FENWICK SOLAR FARM

Fenwick Solar Farm EN010152

Environmental Statement

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Executive Summary

- ES1 Surveys of non-breeding birds were undertaken to determine the presence, assemblage and distribution of non-breeding bird species within the Order limits and identify potential impacts of the Scheme on non-breeding birds.
- ES2 Monthly surveys were undertaken in January and February 2023, September 2023 to March 2024, and August 2024, recording 98 non-breeding bird species. The Order limits and wider Survey Area support a diverse range of habitats, and this reflects the broad suite of species recorded. To inform a focussed impact assessment, the non-breeding waterbird assemblage and non-breeding farmland bird assemblage are of District importance.
- ES3 Concentrations of species were found within the most suitable habitats to support each individual species' needs (i.e. species that require woodland habitat, were found within woodland habitat etc).
- ES4 Of the 98 non-breeding bird species recorded, 61 species meet at least one of a range of criteria relating to conservation importance.
- ES5 No peak counts of any recorded species form a significant proportion (i.e. 1% or more) of the national non-breeding population estimates.
- ES6 The non-breeding populations of farmland birds, including Grey Partridge and Skylark and non-breeding assemblage of waterbirds is of District importance.
- ES7 No other species were recorded in a figure approaching 1% of the county non-breeding population estimates in either Doncaster or South Yorkshire.

1. Introduction

1.1 Background

1.1.1 This report forms a technical appendix to accompany Environmental Statement (ES) Volume I Chapter 8: Ecology [EN010152/APP/6.1]. This report provides information on the presence, distribution and abundance of non-breeding bird species relevant to the Fenwick Solar Farm (hereafter referred to as the 'Scheme'), including the results of project specific surveys.

1.2 The Scheme

- 1.2.1 The Scheme includes three locations (collectively referred to as the 'Order limits'):
 - The land located east of Fenwick and immediately south of the River Went (hereafter referred to as the 'Solar PV Site');
 - b. The land between the Solar PV Site and the existing compound for Thorpe Marsh Substation (hereafter referred to as the 'Grid Connection Corridor'); and
 - c. The land located within the existing compound for Thorpe Marsh Substation (hereafter referred to as the 'Existing National Grid Thorpe Marsh Substation').
- 1.2.2 The Scheme comprises the installation of Solar PV Panels, On-Site Cables, Battery Energy Storage System (BESS) Area, On-Site Substation, Grid Connection Line Drop, Grid Connection Cables, and other supporting infrastructure including fencing, access tracks, drainage, and biodiversity and landscaping enhancements.

1.3 The Order Limits

- 1.3.1 The Solar PV Site is located near the village of Fenwick, approximately 12 kilometres (km) north of Doncaster. It is approximately 407 hectares (ha) in size, centred on the approximate National Grid Reference (NGR) SE 60549 16313.
- 1.3.2 The Grid Connection Corridor is approximately 95 ha in size and 6.3 km in length, stretching from NGR SE 60264 14924 to the Existing National Grid Thorpe Marsh Substation at NGR SE 60605 10009.
- 1.3.3 The Existing National Grid Thorpe Marsh Substation is approximately 6 ha in size and centred on the approximate NGR SE 60537 09736.
- 1.3.4 The Solar PV Site comprises arable and pasture fields with small patches of broadleaved woodlands. The River Went delineates the northern boundary and two large drains running through the eastern part of the Solar PV Site (Fenwick Common Drain and Fleet Drain).
- 1.3.5 The Grid Connection Corridor comprises arable and modified grassland with patches of woodland and Thorpe Marsh Drain crossing at Thorpe in Balne.
- 1.3.6 The Existing National Grid Thorpe Marsh Substation comprises existing substation infrastructure and Open Mosaic Habitat on previously developed land. This area is bound by a railway line to the north and a series of

- waterbodies and woodland which is part of Thorpe Marsh Nature Reserve to the south and west.
- 1.3.7 The Order limits also includes a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. As the works would be limited to temporary traffic signal and banksman control for the period of AIL delivery, no impacts on non-breeding birds are anticipated, and therefore this area is not assessed further.

1.4 Aims and Objectives

- 1.4.1 The aim of this report is to determine the presence, assemblage and distribution of non-breeding bird species within the Survey Area (see Section 3.1).
- 1.4.2 The objectives, therefore, are to:
 - a. Review existing ecological data to identify any records of non-breeding birds occurring within the Study Area (see Section 3.1); and
 - b. Undertake surveys of non-breeding birds to confirm the presence, assemblage and distribution of non-breeding bird species within the Survey Area (see Section 3.1).
- 1.4.3 Combined, this is used to:
 - a. Determine the biodiversity importance of the Order limits for nonbreeding birds; and
 - b. Identify the potential impacts of the Scheme on non-breeding birds and any required mitigation (as presented in **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**).

