbour to Auburn Farm [Bridlington Bay] - BTO Location Code: 38473 Little Kelk Gravel Pit – BTO Location code: 38223 Riverhead to Whinhill [River Hull] – BTO Location Code: 38316 Wansford to Whinhill [River Hull] – BTO Location Code: 38317 	2 km
BTO Data Reports	BTO	The BTO Data Report provides details of the ornithological importance of the BTO Desk Study Area for species of conservation and legislative concern and identifies 'notable species'. The BTO Data Report was based on a 2km buffer (rather than the 1km buffer). The purpose of the wider desk study area relates to a specific aim to gather a suitable number of BTO 1-km Breeding Bird Survey (BBS) squares to better enable the process of characterizing the breeding ornithological baseline.	2 km
Species data search	RSPB	Breeding locations and numbers for Annex I Birds, Schedule 1 species, Birds of Conservation Concern (BoCC) Red List species and NERC Act S41 species for the last 5 year period	1 km
Species data search	NEYEDC	Protected and notable bird records for past 10 years.	1 km
Species data search	Wolds Barn Owl Group	Barn owl (<i>Tyto alba</i>) records.	1 km
Species data search	Wildlife Countryside Partnership	Barn owl (<i>Tyto alba</i>) records.	1 km

Additional information regarding habitat, species and designated sites legislation was obtained for the Scoping Area, including the 1 km buffer, from the following sources:

- Natural England website (www.naturalengland.org.uk) was consulted to identify statutory designated sites of nature conservation interest by using the tool 'Nature on the Map'.
- The 'Multi-Agency Geographic Information for the Countryside' (MAGIC) website (www.magic.gov.uk) was consulted to confirm the location of designated sites of nature conservation interest, as well as to identify areas listed on the habitat inventories.
- Aerial images were studied to identify habitats within the local area.
- The Yorkshire Bird Report 2016 (Ref 11) and the Yorkshire Bird Report 2017 (Ref 12) – A review of species status.
- BTO Non-estuarine Waterbird Surveys (NEWS) Report Online Interface for the coast between Bridlington and Barmston (<https://app.bto.org/webs-reporting/news.jsp>). The results of the following surveys were accessed and reviewed on the NEWS Report Online interface on 14/06/2021: Winter Shorebird Count (WSC) in 1984/85, NEWS I in 1997/98 and NEWS III in 2015/16.
- Relevant information relating to red kites (*Milvus milvus*) in Yorkshire was gathered from a review of the Yorkshire Red Kites website: <http://www.yorkshireredkites.net/misc/sightings-map>, (accessed 18/06/2021).

7D.2.2 Field Surveys

7D.2.2.1 Breeding Bird Survey

7D.2.2.1.1 Introduction

The Drax Breeding Bird Survey Area as shown on **Figure 2**, includes an area focussed on farmland, woodland and wetland (small lake) habitat close to the existing Drax Power Station and includes the locations of the proposed converter station site (the Converter Breeding Bird Survey Area). The Landfall Breeding Bird Survey Area includes the coastal farmland at the landfall and adjacent intertidal habitat; the landfall area has the potential to support foraging and roosting wildfowl and waders which can be particularly sensitive to construction related disturbance.

The SSSI (Kelk Beck) Breeding Bird Survey Area and SSSI (Wansford) Breeding Bird Survey Areas were chosen with the purpose of identifying spatial distribution and patterns of habitat use by breeding bird populations that may be associated with the River Hull Headwaters SSSI designated site, within the SSSI and also adjacent to the SSSI within the zone of influence. The spatial location of these survey areas were informed by the EOS design prior to the 2020 breeding bird season (refer to Section 3.4: Limitations).

The breeding bird survey areas were chosen to provide a representative sample of the habitats along the EOS and include key elements of or potentially sensitive areas along the EOS, i.e. permanent operational land-take associated with the converter station site and temporary construction impacts associated with the landfall, crossing of the cable at the River Hull Headwaters SSSI at both the Kelk Beck (to the west of Little Kelk) and the River Hull at Wansford. Further information relating to the breeding bird survey areas and converter station site surveys are provided in Section 1.2 and on Figures 2,3 and 4. Metadata for the breeding bird surveys is shown in **Annex 7**. Details of the survey methodology used during the breeding bird surveys is provided below.

7D.2.2.1.2 Breeding Bird Survey Methods

A total of five breeding bird survey visits, using an adaptation of the Common Birds Census (CBC) methodology described in Marchant (Ref 7) and Gilbert et al. (Ref 6), were undertaken between April and early July 2021 by AECOM at the Drax Breeding Bird Survey Area, Landfall Breeding Bird Survey Area and SSSI (Kelk Beck) Breeding Bird Survey Area respectively. Five CBC visits were also undertaken at the SSSI (Wansford) Breeding Bird Survey Area, between March and June 2021.

The surveys involved recording all of the birds observed, their locations and activity/behaviour. Contacts with birds (by song, call or sighting) were marked on the survey map using BTO species codes and standard behaviour notation.

Surveys were carried out during the mornings in suitable weather conditions (unrestricted visibility, winds less than Beaufort 5 and not in continuous rain). Afternoons, when bird activity usually drops significantly, were avoided as much as possible; however, some flexibility was allowed to accommodate surveys around periods of bad weather at the surveyor's discretion.

The survey maps were analysed to determine breeding activity for species of conservation concern and/or protected species according to the following categories (Ref 1):

- Possible breeding (Po) – species present during the survey period in possible nesting habitat, but with no indication of breeding. Presumed passage migrants are not included.
- Probable breeding (Pr) – observations of one or more of the following activities during the survey period:
 - singing male heard, or breeding calls heard.
 - pair observed in suitable nesting habitat during the survey period.
 - display or courtship.
 - birds visiting a probable nest site.
 - birds seen to be carrying nesting material.
- Confirmed breeding (Co) – observations of any one or more of the following activities during the survey period:
 - agitated behaviour or anxiety calls from adults suggesting a nest or young close by.
 - distraction display or injury feigning from adults.
 - a nest has obviously been used or eggshells found.
 - adults seen carrying food for young.
 - adults seen carrying faecal sac away from nest site.
 - nest with eggs.
 - nest with young or downy young in the case of waders, game birds etc.
 - recently fledged young.
 - soliciting calls from young birds.
- Non-breeding (Nb) – species present during the survey period however the habitat type within the survey area is unsuitable for the particular species (for example passage migrants).

In order to collate baseline survey data to inform the assessment of potential impacts of the proposed Horizontal Directional Drilling (HDD) cable installation across the River Hull Headwaters SSSI at Kelk Beck and the River Hull at Wansford, the number of breeding pairs or territories for each species recorded was determined from the mapped survey data (following Ref 6). This territory mapping method is based on the observation that many species during the breeding season are territorial, where territories are often determined by conspicuous song, display and territorial disputes with neighbouring conspecifics. The expected outcome of this technique is that mapped registrations fall into clusters, from which territories can be mapped and quantified approximately coinciding with territories.

7D.2.2.2 Wintering Bird Surveys

Wintering bird surveys (using a walkover and recording protocol similar to that of the based on the CBC methodology) were also undertaken with walked transects once per month throughout the periods January – March 2021 and October – December 2021 at the Drax Wintering Bird Survey (which includes the Converter Wintering Bird Survey Area). The Landfall Wintering Bird Survey Area was also subject to monthly wintering bird walkover surveys (October 2020-March 2021). The boundaries of the Drax

and Landfall Wintering Bird Survey Areas are the same as those surveyed for the breeding bird surveys (Figures 2 and 3).

7D.2.2.3 Summary

The bird surveys were designed, collectively, to provide a representative sample of the ornithological features present and to confirm the breeding and non-breeding ornithological baseline within the operational footprint of the EOS. A brief description of the habitats within the respective breeding and wintering survey areas is presented in Table 2.

Table 2: Breeding and Wintering Bird Survey Areas - Habitat Descriptions

Survey Area	Habitat description
Drax Breeding and Wintering Bird Survey Area (Figure 2)	This survey area consists of arable and pastoral fields punctuated by hedgerows, small broadleaved woodlands, and hedgerows with trees. There is a small lake in the southern part of the survey area and planted scrub bordering Drax Power Station is located to the west.
Landfall Breeding and Wintering Bird Survey Area (Figure 3)	This survey area is predominantly under arable cultivation, with open fields divided by occasional hedgerows and a small (0.2 ha) stand of semi-natural broadleaved woodland. The eastern edge of the survey area is defined by soft earth cliffs which give way to the intertidal habitats of Fraisthorpe Beach.
Converter Breeding and Wintering Bird Survey Area	The survey area is predominantly under arable cultivation which is dissected by a line of mature trees and bordered by well-managed managed hawthorn dominated hedgerows and a single-track road.
SSSI (Kelk Beck) Breeding Bird Survey Area (Figure 4)	Most of this survey area is under arable cultivation, with hawthorn hedgerows separating individual fields. Kelk Beck is approximately 5 m wide with 1.5 m high vertical vegetated banks with trees shading the channel in places.
SSSI (Wansford) Breeding Bird Survey Area (Figure 4)	The River Hull traverses across the middle of the survey area, running parallel with the Driffield Canal, West Beck and an adjacent fish farm. The surrounding area is characterised by arable fields, riverside grassland, woodland and fen habitats, with scattered willow scrub along the banks of the river.

7D.2.3 Evaluation Methodology

The method of evaluation that has been utilised has been developed with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater, Coastal and Marine' (Ref 6). These give advice on scoping and carrying out environmental assessments and place appraisal in the context of relevant policies. Data received through consultation, desk-based studies and field-based surveys are used to allow relevant ecological features (i.e. designated sites, ecosystems, habitat and species) of importance (or potential value) to be identified, and the main factors contributing to their value described and related to available guidance.

Ecological features; in this case legally protected species i.e. the great crested newt, may be important for multiple different reasons (e.g. rarity in a particular geographic context; role in habitat connectivity; or a species on the edge of their range). Relevant reasons for which an ecological feature is important are described and considered in order to assign each relevant ecological feature an overall value in accordance with the following geographical frames of reference:

- international (i.e. European);
- national (i.e. England);
- regional (i.e. Yorkshire and the Humber);
- county (i.e. East Riding of Yorkshire/North Yorkshire (Drax area));

- local (i.e. Survey Area and up to 2 km radius); and
- negligible (used where the value is lower than the Local level).

7D.2.4 Survey Limitations

Due to changes relating to the evolving EOS design, the spatial location of the SSSI (Kelk Beck) Breeding Bird Survey Area does not overlap with the Preferred Route Swathe following the design freeze. Nevertheless, the baseline data gathered during the breeding bird surveys does provide an indication of the potential SSSI breeding bird receptors which could be relevant to the temporary HDD construction works at this location.

The number of repeat CBC surveys was reduced to five from the standard of ten that is recommended for monitoring breeding populations over time. This was considered to be the minimum number required for determining breeding numbers and distributions with sufficient reliability to inform the evolving design and impact assessment of the proposed development. The CBC surveys were undertaken in accordance with the timeframes which are detailed in the CBC methodology.

7D.3. Results

7D.3.1 Desk Study

7D.3.1.1 Designated Sites

Statutory designated sites which are relevant to the EclA are detailed in full in **Appendix 7A: Preliminary Ecological Appraisal Report (PEAR)**; those which are notified for ornithological interest features, within a 2 km radius of the Planning Application Boundary², are set out in Table 3 and are shown on Figure 1.