2. Relevant Legislation, Policy and Guidance

2.1 Legislation

Wildlife and Countryside Act

- 2.1.1 The legislative provisions for the protection of all wild birds in the United Kingdom (UK) are contained primarily in Sections 1 to 7 of the Wildlife and Countryside Act (WCA) 1981 (as amended) (Ref. 1). Under the WCA, a wild bird is defined as any bird of a species that occurs in a wild state as a resident or a visitor to the European Territory of any member state but does not include poultry or (except in relation to the power to grant licences and prohibition on certain methods of killing) any game bird.
- 2.1.2 Reference is not made in this report to species afforded protection under Schedule 1 of the WCA, as the protection measures under the WCA only apply to bird species within the breeding season

Directive of the Conservation of Wild Birds

- 2.1.3 A number of bird species recorded within the UK (including those that are resident, overwintering and migratory) are protected under European legislation through the Directive of the Conservation of Wild Birds (European Union (EU) Birds Directive) (Ref. 1), which lists 193 species, or sub-species, of birds in Annex 1 which are:
 - a. In danger of extinction;
 - b. Are rare, or have restricted local distribution;
 - c. Are vulnerable to specific changes in their habitat; or
 - Require particular attention for reasons of the specific nature of habitat.
- 2.1.4 The Birds Directive was most recently transposed into English law by The Conservation of Habitats and Species Regulations 2017 (as amended) (Ref. 3). Although the UK is no longer a member state of the EU, the 2019 amendments (Ref. 4) to The Conservation of Habitats and Species Regulations 2017 (Ref. 3) make it clear that provisions regarding the protection and designation of Special Protection Areas (SPAs) are maintained. Species listed in Annex 1 are those for which the UK government takes special conservation measures, including the designation of land as SPAs to ensure the survival and reproduction of these species throughout their distributions. These sites are automatically included within the National Site Network which is a network of core breeding and resting sites that are protected for rare and threatened species.

2.2 Priority Species

2.2.1 In England, the Natural Environment and Rural Communities (NERC) Act (Ref. 5) requires the Secretary of State for Environment, Food and Rural Affairs to publish and maintain a list of habitats and species that are of 'principal importance' for the purpose of conserving biodiversity and are regarded as conservation priorities under the UK Biodiversity Framework 2024 (Ref. 6), which supersedes the UK Biodiversity Action Plan (UKBAP) (Ref. 7). The UKBAP was launched in 1994 and established a framework

- and criteria for identifying species (and habitat types) of conservation concern.
- 2.2.2 There are 49 bird species listed as being Species of Principal Importance (SPI) for conservation in England under Section 41 of the NERC Act (Ref. 5). These species are of material consideration during the planning process and are used to guide decision-makers such as public bodies (including local and regional authorities) in implementing their duty under Section 40 of the NERC Act.

2.3 Local Priority Species

2.3.1 The Scheme is located within the county of South Yorkshire and district of the City of Doncaster. Formerly, the Doncaster Local Biodiversity Action Plan (DoBAP) (Ref. 8) provided context to inform identification of threatened or uncommon species of local relevance, alongside priorities for conservation and enhancement targeted at a local level in Doncaster. However, under the Environment Act 2021 (Ref. 9), local biodiversity action plans are being replaced by Local Nature Recovery Strategies (LNRSs), which are a system of spatial strategies for nature which will support delivery of biodiversity net gain (BNG) and provide more focussed action for nature recovery. Whilst this is still being developed within South Yorkshire, this report references those species included on the DoBAP species audit list (Ref. 8) where there is proposed local action by the Doncaster Biodiversity Action Partnership (DBAP). Details of these species, of which there are 24, are presented in Table 1.

Table 1: Birds Listed on the DoBAP Species Audit for Which Local Action is Proposed by DBAP

English (vernacular) name	Scientific name
Barn Owl	Tyto alba
Bittern	Botaurus stellaris
Bullfinch	Pyrrhula pyrrhula
Corn Bunting	Emberiza calandra
Curlew	Numenius arquata
Green Woodpecker	Picus viridus
Grey Partridge	Perdix perdix
Lesser-spotted Woodpecker	Dryobates minor
Linnet	Linaria cannabina
Little Ringed Plover	Charadrius dubius
Nightingale	Luscinia megarhynchos
Nightjar	Caprimulgus europaeus
Nuthatch	Sitta europea
Reed Bunting	Emberiza schoeniclus
Skylark	Alauda arvensis

English (vernacular) name	Scientific name
Snipe	Gallinago gallinago
Song Thrush	Turdus philomelos
Spotted Flycatcher	Muscicapa striata
Tree Sparrow	Passer montanus
Turtle Dove	Streptopelia turtur
Twite	Linaria flavirostris
Woodlark	Lullula arborea
Willow Tit	Poecile montanus
Yellow Wagtail	Motacilla flava

2.4 Birds of Conservation Concern

- 2.4.1 The Birds of Conservation Concern (BoCC) is an assessment of the conservation status of all regularly occurring British birds. The lists (Red, Amber and Green) that indicate the level of conservation importance for each species are derived from quantitative assessments from standardised criteria and are drawn together by the UK's leading bird conservation organisations, including the Royal Society for the Protection of Birds (RSPB) and British Trust for Ornithology (BTO).
- 2.4.2 The most recent assessment, BoCC 5 (Ref. 10), was published in December 2021 and is based on the most up-to-date evidence available and includes conservation status at global and European levels and, within the UK, historical decline, trends in population and range, rarity, localised distribution and international importance.
- 2.4.3 The criteria for birds being included in the BoCC lists, relevant to the non-breeding season, are as follows:

Red List

- a. Species that are globally threatened (Critically Endangered, Endangered and Vulnerable, but not Near Threatened) under International Union for Conservation of Nature and Natural Resources (IUCN) Red List guidelines (Ref. 11);
- Species that have suffered a severe (>50%) non-breeding population decline within the UK in either the last 25 years or the longer-term (since 1969); or
- c. Species whose UK range in the non-breeding season has declined by more than 50% between respective non-breeding atlases.