Table 3: Statutory Designated Sites specifically with bird qualifying species within a 10km radius of the Planning Application Boundary

Designated Site	Qualifying Features	Location of Designated Site in relation to the Planning Application Boundary (at closest point)
Greater Wash SPA ³	<p>Article 4.1 qualification: During the breeding season the area supports Annex I populations of little tern (42% of GB breeding population), common tern (<i>Sterna hirundo</i>) (5.1% of GB breeding population) and Sandwich tern (<i>Sterna sandvicensis</i>) (35% of GB breeding population). During the winter, the site also supports populations of overwintering Annex I species: little gull (<i>Hydrocoloeus minutus</i>) and red-throated diver (<i>Gavia stellata</i>) (8.3% of GB non-breeding population).</p> <p>Article 4.2 qualification: Site regularly supports 3,449 Common scoter (<i>Melanitta nigra</i>) (0.6% of biogeographic population), a regularly occurring migratory species not listed in Annex I of the EC Birds Directive is also supported within the site.</p>	2.4 km south-east
Humber Estuary Special Protection Area (SPA) /Ramsar	<p>The site supports and is designated for the following species:</p> <ul style="list-style-type: none"> • avocet (<i>Recurvirostra avosetta</i>); • bar-tailed godwit (<i>Limosa lapponica</i>); • bittern (<i>Botaurus stellaris</i>); • black-tailed godwit (<i>Limosa limosa</i>); • dunlin (<i>Calidris alpina</i>); • golden plover (<i>Pluvialis apricaria</i>); • hen harrier (<i>Circus cyaneus</i>); • knot (<i>Calidris canutus</i>); • little tern (<i>Sternula albifrons</i>); • marsh harrier (<i>Circus aeruginosus</i>); • redshank (<i>Tringa totanus</i>); • ruff (<i>Philomachus pugnax</i>); and • shelduck (<i>Tadorna tadorna</i>), as well as for its waterbird assemblage. 	2.7 km south east
Lower Derwent Valley SPA Ramsar	<p>Article 4.1 Qualification (79/409/EEC): Over winter the area regularly supports and is designated for:</p> <ul style="list-style-type: none"> • Bewick's swan; • ruff; and • golden plover. 	3.1 km north-west

² Analogous with the boundary of the BTO Desk Study Area for this report and also analogous with the Desk Study Area for the SEGL 2 English Onshore Scheme Scoping Report (AECOM, March 2021)

³ Assessment of baseline conditions associated with these SPAs are outlined within the Environmental Appraisal Report which accompanies the Marine Licence application.

Designated Site	Qualifying Features	Location of Designated Site in relation to the Planning Application Boundary (at closest point)
	<p>Article 4.2 Qualification: During the breeding season area regularly supports: Northern shoveler (<i>Anas clypeata</i>) (North-western/Central Europe) 5% of the population in Great Britain. Over winter the area regularly supports: Eurasian teal (<i>Anas crecca</i>) (North-western Europe) 1.5% of the population; Eurasian wigeon (<i>Anas penelope</i>) (Western Siberia/North-western/North-eastern Europe) 0.7% of the population.</p> <p>Article 4.2 Qualification: Bird Assemblage. Over winter the area regularly supports: 40616 waterfowl including: Bewick's swan, Eurasian wigeon, Eurasian teal, golden plover [North-western Europe - breeding], ruff.</p>	
Flamborough and Filey Coast SPA ⁴	<p>ARTICLE 4.2 QUALIFICATION (2009/147/EC): The site regularly supports more than 1% of the biogeographical population of four regularly occurring migratory species; black-legged kittiwake (<i>Rissa tridactyla</i>) (89,040 breeding adults, 2008-2011, 2% North Atlantic), northern gannet (<i>Morus bassanus</i>) (16,938 breeding adults, 2008-2012, 2.6% North Atlantic), common guillemot (<i>Uria aalge albionis</i>) (83,214 breeding adults 2008-2011, 15.6%) and razorbill (<i>Alca torda islandica</i>) (21,140 breeding adults, 2008-2011, 2.3%).</p> <p>The site regularly supports an assemblage of more than 20,000 individual breeding seabirds (average number of individuals: 216,730, 2008-2012), including over 2,000 individual northern fulmar (<i>Fulmarus glacialis</i>).</p>	5.6 km north-east
Thorne and Hatfield Moors SPA	<p>Article 4.1 Qualification (79/409/EEC): During the breeding season the area regularly supports: European Nightjar (<i>Caprimulgus europaeus</i>) 1.9% of the GB breeding population (5 count peak mean 1993, 1995-1998).</p>	8.2 km south
River Derwent Site of Special Scientific Interest (SSSI)	<p>Designated for seven ecological interest features, including the following ornithological features: aggregations of non-breeding birds - Bewick's swan (<i>Cygnus columbianus bewickii</i>) and assemblages of breeding birds.</p>	1.1 km north/north-west
River Hull Headwaters SSSI	<p>The site is designated as nationally important and most northerly chalk river system, designated for multiple features including swamp, woodland, mire, reed-bed, fen meadow and flowing water habitats.</p> <p>The citation also includes reference to the river valley supporting a diverse breeding bird community, including several waders such as lapwing, snipe and redshank, wildfowl, particularly mallard and mute swan, together with yellow</p>	Within (Kelk Beck and River Hull [near Wansford])

⁴ Assessment of baseline conditions associated with these SPAs are outlined within the Environmental Appraisal Report which accompanies the Marine Licence application.

Designated Site	Qualifying Features	Location of Designated Site in relation to the Planning Application Boundary (at closest point)
	wagtail, sedge warbler, reed warbler, reed bunting and many more widely occurring species.	

7D.3.2 Species Records

A summary of the third-party data obtained is provided in Table 4, with more detailed narrative provided in Sections 4.2.1 – 4.2.7. The geographical locations of this data in relation to the EOS are shown on Figure 1. A lack of records for some species does not necessarily mean that they are absent from the area, they simply might not have been recorded. Conversely, a past record for a particular species does not necessarily confirm its current presence or breeding or wintering status within the area.

Table 4: Summary of Data Received from Third Party Sources

Data Source	Data received
BTO Wetland Bird Survey (WeBS) data	Five-year synopsis data for each of the count sectors for which data were requested
BTO Data Report	BTO Data report for BTO Desk Study Area
RSPB	Protected/notable bird records from the last 5 years.
NEYEDC	Bird records for the Desk Study Area (for the past 10 years)
Wolds Barn Owl Group	No response
Wildlife Countryside Partnership	No response

The EOS route has, for the purposes of presenting baseline results and assessment, been divided arbitrarily into four sections (Figure 1). These are (from northeast to southwest):

- **Section 1** - from the coastal landfall to just east of the village of Bainton;
- **Section 2** - from just east of the village of Bainton to Market Weighton;
- **Section 3** - from Market Weighton to the River Ouse; and
- **Section 4** - from the River Ouse to the Drax Substation, which includes the proposed converter station site.

7D.3.2.1 BTO Data Report

BTO provided a BTO Data Report for the BTO Desk Study Area, which is included in full in **Annex 2** and referred to as 'BTO (2021)' herein; the report was compiled by BTO on 28th June 2021.

In terms of site importance, BTO calculate the percentage of local, regional or national range found in the vicinity of the site. BTO (2021) defines 'notable species' as those for which percentage range is at least twice the site's percentage size. To supplement these results BTO undertake a similar exercise using relative abundance data which can help to highlight species for which the site and its vicinity is a particular hotspot of locally, regionally or nationally high density. The relevant notable species identified in BTO (2021), in terms of national (Great Britain) and regional (East Riding of Yorkshire & North Yorkshire) importance for Annex 1, Schedule 1, BoCC Red and NERC S41 species, are detailed below.

Nationally notable species in terms of abundance for Great Britain, which are relevant to the ornithological assessment, are as follows: marsh harrier (breeding & wintering), corn bunting (breeding & wintering), grey partridge (breeding & wintering), quail (breeding), barn owl (breeding & wintering), willow tit (breeding & wintering), tree sparrow (breeding & wintering), yellow wagtail (breeding abundance), reed bunting (breeding & wintering), golden plover (wintering) and yellowhammer (wintering).

Regionally notable species in terms of abundance, which are considered relevant to this assessment, are as follows: quail (breeding), grey partridge (breeding & wintering), turtle dove (breeding), marsh harrier (breeding), red kite (breeding), barn owl (breeding), hobby (breeding), willow tit (breeding & wintering), marsh tit (wintering), yellow wagtail (breeding), corn bunting (breeding & wintering), reed bunting (breeding & wintering), Bewick's swan (wintering), whooper swan (wintering), sanderling (wintering), golden plover (wintering), peregrine (wintering), skylark (wintering), house sparrow (wintering), tree sparrow (wintering) and linnet (wintering).

7D.3.2.2 BTO WeBS Core Count Data

BTO provided WeBS Core Count data for four of the seven Count Sites for which data was requested. Data was not obtained for the remaining three sites due to the only available data being historical i.e. more than ten years old. The Count Sites for which data were obtained are:

- Harbour to Auburn Farm (Bridlington Bay),
- Little Kelk Gravel Pit,
- Riverhead to Whinhill (River Hull), and
- Wansford to Whinhill (River Hull).

The locations of these Count Sites are shown in Figure 1. The WeBS Core Count data received from BTO is shown in full in **Annex 3** and is summarised in Table 5 below.

A number of Annex 1, Schedule 1 species and Red or Amber Listed species have been recorded in one or more of the respective WeBS Count Sites. The 5 - year mean peak counts for each all species returned from the BTO WeBS data request are shown in Table 5 below.

Table 5 BTO WeBS data recorded for selected BTO WeBS Count Sites (5-year annual peak counts [5AP] and 5-year mean peak counts [MP])

Species	Latin Name	Conservation Status	Harbour to Auburn Farm (Bridlington Bay)		Little Kelk Gravel Pit		Riverhead to Whinhill (River Hull)		Wansford to Whinhill (River Hull)	
			5AP	MP	5AP	MP	5AP	MP	5AP	MP
Black-headed gull	<i>Chroicocephalus ridibundus</i>	Amber	86 Jan 2015/16	60	n/a	n/a	180 Feb 2019/20	112	11 Feb 2018/19	9
Common gull	<i>Larus canus</i>	Amber	9 Nov 2015/16	2	n/a	n/a	2 Dec 2019/20	1	2 Dec 2019/20	1
Coot	<i>Fulica atra</i>		n/a	n/a	1 Dec 2019/20	0	n/a	n/a	n/a	n/a
Cormorant	<i>Phalacrocorax carbo</i>		29 Feb 2018/19	12	1 Dec 2018/19	0	37 Dec 2019/20	19	81 Jan 2019/20	41
Dunlin	<i>Calidris alpine</i>	Red	45 Jan 2015/16	25	n/a	n/a	n/a	n/a	n/a	n/a
Gadwall	<i>Mareca strepera</i>	Amber	n/a	n/a	3 Feb 2018/19	1	3 Jan 2019/20	2	2 Feb 2018/19	1
Great Black-backed gull	<i>Larus marinus</i>	Amber	51 Nov 2016/17	31	n/a	n/a	n/a	n/a	1 Dec 2019/20	1
Great crested grebe	<i>Podiceps cristatus</i>		19 Feb 2018/19	4	n/a	n/a	n/a	n/a	n/a	n/a
Great white egret	<i>Ardea alba</i>	Annex 1, Amber	n/a	n/a	n/a	n/a	n/a	n/a	1 Feb 2019/20	1
Green sandpiper	<i>Tringa ochropus</i>	Sch 1, Amber	n/a	n/a	n/a	n/a	1 Jan 2019/20	1	3 Dec 2019/20	2
Grey heron	<i>Ardea cinerea</i>		n/a	n/a	1 Dec 2018/19	1	2 Feb 2019/20	2	43 Jan 2019/20	34
Greylag goose (re-established) British/Irish	<i>Anser answer</i>	Amber	1 Feb 2018/19	0	34 Feb 2019/20	9	7 Jan 2019/20	4	13 Feb 2018/19	7
Herring gull	<i>Larus argentatus</i>	S41, Red	260 Jan 2015/16	170	n/a	n/a	26 Feb 2019/20	16	3 Jan 2019/20	3
Knot	<i>Calidris canutus</i>	Amber	3 Dec 2015/16	1	n/a	n/a	n/a	n/a	n/a	n/a
Lapwing	<i>Vanellus vanellus</i>	S41, Red	n/a	n/a	n/a	n/a	n/a	n/a	7 Feb 2018/19	4