Amber List

 a. Species that are threatened in Europe (Critically Endangered, Endangered and Vulnerable, but not Near Threatened as per IUCN Red List Guidelines (Ref. 11));

- Species that were previously red-listed for historical population decline, followed by an increase of at least 100% over 25 years or the longerterm period;
- c. Species that have suffered a moderate (>25% but <50%) non-breeding population decline within the UK in either the last 25 years or the longer-term (since 1969);
- Species whose UK range in the non-breeding season has declined by more than 25% but less than 50% between respective non-breeding atlases;
- e. Non-breeding rarities (UK population <900 non-breeding individuals);
- f. Non-breeding localisation whereby more than 50% of the UK population was found at ten or fewer sites in the non-breeding season; or
- g. Non-breeding international importance whereby the UK holds at least 20% of the European population in the non-breeding season of a particular species.

Green List

- a. Species that are not showing moderate or severe declines and do not qualify under any of the above criteria.
- 2.4.4 Although the BoCC lists confer no legal status in themselves, they are useful in evaluating the conservation significance of bird assemblages, and for assessing the potential significance of impacts and informing appropriate levels of mitigation with respect to bird populations that may be affected by a plan or project.

3. Methods

3.1 Characterising the Baseline

- 3.1.1 Within this report, the following terminology is used when referring to the geographic areas within which assessments were made:
 - a. Study Area the area within the Order limits and a 2 km radius which was subject to collection of background information e.g. desk study records for birds to supplement the findings of the survey work;
 - b. Zone of Influence (ZoI) the area over which non-breeding birds may be affected by the Scheme which, using the criteria below and proportionate to the Scheme's impacts, is up to 500 m from the Order limits (dependent on the sensitivity of the species). Through review of likely impacts of the Scheme and results of the desk study, the scope of field surveys was then defined; and
 - c. Survey Area this is the area within which survey work was undertaken. The Survey Area to record the non-breeding bird assemblage included all habitats within the Order limits and a minimum 50 m survey buffer around the Order limits. For species of greater conservation value and/or higher sensitivity, e.g. those listed on Annex 1 of the EU Birds Directive (Ref. 1) and sensitive to potential noise or visual disturbance, where any such species were recorded, the Survey Area was extended up to 500 m from the Order limits.

3.1.2 The ZoI is based on:

- a. The nature of the Scheme, proposed activities and the potential for effects at all phases of development (construction, operation and maintenance, and decommissioning);
- b. The nature of the land use, their connectivity within and outside of the Order limits and how they may be used by non-breeding birds;
- c. The presence and assemblages of non-breeding bird species in the wider area, based on the location of the Order limits and desk study data: and
- d. The habits, behaviours and preferences of different bird species during the non-breeding season and whether these could be affected both spatially and temporally.
- 3.1.3 Whilst standardised survey buffers for assessing the impacts of development on bird populations do not exist, the geographic areas described above provide information on non-breeding birds both within the Order limits and the area immediately surrounding the Order limits, including areas contiguous with the Order limits, where birds may potentially be adversely affected. Therefore, these are sufficient to determine the likely impacts of the Scheme on non-breeding bird species occurring or likely to occur within the vicinity of the Order limits.

3.2 Desk Study

3.2.1 A desk study was undertaken as part of the Preliminary Ecological Appraisal in Spring 2023 (Ref. 12). Records of protected and notable bird species within a 2 km radius of the Order limits were obtained through Doncaster

Local Records Centre (DLRC). Only records up to ten years old from the request date (February and November 2023) were considered within the assessment, as any records older than ten years are unlikely to be still representative of bird species in the local area. In addition, a search of publicly available online sources, such as eBird and BirdTrack, was undertaken to provide any supplementary or contextual data.