Species	Latin Name	Conservation Status	Harbour to Auburn Farm (Bridlington Bay)		Little Kelk Gravel Pit		Riverhead to Whinhill (River Hull)		Wansford to Whinhill (River Hull)	
			5AP	MP	5AP	MP	5AP	MP	5AP	MP
Lesser black-backed gull	<i>Larus fuscus</i>	Amber	2 Jan 2017/18	0	n/a	n/a	n/a	n/a	n/a	n/a
Little egret	<i>Egretta garzetta</i>	Annex 1	n/a	n/a	n/a	n/a	5 Dec 2019/20	4	6 Feb 2019/20	4
Little grebe	<i>Tachybaptus ruficollis</i>		n/a	n/a	2 Jan 2018/19	1	4 Dec 2019/20	3	4 Jan 2019/20	3
Mallard	<i>Anas platyrhynchos</i>	Amber	36 Jan 2015/16	22	82 Dec 2019/20	58	78 Jan 2019/20	58	7 Feb 2018/29	6
Moorhen	<i>Gallinula chloropus</i>	Amber	n/a	n/a	4 Feb 2018/19	2	20 Jan 2019/20	15	16 Dec 2019/20	11
Mute swan	<i>Cygnus olor</i>		n/a	n/a	2 Jan 2017/18	1	10 Feb 2018/19	8	10 Dec 2019/20	10
Oystercatcher	<i>Haematopus ostralegus</i>	Amber	22 Oct 2016/17	10	n/a	n/a	n/a	n/a	n/a	n/a
Pink-footed goose	<i>Anser brachyrhynchus</i>	Amber	n/a	n/a	n/a	n/a	80 Jan 2019/20	40	n/a	n/a
Pochard	<i>Aythya farina</i>	Red	n/a	n/a	3 Jan 2015/16	1	n/a	n/a	n/a	n/a
Purple sandpiper	<i>Calidris maritima</i>	Sch 1, Red	28 Feb 2015/16	12	n/a	n/a	n/a	n/a	n/a	n/a
Redshank	<i>Tringa tetanus</i>	Amber	78 Feb 2016/17	59	n/a	n/a	n/a	n/a	n/a	n/a
Red-throated diver	<i>Gavia stellate</i>	Annex 1, Sch 1	36 Feb 2018/19	8	n/a	n/a	n/a	n/a	n/a	n/a
Sanderling	<i>Calidris alba</i>	Amber	78 Jan 2015/16	33	n/a	n/a	n/a	n/a	n/a	n/a
Shag	<i>Phalacrocorax aristotelis</i>	Red	10 Nov 2015/16	3	n/a	n/a	n/a	n/a	n/a	n/a
Snipe	<i>Gallinago gallinago</i>	Amber	n/a	n/a	n/a	n/a	n/a	n/a	20 Dec 2019/20	10
Teal	<i>Anas crecca</i>	Amber	n/a	n/a	n/a	n/a	28 Feb 2019/20	18	3 Feb 2019/20	3
Tufted duck	<i>Aythya fuligula</i>		n/a	n/a	3 Dec 2017/18	2	n/a	n/a	n/a	n/a

Species	Latin Name	Conservation Status	Harbour to Auburn Farm (Bridlington Bay)		Little Kelk Gravel Pit		Riverhead to Whinhill (River Hull)		Wansford to Whinhill (River Hull)	
			5AP	MP	5AP	MP	5AP	MP	5AP	MP
Turnstone	<i>Arenaria interpres</i>	Amber	86 Jan 2019/20	62	n/a	n/a	n/a	n/a	n/a	n/a
Water rail	<i>Rallus aquaticus</i>		n/a	n/a	n/a	n/a	1 Jan 2019/20	1	2 Dec 2019/20	1
Whooper swan	<i>Cygnus Cygnus</i>	Annex 1, Sch 1, Amber	n/a	n/a	n/a	n/a	n/a	n/a	1 Dec 2019/20	1
Wigeon	<i>Mareca penelope</i>	Amber	n/a	n/a	n/a	n/a	n/a	n/a	4 Feb 2019/20	2
Woodcock	<i>Scolopax rusticola</i>	Red	n/a	n/a	n/a	n/a	n/a	n/a	1 Feb 2018/19	1

Annex 1 = Species listed on Annex 1 of the EC Birds Directive.
 Sch 1 = Species listed on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended)
 S41 = Species of Principal Importance under Section 41 (England) of the NERC Act (2006)
 Red = Bird species on the Red List of Birds of Conservation Concern 5 (Ref 9)
 Amber = Bird species on the Amber List of Birds of Conservation Concern 5 (Ref 9)
 n/a = not applicable (not recorded)

7D.3.2.3 BTO Non-estuarine Waterbirds Survey

BTO have undertaken four periodic Non-estuarine Waterbird Surveys (NEWS) since 1984, which were focussed on covering the shorelines and coastal waters outside estuaries and inland waters (as these habitats are not covered by the BTO WeBS surveys). The NEWS surveys cover the intertidal shore between the high and low water marks, the sea adjacent to the coast (as far as the surveyor can see) and also the inland areas visible within 100 m of the high-water mark. Details of the surveys are as follows: Winter Shorebird Count (WSC) in 1984/85, the first Non-Estuarine Waterbird Survey (NEWS I) in 1997/98, NEWS II in 2006/07, and NEWS III in 2015/16. The results of these surveys are available on the BTO NEWS Report Online Interface (Ref 4).

Each of the four winter surveys had consistent coverage of the stretch of coast from Bridlington to Barmston which includes the area of the proposed landfall for the EOS. A summary of the NEWS counts for this section of the coast is provided in Table 6.

Table 6: Summary of NEWS winter counts for the coast between Bridlington and Barmston

(BTO NEWS Report Online Interface for East Yorkshire). Refer to footnotes

Survey Species	Latin Name	Conservation Status	1984-85	1997/98	2006/07	2015/16
Bar-tailed godwit	<i>Limosa lapponica</i>	Annex 1, Amber	0	0	0	0
Black-tailed godwit	<i>Limosa limosa</i>	Sch 1, S41, Red	0	0	0	0
Black-throated diver	<i>Gavia arctica</i>	Annex 1, Sch 1, Amber	nc	0	0	0
Brent goose	<i>Branta bernicla</i>	Amber	nc	0	0	0
Common sandpiper	<i>Actitis hypoleucos</i>	Amber	nc	0	0	0
Common Scoter	<i>Melanitta nigra</i>	Sch 1, S41, Red	nc	1-50	0	0
Cormorant	<i>Phalacrocorax carbo</i>		nc	0	0	3-30
Curlew	<i>Numenius arquata</i>	S41, Red	0	0	1-10	0
Dunlin	<i>Calidris alpina</i>	Annex 1, Red	21-40	43-160	2-6	22-40
Eider	<i>Somateria mollissima</i>	Amber	0	11-20	0	0
Golden plover	<i>Pluvialis apricaria</i>	Annex 1	0	0	0	9-12
Goldeneye	<i>Bucephala clangula</i>	Red	0	0	0	0
Goosander	<i>Mergus merganser</i>		nc	0	0	0
Great crested grebe	<i>Podiceps cristatus</i>		nc	1-20	0	4-6
Great northern diver	<i>Gavia immer</i>	Annex 1, Sch 1, Amber	nc	0	0	0
Greenshank	<i>Tringa nebularia</i>	Sch 1, Amber	nc	0	0	0
Grey heron	<i>Ardea cinerea</i>		0	0	0	0
Grey plover	<i>Pluvialis squatarola</i>	Amber	0	1-10	0	0
Herring gull	<i>Larus argentatus</i>	S41, Red	nc	nc	nc	404-1200
Knot	<i>Calidris canutus</i>	Amber	0	0	0	0
Lapwing	<i>Vanellus vanellus</i>	S41, Red	0	0	0	0
Little egret	<i>Egretta garzetta</i>	Annex 1	nc	0	0	0

Survey Species	Latin Name	Conservation Status	1984-85	1997/98	2006/07	2015/16
Little grebe	<i>Tachybaptus ruficollis</i>		nc	0	0	0
Little gull	<i>Hydrocoloeus minutus</i>	Annex 1, Sch 1	nc	0	0	0
Long-tailed duck	<i>Clangula hyemalis</i>	Sch 1, Red	0	0	0	0
Mallard	<i>Anas platyrhynchos</i>	Amber	0	11-20	1-20	21-30
Oystercatcher	<i>Haematopus ostralegus</i>	Amber	1-10	23-80	4-120	3-60
Pink-footed goose	<i>Anser brachyrhynchus</i>	Amber	nc	0	0	0
Purple sandpiper	<i>Calidris maritima</i>	Sch 1, Red	0	2-40	21-30	2
Red-breasted merganser	<i>Mergus serrator</i>	Amber	0	0	0	0
Red-necked grebe	<i>Podiceps grisegena</i>	Red	nc	0	0	0
Redshank	<i>Tringa totanus</i>	Amber	3-90	4-200	42-80	2-20
Red-throated diver	<i>Gavia stellata</i>	Annex 1, Sch 1, Amber	nc	0	0	0
Ringed plover	<i>Charadrius hiaticula</i>	Red	1-30	92-150	8-12	61-90
Sanderling	<i>Calidris alba</i>	Amber	3-120	153-240	44-120	43-100
Scaup	<i>Aythya marila</i>	Sch 1, S41, Red	nc	0	0	0
Shag	<i>Phalacrocorax aristotelis</i>	Red	nc	0	0	0
Shelduck	<i>Tadorna tadorna</i>	Amber	0	0	0	0
Slavonian grebe	<i>Podiceps auritus</i>	Annex 1, Sch 1, Red	nc	0	0	0
Teal	<i>Anas crecca</i>	Amber	0	0	0	0
Turnstone	<i>Arenaria interpres</i>	Amber	1-200	93-180	2-40	82-160
Velvet scoter	<i>Melanitta fusca</i>	Sch 1, Amber	0	0	0	0
Wigeon	<i>Mareca penelope</i>	Amber	0	0	0	0

nc = not included in count
Annex 1 = Species listed on Annex 1 of the EC Birds Directive.
Sch 1 = Species listed on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended)
S41 = Species of Principal Importance under Section 41 (England) of the NERC Act (2006)
Red = Bird species on the Red List of Birds of Conservation Concern 5 (Ref 9)
Amber = Bird species on the Amber List of Birds of Conservation Concern 5 (Ref 9)

7D.3.2.4 Royal Society for the Protection Birds (RSPB)

The RSPB returned records of the following nine species listed on one or more of BoCC Red/Amber List and Section 41 of the NERC Act: corn bunting (*Emberiza calandra*), grey partridge (*Perdix perdix*), lapwing (*Vanellus vanellus*), linnet (*Linaria cannabina*), reed bunting (*Emberiza schoeniclus*), skylark (*Alauda arvensis*), tree sparrow (*Passer montanus*), yellow wagtail (*Motacilla flava*) and yellowhammer (*Emberiza citrinella*).

Table 7 provides a summary for species probably breeding within the Desk Study Area (other than BTO); a summary for all species records returned from the RSPB data request is shown in **Annex 4**.

Table 7: Records of species returned from the RSPB recorded as ‘probable breeding’ with estimated number of territories

Species	Latin Name	Conservation Status	Year	Number of Territories	EOS Route Section break	Approximate location
Corn bunting	<i>Emberiza calandra</i>	Red, S41	2016	1	Section 1	Fraisthorpe
Grey partridge	<i>Perdix perdix</i>	Red, S41	2016	1	Section 1	Fraisthorpe
Lapwing	<i>Vanellus vanellus</i>	Red, S41	2016	2	Section 1	Fraisthorpe
Linnet	<i>Linaria cannabina</i>	Red, S41	2016	3	Section 1	Bracken/Cawkeld
Linnet	<i>Linaria cannabina</i>	Red, S41	2016	6	Section 1	Fraisthorpe
Linnet	<i>Linaria cannabina</i>	Red, S41	2016	4	Section 1	Southburn
Skylark	<i>Alauda arvensis</i>	Red, S41	2016	2	Section 1	Bracken/Cawkeld
Skylark	<i>Alauda arvensis</i>	Red, S41	2016	3	Section 1	Fraisthorpe
Skylark	<i>Alauda arvensis</i>	Red, S41	2016	5	Section 1	Southburn
Yellowhammer	<i>Emberiza citrinella</i>	Red, S41	2016	2	Section 1	Bracken/Cawkeld
Yellowhammer	<i>Emberiza citrinella</i>	Red, S41	2016	6	Section 1	Fraisthorpe
Yellowhammer	<i>Emberiza citrinella</i>	Red, S41	2016	6	Section 1	Southburn
Yellow wagtail	<i>Motacilla flava</i>	Red, S41	2016	1	Section 1	Fraisthorpe
Yellow wagtail	<i>Motacilla flava</i>	Red, S41	2016	1	Section 1	Southburn

S41 = Species of Principal Importance under Section 41 (England) of the NERC Act (2006)
Red = Bird species on the Red List of Birds of Conservation Concern 5 (Ref 9)

7D.3.2.5 North and East Yorkshire Ecological Data Centre

The full ornithological dataset returned from NEYEDC is included in **Annex 5** and includes 126 individual species records. 18 of these records for nine Priority Species are within 1 km of the EOS and are summarised in Table 8. No records were returned within Section 4 (in Selby District Council).

Records received included six Annex 1 species; marsh harrier (*Circus aeruginosus*), hen harrier (*Circus cyaneus*), little egret (*Egretta garzetta*), peregrine (*Falco peregrinus*), red kite (*Milvus milvus*) and little bustard (*Tetrax tetrax*). All of these species, apart from little egret and little bustard, are also Schedule 1 species. A further three Schedule 1 species were returned from NEYEDC; barn owl (*Tyto alba*), hobby (*Falco subbuteo*) and fieldfare (*Turdus pilaris*). Nine S41 NERC species, 16 Red Listed and 11 Amber Listed species were also included in the dataset. The records returned for barn owl are provided in confidential **Annex 11**.

Within the dataset, records of pink-footed goose (*Anser brachyrhynchus*) were returned within the Desk Study Area (other than BTO). A peak count of at least 700 pink-footed geese were returned from Arras (Section 2, Figure 1) in October 2017, whilst in October 2018 a peak count of 250 individuals were returned from Market Weighton (Section 2/3, Figure 1). The precise geographic locations for these respective records are not provided, however there is the potential that they refer to geese utilising farmland within the Desk Study Area (other than BTO); Arras and Market Weighton are located on the boundary of this desk study area.

Table 8: NEYEDC Records Relevant to the EOS

Species	Latin Name	Conservation Status	Year of record	Number of Individuals Recorded	EOS Route Section break	Approximate location
Bullfinch	Pyrrhula pyrrhula	Amber	2011	1	2	Kiplingcotes Chalk Pit
			2019	1	2	Market Weighton
			2012	2	2	Kiplingcotes
Curlew	Numenius arquata	Red, S41	2019	1	3	Eastrington
			2019	1	3	Eastrington
Dunnock	Prunella modularis	Amber	2014	1	3	Howden
			2011	1	2	Rifle Butts Quarry
Fieldfare	Turdus pilaris	Red, Sch1	2017	20 Count of Individuals	2	Bainton
Grey Partridge	Perdix perdix	Red, S41	2012	1	2	Kiplingcotes
			2012	2 Count of Individuals	2	Kiplingcotes
			2011	1	2	Kiplingcotes Chalk Pit
Hen Harrier	Circus cyaneus	Red, S41, Sch1	2014	1	3	Spaldington
Hobby	Falco subbuteo	Sch1	2011	1	3	North Cliffe Wood
House Sparrow	Passer domesticus	Red, S41	2017	1	2	Arras - Kiplingcotes Verge
Kestrel	Falco tinnunculus	Amber	2017	1 Count of Individuals	2	Bainton
			2015	1 Count	2	Market Weighton
Lapwing	Vanellus vanellus	Red, S41	2019	1 Count of Individual	2	Market Weighton
			2018	1 Count of Individuals	2	Market Weighton
			2014	3 Count of Pair	3	Howden
Linnet	Linaria cannabina	Red	2017	1	2	Arras - Kiplingcotes Verge
			2019	1 Count of Pair	2	Market Weighton
			2011	1	2	Kiplingcotes Chalk Pit
Little Bustard	Tetrax tetrax	A1	2015	1 Count of Individuals	1	Fraisthorpe
Little Egret	Egretta garzetta	A1	2016	2 Count	1	Wansford

Species	Latin Name	Conservation Status	Year of record	Number of Individuals Recorded	EOS Route Section break	Approximate location
Mallard	Anas platyrhynchos	Amber	2014	1	3	Howden
Marsh Tit	Poecile palustris	Red	2019	3 Count of Pair	3	North Cliffe Wood
			2015	1 Count of Individuals	3	North Cliffe Wood
			2012	1 Count of Individuals	2	Kiplingcotes
			2012	1	2	Kiplingcotes
			2011	1	2	Rifle Butts Quarry
Mistle Thrush	Turdus viscivorus	Red	2011	1	2	Kiplingcotes Chalk Pit
Peregrine	Falco peregrinus	A1, Sch1	2019	1 Count of Male	2	Market Weighton
Pink-footed Goose	Anser brachyrhynchus	Amber	2018	250 Count of Individuals	2	Market Weighton
			2018	35 Count of Individuals	2	Market Weighton
			2018	30 Count of Individuals	2	Market Weighton
			2017	700+ Count of Individuals	2	Gardham
			2017	500+ Count of Individuals	2	Arras
			2017	700+ Count of Individuals	2	Arras
Red Kite	Milvus milvus	A1, Sch1	2019	1 Count of Individual	2	Sancton
			2019	1 Count of Individual	2	Market Weighton
			2019	1 Count of Pair	2	Market Weighton
			2019	1 Count of Individual	2	Market Weighton
			2019	1 Count of Individual	2	Market Weighton
			2018	1 Count of Individual	2	Market Weighton
			2018	1 Count of Individuals	2	Market Weighton
			2018	1 Count of Individuals	2	Market Weighton
			2018	1 Count of Individuals	2	Market Weighton
			2018	1 Count of Individuals	2	Market Weighton
			2017	1 Count of Individuals	2	Market Weighton
			2017	1 Count of Individuals	2	Market Weighton
			2017	1 Count of Individuals	2	Market Weighton
			2017	1 Count of Individuals	2	Market Weighton

Species	Latin Name	Conservation Status	Year of record	Number of Individuals Recorded	EOS Route Section break	Approximate location
			2016	1 Count of Individuals	2	Market Weighton
			2016	1 Count of Individuals	2	North Cliffe
			2015	2 Count of Individuals	3	A1034, Market Weighton
			2014	1	3	Howden
			2012	1	2	Market Weighton
Redstart	<i>Phoenicurus phoenicurus</i>	Amber	2011	1	2	Kiplingcotes Chalk Pit
Skylark	<i>Alauda arvensis</i>	Red, S41	2011	1	2	Rifle Butts Quarry
			2014	1	3	Howden
Song Thrush	<i>Turdus philomelos</i>	Red	2011	1	2	Rifle Butts Quarry
			2011	1	2	Kiplingcotes Chalk Pit
Stock Dove	<i>Columba oenas</i>	Amber	2019	1 Count of Individual	3	Welham Bridge
			2011	1	2	Rifle Butts Quarry
Swift	<i>Apus apus</i>	Amber	2012	50 Count	1	Lund
			2012	1 Count of Nest	1	Lund
			2012	7 Count	1	Lund
			2012	20 Count	2	Market Weighton
			2012	1 Count of Nest	1	Hutton Cranswick
			2012	5 Count	1	Hutton Cranswick
			2011	4 Count of Nest	1	Hutton
			2011	7 Count	1	Hutton Cranswick
			2011	20 Count	1	Hutton
Tawny Owl	<i>Strix aluco</i>	Amber	2019	2 Count of Individuals	2	North Cliffe Wood
Tree Pipit	<i>Anthus trivialis</i>	Red, S41	2019	1 Count of Individual	2	Kiplingcotes Chalk Pit Nature Reserve
			2019	1 Count of Individual	2	Kiplingcotes Chalk Pit Nature Reserve
			2011	1	2	Kiplingcotes Chalk Pit
Tree Sparrow	<i>Passer montanus</i>	Red, S41	2012	3 Count of Individuals	2	Kiplingcotes
Western Marsh Harrier	<i>Circus aeruginosus</i>	Amber, A1, Sch1	2019	1 Count of Individual	2	Market Weighton

Species	Latin Name	Conservation Status	Year of record	Number of Individuals Recorded	EOS Route Section break	Approximate location
		Amber, A1, Sch1	2019	1 Count of Female	2	North Cliffe Wood
Willow Warbler	Phylloscopus trochilus	Amber	2017	1	2	Arras - Kiplingcotes Verge
			2019	1 Count of Male	2	Goodmanham
			2019	1 Count of Individual	2	North Cliffe Wood
			2011	1	2	Rifle Butts Quarry
			2011	1	2	Kiplingcotes Chalk Pit
Woodcock	Scolopax rusticola	Red	2019	1 Count of Individual	2	North Cliffe Wood
			2019	1 Count of Individual	2	North Cliffe Wood
			2018	1 Count of Individuals	2	North Cliffe
Yellow Wagtail	Motacilla flava	Red	2011	1	2	Rifle Butts Quarry
Yellowhammer	Emberiza citrinella	Red, S41	2014	1	3	Howden
			2011	1	2	Kiplingcotes Chalk Pit

7D.3.2.6 Yorkshire Naturalists' Union (YNU)

Most of the records within the respective Yorkshire Bird Reports (Refs 11 and 12) originate from specific sites such as nature reserves and wetlands, many of which are outside the Desk Study Area. The reports contain distribution maps for some species, detailing either distribution over 12 months or summer visitor/breeding distribution April – August.

Records of key species which are considered relevant to the ES have been reviewed and are summarised in **Annex 6**. In this annex, a summary of terminology relating to species status in Yorkshire used in the YNU report has been copied to aid reading.

7D.3.2.7 Yorkshire Red Kites

Red kite sightings within the Desk Study Area (other than BTO) and their approximate locations are shown in Table 9. The approximate locations/geographical reference points listed below are presented on Figure 1.

Table 9: Red Kite records within the Desk Study Area (other than BTO) between 2018-2021

Count	Year	Within 1 km of the EOS	EIA Route Section break	Approximate location
2	2020	No	Section 2	Lund
1	2021	No	Section 2	Middleton-on-the-Wolds
1	2021	No	Section 2	Middleton-on-the-Wolds
2	2020	No	Section 2	South of Middleton-on-the-Wolds
3	2020	No	Section 2	West of Holme on the Wolds
1	2020	No	Section 2	West of South Dalton
2	2020	No	Section 2	North of Kiplingcotes
1	2021	No	Section 2	Westwood Farm

Count	Year	Within 1 km of the EOS	EIA Route Section break	Approximate location
2	2020	Yes	Section 2	East of Market Weighton
1	2021	Yes	Section 2	East of Market Weighton
2	2020	No	Section 2	East of Market Weighton
1	2021	No	Section 2/3	Market Weighton
8	2021	No	Section 3	Moor End
1	2020	No	Section 3	Moor End
1	2021	No	Section 3	Moor End
1	2021	No	Section 3/4	River Ouse
2	2020	No	Section 4	Drax

7D.3.3 Breeding Bird Surveys

83 species were recorded within all survey areas during the breeding bird surveys. Irrespective of breeding status these include: six Annex 1 species, eight Schedule 1 species, 11 S41 NERC species, 13 Red List species and 19 Amber List species.

Five of the species recorded were waterfowl encountered only within the coastal habitat at the coastal Landfall Breeding Bird Survey Area: sanderling (*Calidris alba*), oystercatcher (*Haematopus ostralegus*), common tern (*Sterna hirundo*), great black-backed gull (*Larus marinus*) and herring gull (*Larus argentatus*). Metadata for the breeding bird surveys is provided in **Annex 7**.

A brief description of the habitats within the breeding and wintering survey areas is presented in Table 2.

7D.3.3.1 Breeding Bird Surveys in the Drax and Landfall Survey Areas

Species recorded and their breeding status are summarised in Table 10. A brief narrative regarding the key species of conservation concern for each respective survey area is detailed in the paragraphs below.