3.3 Field Survey

Diurnal Surveys

- 3.3.1 A series of diurnal walkover surveys were undertaken between January 2023 and August 2024 (see Section 3.3.6) based on a transect methodology as detailed in Bibby, et al. (2000) (Ref. 13) and Gilbert, et al. (1998) (Ref. 14). The method is similar to that used in the breeding bird surveys (as presented in ES Volume III Appendix 8-7: Breeding Birds Report [EN010152/APP/6.3]) as birds encountered visually or by sound, either within the Survey Area or flying over the Survey Area, were recorded. The survey methodology allowed all species to be recorded, including waders, wildfowl and Priority Species.
- 3.3.2 Survey routes followed the majority of hedgerows, fence lines and field margins (including paths, tracks and roads). Deviations into areas of set-aside, stubble fields, scrub, woodland and other uncultivated habitats were made, where practicable. The routes did not include walking through ploughed or cultivated fields, due to the possibility of trampling and damaging crops. Fields containing livestock were avoided for safety reasons but could be surveyed from the field boundary for any large non-breeding bird assemblages.
- 3.3.3 Regular stopping points were included at various locations around the Survey Area to record any species that may be passing through the Survey Area and to survey birds that were audible or visible within any inaccessible areas. Survey routes were mapped, and the direction walked alternated on each visit, to ensure that all areas were covered at various times of day (ranging from just before sunrise to just after sunset) across the duration of the survey but also including coverage of the period up to two hours after dusk.
- 3.3.4 On each survey visit, the route was walked at a slow pace with start and finish times noted. Prior to approaching a field, the observer undertook an initial scan to determine the presence of any species already present.
- 3.3.5 All birds seen and heard were recorded directly onto paper maps and then later digitised onto a 1:10,000 scale Ordnance Survey (OS) base map of the Survey Area or recorded onto an ArcGIS base map using 'Field Maps' software on hand-held Samsung Tablet devices, with a 1:10,000 scale OS base map of the Survey Area. Registrations of birds were recorded using standard BTO two letter species codes.
- 3.3.6 Monthly surveys for non-breeding birds within the Solar PV Site were undertaken between January 2023 and February 2023, September 2023 and March 2024 and August 2024. Owing to the size of the Solar PV Site, each survey was undertaken over a period of between two-three days. Survey Metadata is presented in Annex B.

Nocturnal Survey

- 3.3.7 Nocturnal surveys were carried out to complement the diurnal non-breeding bird surveys and facilitate assessment of potential variation between diurnal and nocturnal site usage by some species (e.g. Golden Plover *Pluvialis apricaria*).
- 3.3.8 Walkovers of the Survey Area were completed once a month between November 2023 and March 2024 (see Annex B). The survey method involved a combination of walkovers and driven transects, with viewpoint watches at intervals to scan suitable habitats (fields and water bodies/watercourses) for any congregations of birds. A thermal imaging monocular (Pulsar Helion XQ50F) was used to help detect and identify birds.
- 3.3.9 All birds seen and heard were recorded directly onto paper maps and then later digitised onto a 1:10,000 scale OS base map of the Survey Area or recorded onto an ArcGIS base map using 'Field Maps' software on handheld Samsung Tablet devices, with a 1:10,000 scale OS base map of the Survey Area. Registrations of birds were recorded using standard BTO two letter species codes.

3.4 Assessment of Biodiversity Importance

- 3.4.1 The biodiversity importance of the Survey Area for non-breeding birds was assessed by evaluating any species afforded special statutory protection or those included on one, or more, of the lists of species of conservation interest, as detailed in Section 2 of this report. These include:
 - a. Species listed on Annex 1 of the EU Birds Directive (Ref. 1);
 - b. Priority bird species in the UK (Ref. 5) and Doncaster (see Table 1); or
 - c. Species included in the BoCC Red and Amber Lists (Ref. 10).

Species Abundance

- 3.4.2 In addition to evaluating a site based on its populations of non-breeding birds in relation to legal status, rarity and biodiversity importance, consideration has to be given to the value of the Survey Area for the populations (abundance) of individual species that it supports. This can be done by comparing the population present within the Survey Area with the national and county non-breeding population for certain species. National estimates for non-breeding birds are published in a paper: 'Population estimates of birds in Great Britain and the United Kingdom' (Ref. 15). The BTO Bird Atlas 2007-2011 (Ref. 16) was also reviewed for species information on a national level.
- 3.4.3 County-level estimates on the non-breeding bird populations of the majority of species in Doncaster and South Yorkshire were obtained from online resources and county avifauna publications, where this information was available. However, professional judgement was applied when determining the geographic importance of species where population estimates were not available.

Species Diversity

3.4.4 The number of species recorded in an area is a simple measure of diversity that can indicate its importance at each season of the year.

- 3.4.5 Local Wildlife Sites (LWS) (or County Wildlife Sites (CWS)) are among the most important places for wildlife in Doncaster, together with legally protected land such as Sites of Special Scientific Interest (SSSIs).
- 3.4.6 LWSs are selected for their habitats and can also be designated for particular species and taxonomic groups, including birds. The Doncaster Local Plan (Ref. 17) includes selection criteria for birds and state that an LWS in Doncaster can be selected based on the following specific criteria for birds:
 - a. B1 any cliff, crag or sand bank that supports a breeding bird species present on the Doncaster Species Audit (Ref. 17);
 - b. B2 wet meadows that support at least three species, or six pairs of breeding wader; and
 - MS2 any site that supports a good population of a species that has undergone a significant decline, documented at a national, regional or local level.

Importance of the Non-Breeding Bird Population

- 3.4.7 An essential prerequisite step to allow ecological impact assessment of the Scheme was an evaluation of the relative biodiversity importance of the Survey Area for non-breeding birds. This is necessary to set the terms of reference for the subsequent ecological impact assessment (as presented in ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]).
- 3.4.8 The method of evaluation that was utilised has been developed with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (Ref. 18). This gives guidance on scoping and carrying out environmental assessments and places appraisal in the context of relevant policies and at a geographical scale at which feature matters (i.e. international, national, regional, county, district, local or site). Data received through desk study and field-based surveys were used and evaluated on species rarity, abundance and diversity within the Survey Area to assess the biodiversity importance of the non-breeding bird populations recorded during the field surveys. Professional judgement was also applied where necessary. Relevant published national and local guidance and criteria can be used, where available, to inform the assessment of biodiversity importance and to assist consistency in evaluation.