The following BoCC Red List species and/or S41 species were recorded during the breeding bird survey of the respective survey areas:

- Bullfinch (*Pyrrhula pyrrhula*) [S41] – single birds occasionally recorded from woodland immediately adjacent to Wren Hall Lane and Carr Lane, respectively (indicating possible breeding). There were no records of this species from the Landfall Survey Area;
- Corn bunting [Red List & S41] - Two singing males frequently recorded in coastal fields within the Landfall Survey Area (near the building at Wilsthorpe Cliff building and also from field boundaries north of Auburn Farm), indicating probable breeding. There are no records of this species from the Drax Survey Area;
- Dunnock (*Prunella modularis*) [S41] – frequently recorded and widely distributed in Drax Survey Area as a probable breeding species, favouring woodland and hedgerow habitat. There are no records of this species from the Landfall Survey Area;
- Herring gull [Red List & S41] – non-breeding birds recorded in small numbers overflying or loafing/foraging on the beach/coastal fields in the Landfall Survey Area. There are no records of this species from the Drax Survey Area;
- Linnet (*Linaria cannabina*) [Red List & S41] – a singing male recorded from a hedgerow near The Old Nursery indicates probable breeding by this species in the Drax Survey Area. Recorded in small numbers in the Landfall Survey Area foraging in coastal fields (flock of 8 the peak count); singing males were recorded in July and this may indicate probable breeding at the Landfall;
- Reed bunting [S41] – a singing male was recorded at a hedgerow near The Old Nursery within the Drax Survey Area in April (a foraging bird was also recorded from the arable land within the proposed converter station site). This indicates probable breeding within the Drax Survey Area. There were no records of this species within the Landfall Survey Area;

- Skylark [Red List & S41] - singing males occasionally recorded at arable land to the north of Carr Lane and to the south and west of Wren Hall, indicating probable breeding at the Drax Survey Area. Singing males were frequently and widely recorded over the extensive areas of arable land within the Landfall Survey Area, indicating probable breeding at this location;
- Song thrush (*Turdus philomelos*) [S41] – singing males occasionally recorded from woodland and hedgerow in the southern part of the Drax Survey Area and also from the woodland next to New Road; indicating probable breeding. There were no records of this species from the Landfall Survey Area;
- Starling (*Sturnus vulgaris*) [Red List & S41] – an overflying adult carrying food indicates confirmed breeding from buildings within the Drax Survey Area. An adult carrying food indicates confirmed breeding by starling at Stackyard Farm complex at the Landfall Survey Area;
- Yellow wagtail [Red List & S41] - peak count of 4 in oil-seed rape arable land near Auburn Beck indicates possible breeding in the Landfall Survey Area. There were no records of this species from the Drax Survey Area; and
- Yellowhammer [Red List & S41] – records of single singing males on separate survey visits in the Hall Lane/Wren Hall/The Old Nursery area within the north-eastern part of the Drax Survey Area indicates probable breeding by a single pair. There were no records of yellowhammer from the Landfall Survey Area.

Notable Amber List species recorded within the Landfall Breeding Bird Survey Area include sanderling (*Calidris alba*); monthly counts from intertidal habitat are: 41 (7th April 2021), 36 (29th April 2021) and 22 (14th May 2021). There were no records of this species during the June and July breeding bird survey visits. The records in April and May correspond to the spring passage period for sanderling.

A number of other BoCC Amber List species were recorded; these species are included in Table 10 below.

7D.3.3.2 Results within the Proposed Converter Station Site

Species recorded and their breeding status within the proposed converter station site boundary, including a 100 m buffer, are summarised in Table 10. This reflects an area within which the construction and/or operation of the converter station has potential to result in direct or indirect disturbance effects on breeding and wintering bird populations. A brief narrative regarding the key species of conservation concern for each respective survey area is detailed in the paragraphs below.

The following BoCC Red List species and/or S41 species were recorded during the breeding bird survey of the Converter Breeding Bird Survey Area:

- Bullfinch [S41] – a single bird was recorded calling on one occasion during the breeding bird surveys, indicating possible breeding.
- Dunnock [S41] – a single bird was recorded on one occasion during the breeding bird surveys, indicating possible breeding.
- Reed bunting [S41] – a single foraging bird was recorded on one occasion during the breeding bird surveys, indicating possible breeding.
- Skylark [Red List & S41] - singing males occasionally recorded, indicating probable breeding.

A number of BoCC Amber List species were recorded. These species are included in Table 10 below.

Table 10: Breeding Status of Birds Recorded at the Drax and Landfall Survey Areas and within the Proposed Converter Station Site

Species	Latin Name	Conservation Status			Survey Areas			Proposed Converter Location		
		BoCC	Sch1	NERC S41	Drax Area	Survey	Landfall Survey Area	Proposed Converter Location	Proposed Location + 100m buffer	Converter + 100m
Blackbird	<i>Turdus merula</i>				Co			Co	Co	
Blackcap	<i>Sylvia atricapilla</i>				Pr				Pr	
Blue tit	<i>Cyanistes caeruleus</i>				Co			Po	Pr	
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber		✓	Po			Po	Pr	
Buzzard	<i>Buteo buteo</i>				Pr		Po		Po	
Canada goose	<i>Branta canadensis</i>				Co				Po	
Carrion crow	<i>Corvus corone</i>				Po		Po	Po	Po	
Chaffinch	<i>Fringilla coelebs</i>				Co		Po	Po	Co	
Chiffchaff	<i>Phylloscopus collybita</i>				Co			Pr	Pr	
Common tern	<i>Sterna hirundo</i>	Amber					Nb			
Collared dove	<i>Streptopelia decaocto</i>				Po					
Coot	<i>Fulica atra</i>				Po					
Corn bunting	<i>Emberiza calandra</i>	Red		✓			Pr			
Duncock	<i>Prunella modularis</i>	Amber		✓	Pr			Po	Pr	
Feral pigeon	<i>Columba livia</i>						Po			
Goldfinch	<i>Carduelis carduelis</i>				Pr		Po	Pr	Pr	
Great Black-backed gull	<i>Larus marinus</i>	Amber					Nb			
Great tit	<i>Parus major</i>				Pr			Po	Po	
Greenfinch	<i>Chloris chloris</i>	Red			Co		-			
Grey heron	<i>Ardea cinerea</i>				Nb		Nb			
Greylag goose	<i>Anser anser</i>	Amber			Po		Nb		Nb	
Herring gull	<i>Larus argentatus</i>	Red		✓			Nb			
House martin	<i>Delichon urbicum</i>	Red			Po		Po	Nb	Nb	
Jackdaw	<i>Coloeus monedula</i>				Po				Pr	
Kestrel	<i>Falco tinnunculus</i>	Amber			Co		Po			
Lesser whitethroat	<i>Curruca curruca</i>				Pr				Pr	
Linnet	<i>Linaria cannabina</i>	Red		✓	Pr		Pr			
Long-tailed tit	<i>Aegithalos caudatus</i>				Po				Po	
Magpie	<i>Pica pica</i>				Po					
Mallard	<i>Anas platyrhynchos</i>	Amber			Po		Po			
Meadow pipit	<i>Anthus pratensis</i>	Amber					Pr			
Mistle thrush	<i>Turdus viscivorus</i>	Red			Pr				Pr	

Species	Latin Name	Conservation Status			Survey Areas			Proposed Converter Location		
		BoCC	Sch1	NERC S41	Drax Area	Survey	Landfall Survey Area	Proposed Converter Location	Proposed Location + 100m buffer	Converter
Moorhen	<i>Gallinula chloropus</i>	Amber			Po					Nb
Mute swan	<i>Cygnus olor</i>				Co					
Nuthatch	<i>Sitta europaea</i>				Po					
Oystercatcher	<i>Haematopus ostralegus</i>	Amber			-		Po			
Pheasant	<i>Phasianus colchicus</i>				Po					Po
Pied wagtail	<i>Motacilla alba</i>				Po		Po			Po
Red-legged partridge	<i>Alectoris rufa</i>				Po		Po	Po		Po
Reed bunting	<i>Emberiza schoeniclus</i>	Amber		✓	Pr			Nb		Nb
Robin	<i>Erithacus rubecula</i>				Co			Pr		Co
Rook	<i>Corvus frugilegus</i>	Amber			Co			Co		Co
Sanderling	<i>Calidris alba</i>	Amber					Nb			
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	Amber					Pr			
Skylark	<i>Alauda arvensis</i>	Red		✓	Pr		Co	Pr		Pr
Song thrush	<i>Turdus philomelos</i>	Amber		✓	Pr					Pr
Starling	<i>Sturnus vulgaris</i>	Red		✓	Co		Co			
Stock dove	<i>Columba oenas</i>	Amber			Po					
Swallow	<i>Hirundo rustica</i>				Po		Po	Nb		Nb
Tufted duck	<i>Aythya fuligula</i>				Po					
Treecreeper	<i>Certhia familiaris</i>				Pr					
Whitethroat	<i>Curruca communis</i>	Amber			Pr		Pr			
Woodpigeon	<i>Columba palumbus</i>	Amber			Pr		Po	Po		Pr
Wren	<i>Troglodytes troglodytes</i>	Amber			Pr		Po	Po		Pr
Yellow wagtail	<i>Motacilla flava</i>	Red		✓			Po			
Yellowhammer	<i>Emberiza citrinella</i>	Red		✓	Pr					Pr

Sch 1 = Species listed on Schedule 1 of the Wildlife and Countryside Act, 1981 (as amended)

S41 = Species of Principal Importance under Section 41 (England) of the NERC Act (2006)

Red = Bird species on the Red List of Birds of Conservation Concern 5 (Ref 9)

Amber = Bird species on the Amber List of Birds of Conservation Concern 5 (Ref 9)

7D.3.3.3 SSSI (Kelk Beck) and SSSI (Wansford) Breeding Bird Survey Areas

A total of 26 bird species of conservation concern (Red List, S41, Schedule 1 and/or species which are features of the SSSI) were either confirmed, probably or possibly breeding within the River Hull Headwaters SSSI within the respective SSSI (Kelk Beck) and SSSI (Wansford) Survey Areas. In total, there were 10 species recorded which had at least one territory within, or immediately adjacent to, the River Hull Headwaters SSSI. A summary of the data is provided in Table 11.

The following Schedule 1 raptors were recorded hunting from within the Wansford (SSSI) Survey Area and referred to non-breeding birds: marsh harrier, hobby and peregrine. Non-breeding marsh harrier was also recorded from the SSSI (Kelk Beck) Survey Area. Records of fieldfare (*Turdus pilaris*) and redwing (*Turdus iliacus*) from March referred to wintering (non-breeding) birds.

Non-breeding species recorded overflying the survey areas included two pink-footed geese (during the March survey visit), seven whooper swan (*Cygnus cygnus*) [during March visit], a single curlew (*Numenius arquata*) and single greylag goose (*Anser anser*).

A summary for all of the species that were recorded during the breeding bird surveys at the River Hull Headwaters SSSI is summarised in **Annex 8**; the survey metadata is provided in **Annex 6**. A summary of the data is provided in Table 11.

Where the evidence recorded during the breeding bird surveys was strong enough to plot a territory, these have been provided on Figure 4. For some species, there was not sufficient evidence to accurately plot a territory, but a summary has been provided in the individual species paragraphs below. Territory maps for the Schedule 1 species (i.e. Cetti's warbler [*Cettia cettia*] and kingfisher) are provided in confidential Figure 4A. Species of conservation concern are as follows:

- Bullfinch [S41] – A single pair confirmed as breeding within the SSSI at the SSSI (Wansford) Survey Area;
- Cetti's warbler [Sch 1] - Two territories were identified within the SSSI (Wansford) Survey Area inside the SSSI boundary (refer to confidential Figure 4A);
- Coot (*Fulica atra*) [SSSI species] – A single pair was confirmed to be breeding within the SSSI (Wansford) Survey Area, but outside the SSSI boundary (records of a pair of adults and chicks) [refer to Figure 4];
- Corn bunting [Red, S41] – A possible 0-1 pairs breeding outside the SSSI within the SSSI (Wansford) Survey Area;
- Dunnock [S41] – A single breeding pair was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. A further three territories were identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary (refer to Figure 4);
- Gadwall (*Mareca strepera*) [SSSI species] – One possible territory was identified within the SSSI (Kelk Beck) Survey Area, inside the SSSI boundary. Individuals were recorded in suitable breeding habitat, but this is weak evidence for breeding on Kelk Beck. A further two territories were identified within the SSSI (Wansford) Survey Area, inside the SSSI boundary (refer to Figure 4);
- Grey wagtail (*Motacilla cinerea*) – [SSSI species] - One or two territories were identified within the SSSI (Kelk Beck) Survey Area but outside SSSI boundary. Two pairs were recorded on the beck on a single visit, but this is insufficient data to map a territory;
- House sparrow (*Passer domesticus*) [Red, S41] - Two colonies were identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. Colonial breeding was recorded at properties on the east side of survey area and farm buildings on the west side of the survey area (refer to Figure 4);
- Kingfisher [Sch 1, SSSI species] – A single territory was identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary (refer to confidential Figure 4A);
- Lapwing [Red, S41, SSSI species] – A single breeding pair was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary (refer to Figure 4). This was recorded on open farmland adjacent to Kelk Beck. A further territory was identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary. This is based on displaying adults recorded on one occasion;

- Linnet [Red, S41] – A single territory was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. This was recorded in a hedgerow alongside a farm track on the western side of the survey area. A further territory was identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary (refer to Figure 4);
- Little grebe (*Tachybaptus ruficollis*) [SSSI species] – A single territory was identified at the SSSI (Wansford) Survey Area, inside the SSSI boundary (refer to Figure 4). This is based on repeat records of the species on ponds and the river channel close to fish-farm;
- Mallard (*Anas platyrhynchos*) [SSSI species] – A single territory was identified within the SSSI (Kelk Beck) Survey Area, inside the SSSI boundary. A further five territories were identified within the SSSI (Wansford) Survey Area, inside the SSSI boundary. This is based on registrations in suitable breeding habitat and presence of juveniles (refer to Figure 4);
- Mistle thrush (*Turdus viscivorus*) [Red] – A single territory was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. This is based on the presence of a singing male within woodland in the north of the survey area (refer to Figure 4);
- Moorhen (*Gallinula chloropus*) [SSSI species] – Nine territories were identified within the SSSI (Wansford) Survey Area, six inside the SSSI boundary and three outside the SSSI boundary. Adults with juveniles were recorded on Driffield Canal. Other territories were based on the repeat observations of adults in suitable breeding habitat (refer to Figure 4);
- Mute swan (*Cygnus olor*) [SSSI species] – Two territories were identified within the SSSI (Wansford) Survey Area, inside the SSSI boundary (refer to Figure 4). Two nests were recorded on the River Hull;
- Oystercatcher [SSSI species] – 0-1 breeding pairs within and outside the SSSI at the SSSI (Wansford) Survey Area;
- Reed bunting [S41, SSSI species] – A single territory was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. This was based on repeat records of singing males on field edge drains east of Kelk Beck. A further three territories were identified within the SSSI (Wansford) Survey Area, inside the SSSI boundary. There was evidence for confirmed breeding at one location only, and the other two territories are based on collective 'probable' breeding evidence (refer to Figure 4);
- Reed warbler (*Acrocephalus scirpaceus*) [SSSI species] – Five territories were within the SSSI (Wansford) Survey Area, three inside the SSSI boundary and two outside the SSSI boundary. This is based on the number of singing males recorded during the surveys;
- Sedge warbler (*Acrocephalus schoenobaenus*) [SSSI species] - Two territories were identified within the SSSI (Kelk Beck) Survey Area, one inside the SSSI boundary and one outside the SSSI boundary. This is based on the number of singing males on Kelk Beck and associated drains. There were a further fifteen territories identified within the SSSI (Wansford) Survey Area, nine inside the SSSI boundary and six outside the SSSI boundary. This is based on the number of singing males present on the watercourse (refer to Figure 4);
- Skylark [Red, S41] – Nine territories were identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. A further seven territories were identified within the SSSI (Wansford) Survey Area, outside the SSSI boundary (refer to Figure 4);
- Song thrush [S41] – One territory was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. A further two territories were identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary. One of these territories is on the margins of the SSSI boundary, but not linked to SSSI habitats (refer to Figure 4);
- Starling (*Sturnus vulgaris*) [Red, S41] – One territory was identified within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary. Breeding was confirmed at this location based on an adult carrying food. There was a further territory identified within the SSSI (Wansford) Survey Area, but outside the SSSI boundary. Breeding was confirmed at this location based on the presence of juveniles seen feeding (refer to Figure 4);
- Tree sparrow [Red, S41] – A single colony was identified in field-edge hedgerows on the western edge of the Kelk Beck Survey Area, but outside the SSSI boundary (refer to Figure 4);
- Yellowhammer [Red, S41] – three pairs were identified outside the SSSI (Kelk Beck) Survey Area. A single pair was identified outside the SSSI Wansford (SSSI) Survey Area (refer to Figure 4); and

- Yellow wagtail [Red, S41, SSSI species] – Two territories were identified on open farmland within the SSSI (Kelk Beck) Survey Area, but outside the SSSI boundary.

Table 11: Number of Territories/Breeding Pairs Recorded at SSSI (Kelk Beck) and SSSI (Wansford) Survey Areas

Species	Latin Name	Conservation Status				Territories/Breeding Pairs			
		BoCC	Sch 1	NERC S41	SSSI Species ⁱ	Kelk Beck		Wansford	
						Within SSSI	Outside SSSI	Within SSSI	Outside SSSI
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber		✓		0	0	1	0
Cetti's warbler	<i>Cettia cetti</i>		✓		✓	0	0	2	0
Coot	<i>Fulica atra</i>				✓	0	0	0	1
Corn bunting	<i>Emberiza calandra</i>	Red		✓		0	0	0	0-1
Dunnock	<i>Prunella modularis</i>	Amber		✓		0	1	0	3
Gadwall	<i>Mareca strepera</i>	Amber			✓	1	0	2	0
Grey wagtail	<i>Motacilla cinerea</i>	Amber			✓	0	1-2	0	0
House sparrow	<i>Passer domesticus</i>	Red				0	2	0	0
Kingfisher	<i>Alcedo atthis</i>		✓		✓	0	0	0	1
Lapwing	<i>Vanellus vanellus</i>	Red			✓	0	1	0	1
Linnet	<i>Linaria cannabina</i>	Red		✓		0	1	0	1
Little grebe	<i>Little Grebe</i>				✓	0	0	1	0
Mallard	<i>Anas platyrhynchos</i>	Amber			✓	1	0	5	0
Mistle thrush	<i>Turdus viscivorus</i>	Red				0	1	0	0
Moorhen	<i>Gallinula chloropus</i>	Amber			✓	0	0	6	3
Mute swan	<i>Cygnus olor</i>				✓	0	0	2	0
Oystercatcher	<i>Haematopus ostralegus</i>	Amber			✓	0	0	0-1	0-1
Reed bunting	<i>Emberiza schoeniclus</i>	Amber		✓	✓	0	1	3	0
Reed warbler	<i>Acrocephalus scirpaceus</i>				✓	0	0	3	2
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	Amber			✓	1	1	9	6
Skylark	<i>Alauda arvensis</i>	Red		✓		0	9	0	7
Song thrush	<i>Turdus philomelos</i>	Amber		✓		0	1	0	2
Starling	<i>Sturnus vulgaris</i>	Red		✓		0	1	0	0
Tree sparrow	<i>Passer montanus</i>	Red				0	1	0	0
Yellow wagtail	<i>Motacilla flava</i>	Red		✓	✓	0	2	0	0
Yellowhammer	<i>Emberiza citrinella</i>	Red		✓		0	3	0	1

ⁱ Species assumed to be supporting the function and integrity of the River Hull Headwater SSSI (the notified features list for the site [<https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003424>] does not include specific ornithological features, however ornithological interest is included in the site citation [<https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003424.pdf>]. Species listed in this table as being reasons for notification of the SSSI are all those named in the citation, plus any species whose habitat preferences include riverine, riparian and wetland habitats).

7D.3.4 Wintering Bird Surveys

67 species were recorded during the wintering bird ornithological surveys undertaken by AECOM during the 2021 winter period. These include: two Annex 1 species, two Schedule 1 species, 11 S41 NERC species, nine Red List species and 21 Amber List species.

Seven of the species recorded were waterfowl encountered only within the coastal habitat at the coastal Landfall Wintering Bird Survey Area: great crested grebe, red-breasted merganser, pink-footed goose, sanderling, oystercatcher, lesser black-backed gull and common gull.

Metadata for the wintering bird surveys is provided in **Annex 9**.

7D.3.4.1 Drax and Landfall Wintering Bird Survey Areas

The complete results of the wintering bird surveys at the Drax and Landfall Survey Areas, in the form of frequency of distribution, peak and mean counts for each respective species recorded, are detailed in the tables within **Annex 10**. Summaries of the results for species of conservation concern are provided in Table 12 and in the paragraphs below.

Two Annex 1 species were recorded during the wintering bird surveys: peregrine, which was first recorded in the Drax Survey Area in March 2021 perching on a pylon to the north of Carr Lane and again in November 2021, in the same arable field containing the pylon. A single little egret was also recorded at a drain in the eastern part of the Drax Survey Area.

The following BoCC Red List species and/or S41 species were recorded during the wintering bird survey of the respective survey areas:

- Bullfinch [S41] – a pair frequently recorded from woodland and hedgerow next to Carr Lane in the Drax Survey Area. There were no records of this species from Landfall Survey Area;
- Curlew (*Numenius arquata*) [Red List & S41] – a single curlew was recorded foraging/loafing within the enclosed coastal grassland adjacent to Auburn Farm in March 2021 within the Landfall Survey Area. There were no records of curlew within the Drax Survey Area;
- Dunnock [S41] – frequently recorded from woodland and hedgerow adjacent to Carr Lane/Wren Hall Lane and the south-east of the Drax Survey Area. There are no records of this species from within the Landfall Survey Area;
- Herring gull [Red List & S41] – flocks of loafing/foraging birds were frequently recorded within the Landfall Survey Area from arable land within and to the north of windfarm and adjacent to Auburn Beck (peak count of 250+ in December 2020). There were no records of this species from the Drax Survey Area;
- House sparrow (*Passer domesticus*) [Red List & S41] – occasionally recorded foraging on arable land near coastal bushes associated with the cliff top and populations likely to be associated with Auburn Farm and/or Stackyard Farm (peak count of 20+ in November) within the Landfall Survey Area. There were no records of this species from the Drax Survey Area.
- Linnet [Red List & S41] – Thirty-one over-flying birds were recorded in March in Drax Survey Area. There were no records of this species from the Landfall Survey Area;
- Mistle thrush (*Turdus viscivorus*) [Red List & S41] – frequently recorded in Drax Survey Area in hedgerow and arable land adjacent to Wren Hall Lane (peak count of two, recorded within the boundary of the proposed converter station site). There were no records of this species from the Landfall Survey Area;
- Reed bunting [S41] – One individual recorded calling in a drain in the south-east of the Drax Survey Area. There were no records of this species from the Landfall Survey Area;
- Skylark [Red List & S41] – individuals were recorded over-flying the Drax Survey Area in February, October and November. A single bird was recorded in arable land within the Landfall Survey Area;
- Song thrush [S41] – two individuals were recorded in a hedgerow adjacent to Wren Hall lane within the Drax Survey Area. There were no records of this species from the Landfall Survey Area;

- Starling (*Sturnus vulgaris*) [Red List & S41] – a small number (four individuals) were recorded overflying the arable field in December at the Drax Survey Area. Flocks of 200+ recorded foraging in arable land to the west of Stackyard Farm within the Landfall Survey Area; and
- Yellowhammer [Red & S41] – one individual was recorded in the arable land within the Drax Survey Area. There were no records of this species from the Landfall Survey Area.

A number of BoCC Amber List species were recorded, including a peak count of 22 sanderling in December 2020 on the intertidal beach habitat within the Landfall Survey Area. Amber listed species are included in Table 12 below, with further details provided in **Annex 10**.

7D.3.4.2 Converter Wintering Bird Survey Area

A summary of the results for species of conservation concern are provided in Table 12 full details are provided in **Annex 10**. The following BoCC Red List species and/or S41 species were recorded during the wintering bird survey within the Converter Wintering Bird Survey Area: bullfinch (S41), dunnock (S41), mistle thrush (Red List & S41) and skylark (Red List & S41).

7D.3.4.3 Incidental AECOM Records for Wintering Waders (Bridlington Bay)

An incidental count of waders between Barmston (>3 km to the south of the planning application boundary) and Bridlington (>2.5 km to the north of the planning application boundary) was made on 11th January 2021 by AECOM; this section of Bridlington Bay therefore includes the planning application boundary as well as the adjacent intertidal habitat.

A total of 10 sanderling were recorded outside the planning application boundary (to the north); there were no records of this species within the planning application boundary. A total of seven turnstone were recorded outside the planning application boundary (to the north); there were no records of this species within the planning application boundary. Further details for this incidental count are provided in **Annex 9** (Table I3).