3.5 Assumptions and limitations

3.5.1 There were a number of modifications to the Order limits, which in turn resulted in minor modifications to the Survey Area used during the course of the surveys for non-breeding birds. The buffer around the Order limits, forming the Survey Area was such that it allowed for minor modifications to the Scheme without reducing efficacy of the survey. Whilst it is acknowledged that individuals of some species may have been missed (particularly smaller passerines associated with denser vegetation), due to small areas of the Order limits not being surveyed (<1%), any modifications to the Scheme are not considered to have significantly altered the conclusions drawn within this report, especially in relation to congregations of waterbirds. Sufficient representatives of all habitat types have been covered within the entirety of the optimal survey period for non-breeding

- birds, allowing for a comprehensive assessment of bird species and assemblages present.
- 3.5.2 Therefore, sufficient information has been gathered from both project specific surveys over an appropriate period and detailed supplementary and contextual desktop data to establish a robust baseline of the non-breeding bird population present within the Order limits.

4. Results

4.1 Desk study

- 4.1.1 The data search, undertaken through DLRC, returned over 1,000 records of 128 bird species, including specially protected or notable bird species (see Section 2) from within the Study Area and from the preceding ten years from the request date. A list of the 128 species recorded during the desk study is included in Annex A.
- 4.1.2 Of these 128 bird species (some species are included on more than one list):
 - a. 11 specially protected species that are listed in Annex 1 of the Birds Directive (Ref. 1);
 - b. 23 species are listed as a Priority Species in the UK (Ref. 5);
 - t. 18 species have action plans proposed on the species audit for Doncaster (see Table 1);
 - d. 30 species are included on the BoCC Red List (Ref. 10); and
 - e. 43 species are included on the BoCC Amber List (Ref. 10).
- 4.1.3 In addition, a review of publicly available online sources identified bird records from the following locations within the Study Area, as recorded by members of the public:
 - a. Topham Wetlands/Topham Ferry Flashes (adjacent to the northeast of the Order limits on the opposite side of the River Went¹). This area regularly supports concentrations of non-breeding waterbirds, with peaks of counts of selected species provided by the Burnett Heritage Trust including 65 Wigeon, 230 Mallard, 200 Teal, 52 Gadwall, 30 Tufted Duck, 95 Snipe and 2 Pintail.
 - b. Norton Common (approximately 1.8 km to the west of the Order limits²). This area supports a range of typical farmland birds, including species of conservation value, i.e. Priority Species and BoCC Red list species.

4.2 Field survey

- 4.2.1 Ninety-eight species were recorded during surveys of non-breeding birds. A summary of the peak count data and conservation status of the 98 non-breeding bird species recorded during the surveys is provided in Table 2, with those species recorded during nocturnal surveys between November 2023 and February 2024 included in parentheses.
- 4.2.2 For species which are widespread throughout the Survey Area (e.g. Bue Tit Cyanistes caeruleus), are common within the county and the UK and are not of conservation concern (i.e. not listed on one or more of the lists of conservation concern as detailed in Section 2 of this appendix), the peak count of individuals of these species have not been calculated and these are referred to in Table 2 as being present (P).
- 4.2.3 From the non-breeding assemblage of 98 species, recorded during field surveys (some species are included on more than one list):

¹ 53°38'56.7"N 1°03'47.2"W – location co-ordinates provided by eBird

² 53°37'29.4"N 1°08'04.3"W – location co-ordinates provided by eBird

- Eight specially protected species that are listed in Annex 1 of the Birds Directive (Ref. 1);
- b. 17 species are listed as a Priority Species in the UK (Ref. 5);
- c. 13 species have action plans proposed on the species audit for Doncaster (see Table 1);
- d. 18 species are included on the BoCC Red List (Ref. 10); and
- e. 34 species are included on the BoCC Amber List (Ref. 10).

Table 2: Peak Count Data and Conservation Designation of Non-Breeding Bird Species Recorded Utilising the Survey Area

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023			Dec 2023	Jan 2024	Feb 2024	Mar 2024	_	Supporting Notes
Mute Swan Cygnus olor	-	-	2	5	4	4	4	2	1	8	14	-
Whooper Swan Cygnus cygnus	Annex 1, BoCC Amber	-	-	-	19	-	-	-	-	-	-	19 birds recorded foraging on a single occasion within the Order limits in October 2023.
Canada Goose Branta canadensis	-	-	-	4	-	(9)	200/(1)	(1)	36/(3)	-	-	-
Greylag Goose Anser anser	BoCC Amber	-	-	6	-	37	70	(4)	13/(1)	7	1	Small groups were recorded in fields along the River Went corridor both north and south of the river in most months. In addition smaller numbers (10) were recorded flying high over the Order limits in November 2023.
Pink-footed Goose Anser brachyrhynchus	BoCC Amber	-	-	-	67	360	1	-	-	-	-	A flock of 360 birds were recorded on a single occasion in November 2023 in a field north of the River Went that flew east (and out of the Survey Area) a short while after being recorded. A number of flocks, including one of up to 600 birds were recorded

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
												during migration passing high south over the Survey Area, in September October and November 2023. During this period two small flocks were noted within the Order limits on single dates in October 2023: a flock of 28 individuals in a pasture field in the northeast of the Order limits and a flock of 39 individuals in an arable field in the south of the Order limits. A single bird was noted in an arable field to the north of the River Went in December 2023, but there were no further observations of the species within the Survey Area.
Shoveler Spatula clypeata	BoCC Amber	-	-	-	-	34	2	-	-	-	-	The species was predominantly recorded along the River Went corridor, associating with the seasonally flooded grassland areas north and south of the river.
Gadwall Mareca strepera	BoCC Amber	-	-	-	-	-	-	-	-	-	4	Recorded on the River Went.
Mallard Anas platyrhynchos	BoCC Amber	57	15	3	27	108/(4)	69/(8)	72/(18)	18/(7)	22	47	Predominantly associated with the River Went.

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Teal Anas crecca	BoCC Amber	2	3	80	1	175	310/(45)	24/(2)	39/(4)	361	1	Predominantly associated with the River Went.
Wigeon <i>Mareca</i> penelope	BoCC Amber	-	-	-	-	100/(5)	18/(1)	-	-	4	-	Predominantly associated with the River Went.
Little Grebe Tachybaptus ruficollis	-	-	-	2	1	-	-	-	2	-	2	-
Red-legged Partridge <i>Alectoris</i> rufa	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Grey Partridge Perdix perdix	Priority Species, BoCC Red, DoBAP	-	3	15	38	-	-	-	6	2	8	Coveys (groups) recorded across the Survey Area.
Pheasant Phasianus colchicus	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Cormorant Phalacracorax carbo	-	-	-	-	2	-	-	1	2	-	4	-
Little Egret Egretta garzetta	Annex 1	1	-	5	4	3	-	2	3	2	-	Predominantly recorded along the River Went and minor watercourses.

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Grey Heron <i>Ardea</i> cinerea	-	1	1	14	8	3	-	-	2	2	6	-
Sparrowhawk Accipiter nisus	BoCC Amber	-	-	2	3	-	1	1	1	2	3	Single birds recorded across the Survey Area.
Red Kite Milvus milvus	Annex 1	-	-	-	3	-	-	-	-	-	3	Three birds recorded on a single occasion flying over the Order limits in October 2023 and August 2024.
Marsh Harrier Circus aeruginosus	Annex 1, BoCC Amber	2	-	3	4	2	2	-	1	-	-	Regularly recorded hunting over arable fields, with a peak of four birds in October 2023.
Buzzard Buteo buteo	-	2	1	22	20	3	2	1	1	5	15	-
Moorhen Gallinula chloropus	BoCC Amber	-	-	7	6	1	2	2	4/(1)	1	2	Associated with the River Went and other watercourses.
Coot Fulica atra	-	-	-	1	3	-	-	-	1	2	-	-
Water Rail Rallus aquaticus	-	-	-	-	1	-	-	-	-	-	-	-
Golden Plover Pluvialis apricaria	Annex 1	-	-	-	-	(1)	-	35	-	-	-	Recorded on a single occasion in an arable field south of the River Went.

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023	•			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Lapwing Vanellus vanellus	Priority Species, BoCC Red	19	-	3	3	(1)	11/(6)	38	-	35	-	Small numbers recorded across the Survey Area, predominantly to the west of the Order limits.
Curlew Numenius arquata	Priority Species, BoCC Red, DoBAP	-	-	-	-	-	-	-	-	2	-	Predominantly associated with the River Went.
Woodcock Scolopax rusticola	BoCC Red	-	-	-	-	-	-	-	1	-	-	Single bird recorded.
Snipe <i>Gallinago</i> gallinago	BoCC Amber, DoBAP	-	6	15	10	3/(6)	-	11	-	1	3	Predominantly recorded in the north of the Solar PV Site, near to the River Went.
Green Sandpiper Tringa ochropus	BoCC Amber	-	-	-	-	-	-	-	-	-	2	Passage migrants, recorded close to the River Went.
Common Sandpiper Actitis hypoleucos	BoCC Amber	-	-	1	-	-	-	-	-	-	-	Single bird recorded.
Black-headed Gull Chroicocephalus ridibundus	BoCC Amber	1	-	328	218	30	258	9	9	26	231	Associated with fields and wetland areas, particularly near the River Went.
Common Gull Larus canus	BoCC Amber	-	-	-	3	9	127	32	2	17	1	Associated with fields and wetland areas, particularly near the River Went.