Table 12: Drax and Landfall Wintering Bird Survey Results and Analyses for Species of Conservation Concern (refer to footnotes and Annex 10 for a full list of species recorded)

Species	Conservation Status	Survey Areas								
		Drax Survey Area (n=6)			Landfall Survey Area (n =6)			Converter Survey Area (n=6)		
		Frg	Peak	Mean	Frg	Peak	Mean	Frg	Peak	Mean
Black-headed gull	Amber	50%	34 (Dec)	6	100%	200+ (Nov)	101+	16.66%	16 (Dec)	2.66
Bullfinch	Amber, S41	66.66%	3 (Dec)	1.33				33.33%	1 (Nov & Dec)	0.33
Common gull	Amber				66.66%	50+ (Dec)	22.5			
Curlew	Red, S41				16.66%	1 (Mar)	0.16			
Dunnock	Amber, S41	66.66%	6 (Feb)	1.83				33.33%	2 (Nov)	0.5
Gadwall	Amber	83.33%	69 (Nov)	27.16						
Goldeneye	Red	33.33%	2 (Dec)	0.5						
Great black-backed gull	Amber				16.66%	1 (Jan)	0.16			
Greenfinch	Red	16.66%	1 (Dec)	0.16						
Greylag goose	Amber				33.33%	500 (Dec)	91.66			
Herring gull	Red, S41				66.66%	250+ (Dec)	99.83			
House sparrow	Red, S41				16.66%	20+ (Nov)	3.33+			
Kestrel	Amber	50%	3 (Feb)	0.833				16.66%	2 (Feb)	0.33
Lesser Black-backed gull	Amber				33.33%	10 (Dec)	1.83			
Linnet	Red, S41	50%	31 (Mar)	5.66						
Little egret	Annex 1	16.66%	1 (Jan)	0.16						
Mallard	Amber	100%	37 (Feb)	16.66						
Meadow pipit	Amber				33.33%	4 (Nov)	1			
Mistle thrush	Red, S41	50%	2 (Feb)	0.66				33.33%	2 (Feb)	0.5
Moorhen	Amber	83.33%	5 (Oct)	2.33				16.66%	1 (Feb)	0.16
Oystercatcher	Amber				50%	37 (Oct)	9.83			
Peregrine	Annex 1, Sch 1	33.33%	1 (Mar & Nov)	0.33						
Pink-footed goose	Amber				16.66%	205+	34.16			
Red-breasted merganser	Amber				16.66%	4 (Feb)	0.66			
Redwing	Amber, Sch 1	50%	3 (Jan)	1.16						
Reed bunting	Amber, S41	0.16	16.66%	1 (Oct)						

Species	Conservation Status	Survey Areas								
		Drax Survey Area (n=6)			Landfall Survey Area (n =6)			Converter Survey Area (n=6)		
		Frg	Peak	Mean	Frg	Peak	Mean	Frg	Peak	Mean
Rook	Amber	50%	35 (Jan)	8.33	66.66%	50 + (Dec, Feb & March)	30.33+	33.33%	20 (Jan)	5.16
Sanderling	Amber				83.33%	22 (Dec)	13.33			
Shoveler	Amber	50%	5 (Nov)	1.5						
Skylark	Red, S41	50%	1 (Feb, Oct, Nov)	0.5				33.33%	1 (Feb & Nov)	0.33
Song thrush	S41, Amber	16.66%	2 (Oct)	0.33						
Sparrowhawk	Amber	16.66%	1 (Nov)	0.16						
Starling	Red, S41	16.66%	4 (Dec)	0.66	66.66%	200+ (Nov & Dec)	76.66			
Stock dove	Amber				16.66%	4 (Nov)	0.66			
Teal	Amber	16.66%	4 (Feb)	0.66						
Wigeon	Amber	66.66%	80 (Jan)	16.5						
Woodpigeon	Amber	100%	120 (Feb)	42	16.66%	500+ (Nov)	83.33+	66.6%	55 (Dec)	10.5
Wren	Amber	100%	4 (Oct & Nov)	2.66				50%	2 (Mar)	0.66
Yellowhammer	S41, Red	16.66%	1 (Nov)	0.16						

7D.3.5 Summary

A summary of the likely status of bird species which have been identified during the desk study and/or the baseline ornithological field surveys undertaken in 2020-21 is provided in Table 13. There is a particular focus on species of conservation concern (i.e. species listed on Annex 1 of the EC Birds Directive; Schedule 1 of the WCA; Red UK List of BoCC; NERC Act S41 species; River Hull Headwaters SSSI species; birds identified by BTO (2021) as being nationally or regionally notable species colonial breeding species (e.g. sand martin); and waterfowl⁵ of conservation concern, which often occur in aggregations and are known to be particularly sensitive to construction related disturbance).

These 'key' species, based on the above criteria, were identified through the initial desk study process and also as result of the baseline field surveys as confirmed present or potentially present within the zone of influence for the construction and operational phase of the EOS; these are therefore relevant to the ornithological assessment.

The respective conservation and legislative status for each of the species detailed below is summarised in Table 13, which identifies, describes and evaluates the key ornithological receptors to be taken forward within the ornithological impact assessment.

⁵ The term waterfowl refers to grebes, cormorants, herons, swans, geese, ducks, rails, waders, gulls, terns, kingfisher.

Table 13: Key bird species which have been identified as a result of the desk study and/or the baseline ornithological field surveys

Bird Species	Conservation Status	Third Party Data Source						Baseline Survey Area				Comments
		BTO Data Report	BTO WeBS Core Counts	BTO NEWS	RSPB	NEYEDC	YNU	Drax Survey Area	Landfall Survey Area	SSSI (Wansford) Survey Area	SSSI (Kelk Beck) Survey Area	
Barn Owl	Sch 1	✓				✓	✓					
Bullfinch	S41, Amber					✓		✓		✓		
Cetti's warbler	Sch1, SSSI species									✓		
Coot	SSSI species		✓					✓		✓		
Corn bunting	S41, Red	✓			✓		✓		✓	✓		
Cuckoo	S41, Red						✓					
Curlew	S41, Red			✓		✓			✓			
Dunlin	Red		✓	✓								
Dunnock	S41, Amber					✓		✓		✓	✓	
Fieldfare	Sch 1, Red					✓				✓		
Gadwall	Amber		✓					✓		✓	✓	
Golden plover	Annex 1	✓		✓								
Greylag goose	SSSI species, Amber		✓					✓	✓	✓	✓	
Grey partridge	S41, Red	✓			✓	✓						
Grey wagtail	SSSI species, Amber									✓	✓	
Hen Harrier	Annex 1, Red					✓						
Hobby	Sch 1	✓				✓					✓	
House sparrow	S41, Red	✓				✓			✓	✓	✓	
Kestrel	Amber					✓						
Kingfisher	Annex 1, Sch 1, SSSI species									✓		
Lapwing	S41, Red, SSSI species		✓		✓	✓	✓			✓	✓	
Linnet	S41, Red	✓			✓	✓	✓	✓	✓	✓	✓	
Little Bustard	Annex 1					✓						
Little Egret	Annex 1					✓						
Little Grebe	SSSI species		✓							✓		
Mallard	SSSI species, Amber		✓	✓		✓		✓	✓	✓	✓	

Bird Species	Conservation Status	Third Party Data Source						Baseline Survey Area				Comments
		BTO Data Report	BTO WeBS Core Counts	BTO NEWS	RSPB	NEYEDC	YNU	Drax Survey Area	Landfall Survey Area	SSSI (Wansford) Survey Area	SSSI (Kelk Beck) Survey Area	
Marsh harrier	Annex 1, Sch 1, Amber	✓				✓	✓			✓	✓	Baseline survey records refer to non-breeding birds
Marsh tit	S41, Red	✓				✓						
Mistle thrush	Red					✓	✓				✓	
Moorhen	SSSI species, Amber		✓				✓			✓	✓	
Mute swan	SSSI species		✓				✓			✓		
Oystercatcher	Amber		✓	✓				✓	✓	✓		
Peregrine	Annex 1, Sch 1	✓				✓	✓	✓		✓		Baseline survey records refer to non-breeding birds
Pink-footed goose	Amber		✓			✓	✓		✓			
Pochard	Red		✓									
Purple sandpiper	Sch 1, Red		✓	✓								
Quail	Sch 1, Amber	✓					✓					
Redshank	Amber		✓	✓								
Redstart	Amber					✓						
Redwing	Sch 1, Amber						✓			✓		
Red kite	Annex 1, Sch 1	✓				✓	✓					A review the Yorkshire Red Kites website confirms presence within the Desk Study Area (other than BTO)
Red-throated diver	Annex 1, Sch 1		✓									
Reed bunting	S41, Amber	✓					✓	✓	✓	✓	✓	
Reed warbler	SSSI species									✓		
Ringed plover	Red			✓								
Sanderling	Amber	✓	✓	✓			✓	✓				
Sedge warbler	SSSI species, Amber									✓	✓	
Skylark	S41, Red	✓			✓	✓	✓	✓	✓	✓	✓	
Song thrush	S41, Amber					✓	✓			✓	✓	

Bird Species	Conservation Status	Third Party Data Source						Baseline Survey Area				Comments
		BTO Data Report	BTO WeBS Core Counts	BTO NEWS	RSPB	NEYEDC	YNU	Drax Survey Area	Landfall Survey Area	SSSI (Wansford) Survey Area	SSSI (Kelk Beck) Survey Area	
Starling	S41, Red							✓	✓	✓	✓	
Stock Dove						✓						
Swift						✓						
Tawny Owl						✓						
Tree Pipit						✓						
Teal	Amber		✓					✓				
Tree sparrow	S41, Red	✓				✓	✓			✓	✓	
Turnstone	Amber		✓	✓								
Turtle dove	S41, Red	✓					✓					
Whooper swan	Annex 1, Sch 1, Amber	✓	✓				✓					
Wigeon	Amber		✓					✓				
Willow tit	S41, Red	✓				✓						
Willow Warbler						✓						
Woodcock						✓						
Yellowhammer	S41, Red	✓			✓	✓	✓	✓		✓	✓	
Yellow wagtail	S41, Red	✓			✓	✓	✓		✓	✓	✓	

7D.4. Evaluation

Table 14 identifies and describes the key ornithological receptors relating to breeding and non-breeding bird populations. The value of each ornithological receptor is derived, applying the approach as outlined in Section 7D.2.3 and using professional judgment, from the results of the 2020/2021 breeding and non-breeding bird surveys. The evaluation also considers the legislative and conservation status of the target species that were recorded with the Survey Area, as well as the value of the habitats within and adjacent to the planning application boundary for the species/species group.

Table 14: Evaluation of Ornithological Nature Conservation Interest

Receptor Site/Habitat/Species	Evaluation Rationale	Value of receptor or Value of site to receptor	Taken Forward to Impact Assessment?
Section 1 - EOS Landfall Location			
Non-breeding (wintering) waders associated with the shoreline, inter-tidal habitat and coastal fields within and adjacent to the planning application boundary (oystercatcher, ringed plover, turnstone, sanderling, dunlin, purple sandpiper, redshank, curlew)	<p>The results of the AECOM field surveys and desk study (including acquisition of BTO WeBS count data and NEWS data) indicate that the shoreline and inter-tidal habitat at Bridlington Bay supports a fairly diverse assemblage of non-breeding (wintering) waders which generally occur in low-moderate numbers during the non-breeding (wintering) season. The results of the AECOM field surveys indicate that the coastal fields are used by small numbers of curlew and oystercatcher (foraging/roosting).</p> <p>Interrogation of the secondary data (BTO NEWS and WeBS Core Counts) indicates that populations of sanderling at Bridlington Bay have, on a single occasion, reached national importance, i.e., the 1997/98 NEWS survey highlights that up to 240 birds were recorded, which would represent 1.2% of the GB wintering population⁶ (Ref 10). The 1% threshold is often used as a minimum threshold for the designation of national importance. However, the results of the AECOM baseline surveys indicate that the intertidal habitat within and adjacent to the planning application boundary is not of national importance for this species (peak count of 41 during the spring passage period). Therefore, a regional conservation value has been assigned for sanderling.</p> <p>Although records of turnstone and purple sandpiper were returned from the desk study, these species were not recorded during the baseline surveys conducted by AECOM. These species prefer rocky shorelines or man-made features (e.g., seawalls), rather than sandy beaches, which is the prevailing intertidal habitat type within and adjacent to the planning application boundary. Numbers of curlew, oystercatcher, ringed plover and redshank, which have been highlighted by the baseline surveys and/or desk study, are small and are of no more than local importance.</p>	County (Sanderling) Local (all other wader species)	Yes (assessed as a separate species group receptor; 'Non-breeding waders at Landfall – Section 1')
Section 1 – Cable Route			
Ornithological Qualifying Features of the River Hull Headwaters SSSI (Wansford and Kelk Beck) – SSSI breeding bird community including Schedule 1 species.	A total of 26 bird species of conservation concern (Red List, S41, Schedule 1 and/or species which are features of the SSSI) were either confirmed, probably or possibly breeding within the respective SSSI (Kelk Beck) and SSSI (Wansford) Survey Areas. In total, there were 10 species recorded which had at least one territory within, or adjacent to the River Hull Headwaters SSSI corridor within the area surveyed. These included up to two territories of Cetti's warbler at the Wansford Survey Area and a single kingfisher territory also at Wansford. Other species which are reference on the SSSI citation which were recorded included sedge and reed warbler, little grebe, mallard, gadwall and yellow wagtail.	County	Yes (assessed as part of River Hull Headwaters SSSI)