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023	-			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Great Black- backed Gull Larus marinus	BoCC Amber	-	-	-	6	2	1	-	-	-	-	Associated with fields and wetland areas, particularly near the River Went.
Herring Gull Larus argentatus	Priority Species, BoCC Red	-	-	1	15	77	104	-	1	-	41	Associated with fields and wetland areas, particularly near the River Went.
Lesser Black- backed Gull <i>Larus</i> fuscus	BoCC Amber	-	-	446	98	13	-	-	-	-	351	Passage birds, mostly recorded flying over.
Kingfisher Alcedo atthis	Annex 1	-	-	1	2	-	-	-	-	-	1	Associated with the River Went and minor (wet) watercourses.
Stock Dove Columba oenas	BoCC Amber	-	1	276	361	30	6	-	3	-	260	Flocks of birds foraging in arable fields, swelled by passage birds in September and October 2023 and August 2024.
Wood Pigeon Columba palumbus	BoCC Amber	94	132	712	618	14	13	5	8	-	501	Flocks of birds foraging in arable fields, swelled by passage birds in September and October 2023.
Collared Dove Streptopelia decaocto	-	-	1	1	-	-	-	-	1	-	1	-

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023			Nov 2023	Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Barn Owl <i>Tyto</i> alba	DoBAP	-	2	4	-	-	-	(1)	-	-	-	Recorded roosting in mature trees and a single bird during the nocturnal survey in January 2024.
Tawny Owl Strix aluco	BoCC Amber	-	-	-	-	(1)	-	-	-	-	-	Recorded during the nocturnal survey in November 2023, associated with mature trees.
Little Owl Athene noctua	-	-	-	2	-	-	-	(1)	-	-	1	-
Great Spotted Woodpecker Dendrocopos major	-	-	1	-	4	-	-	-	1	-	1	-
Green Woodpecker Picus viridus	DoBAP	-	-	1	1	-	-	-	-	-	-	Associated with mature trees.
Merlin Falco columbarius	Annex 1	-	-	-	-	1	-	-	-	1	-	Single birds foraging within the Survey Area.
Kestrel Falco tinnunculus	BoCC Amber	2	-	11	7	1	1	3	-	-	4	A low number of birds recorded across the Survey Area, swelled by passage birds in September and October 2023.
Peregrine Falco peregrinus	Annex 1	-	-	4	3	-	1	-	-	-	-	Adult female and an unaged female recorded flying over on two transects on the same date in

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023		Nov 2023	Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
												September 2023 and likely the same birds recorded in October 2023.
Jay Garrulus glandarius	-	2	1	9	7	-	-	-	1	-	1	-
Magpie <i>Pica pica</i>	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Jackdaw Coloeus monedula	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Rook Corvus frugilegus	BoCC Amber	-	-	Р	Р	Р	Р	-	-	Р	Р	Present throughout, with small flocks foraging in arable farmland and utilising trees for resting.
Carrion Crow Corvus corone	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Coal Tit Periparus ater	-	-	-	-	6	-	-	-	-	-	-	-
Blue Tit Cyanistes caeruleus	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Great Tit Parus major	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Skylark Alauda arvensis	Priority Species, BoCC Red, DoBAP	5	33	243	175	17	46	8	22	39	4	Associated with arable farmland.

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023			Nov 2023	Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Sand Martin Riparia riparia	-	-	-	-	-	-	-	-	-	-	5	-
Swallow Hirundo rustica	-	-	-	217	2	-	-	-	-	-	144	-
House Martin Delichon urbicum	BoCC Red	-	-	39	3	-	-	-	-	-	10	Passage birds, recorded flying over.
Long-tailed Tit Aegithalos caudatus	-	Р	-	Р	Р	Р	Р		Р	Р	Р	-
Chiffchaff Phylloscopus collybita	-	-	-	29	10	-	-	-	-	2	47	-
Willow Warbler Phylloscopus trochilus	BoCC Amber	-	-	-	-	-	-	-	-	-	4	Passage birds.
Blackcap Sylvia atricapilla	-	-	-	1	-	-	-	-	-	-	5	-
Lesser Whitethroat Sylvia curruca	-	-	-	-	-	-	-	-	-	-	4	-
Whitethroat Sylvia communis	BoCC Amber	-	-	5	-	-	-	-	-	-	2	Single passage birds associated with scrub and hedgerows.

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023		Nov 2023	Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Goldcrest Regulus regulus	_	-	-	8	24	2	2	-	-	2	3	-
Wren <i>Troglodytes</i> troglodytes	BoCC Amber	4	5	18	64	5	10	1	7	7	21	Associated with scrub and hedgerows.
Treecreeper Certhia familiaris	-	-	-	1	2	-	-	-	-	1	2	Associated with trees, scrub and hedgerows.
Starling Sturnus vulgaris	Priority Species, BoCC Red	3	28	47	16	307	591	31	1145	828	-	Associated with most habitat types and numbers swelled by migratory overwintering birds in February 2024.
Blackbird <i>Turdus</i> merula	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Fieldfare Turdus pilaris	BoCC Red	25	1	-	9	409	34	165	540	69	-	Associated with scrub and hedgerows bearing fruit.
Redwing <i>Turdus</i> iliacus	BoCC Amber	9	33	-	259	47	18	87	185	4	-	Associated with scrub and hedgerows bearing fruit.
Song Thrush Turdus philomelos	Priority Species, BoCC Amber, DoBAP	3	4	3	131	4	7	1	2	4	3	Associated with scrub and hedgerows, swelled by passage birds in October 2023.
Mistle Thrush Turdus viscivorus	BoCC Red	5	-	19	3	1	-	-	-	-	-	Unusually large group of 19 mobile birds in September 2023