⁶ The GB wintering population of sanderling is 20,000 (Ref 10)

Receptor Site/Habitat/Species	Evaluation Rationale	Value of receptor or Value of site to receptor	Taken Forward to Impact Assessment?
	<p>Kingfisher and Cetti's warbler are described as an 'uncommon to scarce resident breeder' an 'uncommon resident breeder' and a 'scarce resident breeder' in Yorkshire, respectively (Refs 11 and 12). According to Woodward et al. (Ref 10) the population of Cetti's warbler in the UK is 3,540 breeding pairs; the range of this species is focused in the south and east of England and south Wales. Regional population data is not available but the two breeding pairs of Cetti's warbler at River Hull SSSI (recorded during the baseline surveys) are unlikely to approach 1% of the regional population occurring in Yorkshire and Humber area combined.</p> <p>The SSSI breeding bird community identified within the River Hull Headwaters SSSI Survey area is recognized to be intrinsic to the overall River Hull SSSI catchment corridor but is not the main reason for designation of the SSSI itself.</p> <p>Whilst it is recognised that two Schedule 1 species and a number of other notable species were recorded, none were recorded specifically within the Application Boundary in numbers that would constitute a significant breeding population at the National (1%) level. As such the River Hull Headwater SSSI breeding bird assemblage within the Application Boundary at considered to be of County value overall.</p>		
All Sections 1 – 4 Cable Route			
Non-breeding Humber Estuary SPA Qualifying Species – golden plover & lapwing	The planning application boundary is located approximately 2.8 km from the Humber Estuary SPA at its closest point (at the southern extremity of the EOS) and approximately 35 km from its furthest point (at Bridlington Bay). Although the planning application boundary is relatively remote in relation to the Humber Estuary SPA there is the potential that arable habitat within or adjacent to the planning application boundary could be utilised by non-breeding populations of golden plover and lapwing which are associated with the SPA. However, the results of the baseline surveys and data search do not indicate that habitat within or adjacent to the planning application boundary is significant in terms of supporting populations that may be associated with the Humber Estuary SPA. The results of the desk study suggest that lapwing and golden plover may occur regularly within the planning application boundary but in small numbers.	Regional	Yes (assessed as part of Humber Estuary SPA/Ramsar)
Humber Estuary SPA Assemblage feature - Pink-footed goose	'Although the Humber Estuary is not designated as an SPA for pink-footed geese, it is of international importance for the species' ⁷ . (Ref 2). Scottish Natural Heritage (SNH) highlight that the core foraging range from roosts during winter is 15-20km (Ref 8). The desk study returned records of foraging pink-footed goose	County	Yes (assessed as part of Humber Estuary SPA/Ramsar)

⁷ Refer to RSPB website: <https://community.rspb.org.uk/placestovisit/blacktoftsands/b/blacktoftsands-blog/posts/a-humber-spectacular>

Receptor Site/Habitat/Species	Evaluation Rationale	Value of receptor or Value of site to receptor	Taken Forward to Impact Assessment?
Pink-footed goose is not specifically listed as forming part of the SPA assemblage on the SPA citation, but this species could be considered to contribute to the waterfowl associated with the SPA assemblage.	<p>from the Market Weighton area (including Arras, which is located approx. 3km to the east of Market Weighton); this area is located within the aforementioned 15-20km zone in terms of the distance from the Humber Estuary internationally designated site at its closest point; a peak count of 700 birds (October, 2017) was returned from the NEYEDC data search. An estimated 27,000 were associated with the Humber in October 2017; this count may therefore represent approximately 2.6% of the Humber Estuary population during in October 2017.</p> <p>The desk study records indicate that the Desk Study Area has been known to occasionally support numbers of foraging pink-footed goose in excess of 1% of the Humber Estuary population (this being the threshold for indicating higher value areas around the Estuary), but habitat suitability is likely to be influenced by annual changes in land use (i.e. crop rotation) and the availability of autumn/winter stubble in terms of agricultural activities (e.g., seasonal timing of ploughing).</p> <p>The arable habitat within and adjacent to the planning application boundary is evaluated as being of County importance to nature conservation, given that it supports numbers of pink-footed goose which can, on occasions, reach in excess of the 1% threshold (of the Humber Estuary population) in terms of the Humber Estuary SPA/ Ramsar/ SSSI. This evaluation has considered the sensitivity map for pink-footed goose, (as detailed in Ref 3), for Humberside and East Yorkshire; this shows greatest sensitivity (broadly analogous to peak counts and regularity of site use) within and to the south of the Humber Estuary, rather than to the north of the Estuary where the EOS is located.</p>		
Red List and/or S41 listed Farmland Bird Breeding Bird Assemblage	A large proportion of the habitat within and adjacent to the planning application boundary consists of arable habitat dissected by hedgerows. These habitat types typically support a diverse assemblage of breeding bird species of conservation concern (including (lapwing, grey partridge, turtle dove, cuckoo, spotted flycatcher, skylark, song thrush, mistle thrush, dunnock, tree sparrow, house sparrow, linnet, starling, yellow wagtail, yellowhammer, reed bunting and corn bunting). The results of the AECOM field surveys and data search confirm that Red List and/or S41 farmland bird species are generally widespread within the Desk Study Area. The populations of these species are likely to be typical in comparison to the populations of Red List species which are associated with the farmland habitat which is ubiquitous throughout North Yorkshire and East Riding of Yorkshire.	Up to County	Yes (included within Breeding Bird Assemblage)
Red List and/or S41 listed Farmland Bird Wintering Bird Assemblage	A large proportion of the habitat within and adjacent to the planning application boundary consists of arable habitat dissected by hedgerows. These habitat types typically support a diverse assemblage of wintering bird species of conservation concern (lapwing, grey partridge, skylark, song thrush, dunnock, tree sparrow, house sparrow, linnet, starling, yellowhammer, reed bunting, corn bunting). The results of the baseline surveys and data search confirm that Red List and or S41 farmland bird species are likely to be generally	County	Yes (assessed as Wintering Bird Assemblage)

Receptor Site/Habitat/Species	Evaluation Rationale	Value of receptor or Value of site to receptor	Taken Forward to Impact Assessment?
	widespread within the Desk Study Area. The populations of these species are likely to be typical in comparison to the populations of Red List/S41 species which are associated with the farmland habitat which is ubiquitous throughout the East Yorkshire of Yorkshire and North Yorkshire region.		
Red List and/or S41 Woodland Breeding and Wintering Bird Assemblages	<p>The results of the baseline surveys and desk study show that the following resident species are present year-round within the woodland habitat which is a localised habitat within the planning application boundary: willow tit, marsh tit, song thrush, mistle thrush, bullfinch and lesser redpoll). Fieldfare is a winter migratory species. Spotted flycatcher and cuckoo are summer migratory breeding species.</p> <p>These species are Red List and/or S41 species and are therefore of high conservation concern. Populations within and adjacent to the planning application boundary are unlikely to reach thresholds for national importance and a Regional value has been assigned to this receptor.</p>	County	Yes (assessed respectively within overall Breeding or Wintering Bird Assemblages)
Other Breeding Schedule 1 species (barn owl, red kite, peregrine, hobby, marsh harrier, quail, .)	<p>The results of the baseline surveys and desk study do not highlight breeding by barn owl, quail, red kite, marsh harrier, peregrine or hobby within the planning application boundary. Whilst suitable breeding habitat for barn owl and quail is present with the planning application boundary this is not considered to represent more than a small proportion of available nesting habitat and features for these species compared to wider regional areas. Any breeding populations of these species which may occur within or adjacent to the planning application boundary are unlikely to be considered significant in terms of the regional population. As such a County value is assigned.</p> <p>Schedule 1 species specifically present /associated with the River Hull Headwaters SSSI (e.g. kingfisher, Cett i's Warbler) are evaluated separately as part of the SSSI breeding bird assemblage.</p>	Up to County	Yes (assessed as a sperate receptor group across all sections of the EOS)
Section 4 - Proposed Converter Station Site			
Breeding and wintering waterfowl assemblage associated with lake south of the proposed converter site.	<p>Diverse assemblage of breeding and wintering dabbling ducks, diving ducks and other waterfowl associated with the lake located approximately 180 m to the south of the proposed converter station site.</p> <p>The lake is well contained and surrounded by mature trees, there is no habitat linkages tot eh converter site and waterfowl recorded would be using habitat present within the converter station site. The lake will be entirely avoided by the EOS and outside the ZoI for these species for indirect effects.</p>	N/A	No Scoped out of assessment based upon distance to and lack of potential indirect effects from the EOS on this receptor.

Receptor Site/Habitat/Species	Evaluation Rationale	Value of receptor or Value of site to receptor	Taken Forward to Impact Assessment?
Red List and/or S41 listed Farmland Bird Breeding and Wintering Bird Assemblage	Land within and immediately adjacent to the proposed converter station site are used by very small numbers and a limited suite of bird species during the respective breeding and non-breeding (wintering) periods. Considering the ubiquity of grassland and woodland/scrub habitat within the surrounding landscape there is no reasonable likelihood that the populations are any more than local value for Red List and/or S41 breeding and wintering birds.	Local	Yes (assessed respectively within overall Breeding or Wintering Bird Assemblages)
Farmland Bird Breeding and Wintering Bird Assemblage (other than Red List and/or S41)	Common and widespread which are not listed on the BoCC Red List and/or S41 species.	Site	No

7D.5. References

Ref 1: Bibby, C.J., N.D. Burgess, and Hill, D.A. (1992) Bird Census Techniques. Academic Press: London

Ref 2: Brides, K., Mitchell, C. and Hearn, R. (2013). Mapping the distribution of feeding Pink-footed Geese in England. A report by the Wildfowl and Wetlands Trust. Downloaded on 15th July 2021 from <https://monitoring.wwt.org.uk/our-work/goose-swan-monitoring-programme/feeding-distributions/>

Ref 3: BTO (2021). The British Trust for Ornithology (BTO) Data Report compiled by BTO on 28th June 2021 as requested by AECOM as part of the desk study for the SEGL2 Scheme.

Ref 4: BTO NEWS Online Interface. Non-estuarine Waterbird Surveys (NEWS) Report Online Interface for the coast between Bridlington and Barmston. Available online at: <https://app.bto.org/webs-reporting/news.jsp>. Accessed June 2021.

Ref 5: CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester).

Ref 6: Gilbert, G., Gibbons, D.W., and Evans, J. (1998). Bird Monitoring Methods - a manual of techniques for key UK species. RSPB, Sandy.

Ref 7: Marchant (1983). Common Birds Census Instructions. British Trust for Ornithology, Tring

Ref 8: Scottish Natural Heritage (2016) Assessing Connectivity with Special Protection Areas (SPAs). SNH/NatureScot guidance, Version 3 – June 2016. Downloaded 15 July 2021 from <https://www.nature.scot/sites/default/files/2018-08/Assessing%20connectivity%20with%20special%20protection%20areas.pdf>

Ref 9: Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at <https://britishbirds.co.uk/content/status-our-bird-populations>.

Ref 10: Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, D.A. & Noble, D. (2020). Population estimates of birds in Great Britain and the United Kingdom. British Birds 113: 69–104.

Ref 11: YNU (2020). Yorkshire Naturalists' Union (YNU) [2020]. The Yorkshire Bird Report 2016. Yorkshire Naturalists' Union.

Ref 12: YNU (2021). The Yorkshire Naturalists' Union (YNU) [2021]. The Yorkshire Bird Report 2017. Yorkshire Naturalists' Union.

Ref 13: Department for Communities and Local Government (2012) National Planning Policy Framework. Published on the Department for Communities and Local Government website: <http://www.communities.gov.uk/>

Ref 14: The East Riding of Yorkshire Biodiversity Action Plan (2010). Published on the East Riding Local Government Website: <https://www.eastriding.gov.uk/EasySiteWeb/GatewayLink.aspx?allid=105217>

Ref 15: Biodiversity Action Plan (2004). Published on the Selby District Council Website: <https://www.selby.gov.uk/biodiversity-action-plan>