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023	•			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
												are likely to have been on passage.
Spotted Flycatcher <i>Muscicapa striata</i>	Priority Species, BoCC Red, DoBAP	-	-	-	-	-	-	-	-	-	2	Passage birds.
Robin <i>Erithacus</i> rubecula	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Wheatear Oenanthe oenanthe	BoCC Amber	-	-	2	-	-	-	-	-	-	-	Single birds recorded on passage.
Stonechat Saxicola rubicola	-	-	-	1	9	-	-	-	-	1	-	-
House Sparrow Passer domesticus	Priority Species, BoCC Red	-	1	2	-	-	-	-	-	-	6	Associated with scrub and hedgerows.
Tree Sparrow Passer montanus	Priority Species, BoCC Red, DoBAP	-	-	2	19	-	-	-	-	-	-	Associated with scrub and hedgerows, with passage birds recorded in October 2023.
Dunnock <i>Prunella</i> modularis	Priority Species, BoCC Amber	1	6	16	23	2	2	-	1	6	7	Associated with scrub and hedgerows.

Species (English name) and scientific name	Conservation designation (where applicable)		Feb 2023				Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
Yellow Wagtail <i>Motacilla flava</i>	Priority Species, BoCC Red, DoBAP	-	-	-	-	-	-	-	-	-	3	Passage birds, recorded in arable fields.
Grey Wagtail Motacilla cinerea	BoCC Amber	-	-	2	5	1	-	-	-	-	-	Associated with wetland areas, such as the River Went and other watercourses.
Pied Wagtail Motacilla alba	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Meadow Pipit Anthus pratensis	BoCC Amber	5	32	412	93	26	24	2	9	18	5	Small groups recorded within grassland and arable fields, numbers swelled by passage birds overhead in September and October.
Crossbill <i>Loxia</i> curvirostra	-	-	-	-	1	-	-	-	-	-	-	-
Chaffinch Fringilla coelebs	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Brambling Fringilla montifringilla	-	-	-	-	3	-	-	-	-	-	-	-
Bullfinch Pyrrhula pyrrhula	Priority Species,		4	3	-	-	3	-	-	-	1	Associated with scrub and hedgerows.

Species (English name) and scientific name	Conservation designation (where applicable)			Sep 2023			Dec 2023	Jan 2024	Feb 2024		Aug 2024	Supporting Notes
	BoCC Amber, DoBAP											
Greenfinch Chloris chloris	BoCC Red	1	-	5	10	1	5	-	-	-	1	Small groups recorded close to scrub, hedgerows and trees.
Siskin <i>Spinus</i> spinus	-	-	12	3	78	-	3	-	-	-	-	-
Linnet <i>Linaria</i> cannabina	Priority Species, BoCC Red, DoBAP	1	-	209	24	81	35	81	302	140	153	Small flocks of Linnet recorded within arable farmland across the Order limits.
Goldfinch Carduelis carduelis	-	Р	Р	Р	Р	Р	Р	Р	Р	Р	Р	-
Redpoll Acanthis cabaret	Priority Species, BoCC Red	-	-	19	3	-	-	-	-	-	-	Birds recorded predominantly on passage in small groups.
Corn Bunting Emberiza calandra	Priority Species, BoCC Red, DoBAP	2	-	-	-	-	-	-	-	-	-	Two single birds recorded in arable farmland in the north of the Order limits.
Yellowhammer Emberiza citrinella	Priority Species, BoCC Red	1	-	14	43	10	2	2	1	-	1	Recorded in scrub and hedgerows within arable farmland.

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Species (English name) and scientific name				•		Nov 2023	Dec 2023	Jan 2024	Feb 2024		_	Supporting Notes
Reed Bunting Emberiza schoeniclus	Priority Species, BoCC Amber, DoBAP	3	3	30	33	10	8	5	18	1	10	Recorded close to watercourses and within arable farmland.
Total number of s	pecies	38	37	71	72	51/(7)	50/(5)	37/(8)	48/(5)	46	64	-

5. Evaluation

5.1.1 The desk study and field surveys were used to determine the importance of the Order limits for non-breeding birds and this is presented in the following sections.

5.2 Specially Protected Species

- 5.2.1 The data search, undertaken through DLRC, returned records of 11 bird species listed in Annex 1 of the Birds Directive (Ref. 1). Of these, Barnacle Goose *Branta leucopsis*, Bittern *Botaurus stellaris*, Common Tern *Sterna hirundo* and Crane *Grus grus* are absent from the Order limits during the non-breeding season, as confirmed by field surveys.
- 5.2.2 Seven species that were identified through the desk study as occurring within the Study Area (Kingfisher *Alcedo atthis*, Little Egret *Egretta garzetta*, Marsh Harrier *Circus aeruginosus*, Merlin *Falco columbarius*, Peregrine *Falco peregrinus*, Red Kite *Milvus milvus* and Whooper Swan *Cygnus cygnus*) and listed in Annex 1 of the EU Birds Directive (Ref. 1), were recorded within the Survey Area during the non-breeding bird period. Further details of these are presented below.
 - Kingfisher recorded in September and October 2023, utilising the River Went and minor watercourses.
 - Little Egret recorded in most months and peaking at five birds in September 2023, predominantly recorded along the River Went and minor watercourses.
 - c. Marsh Harrier regularly recorded hunting over arable fields, peaking at four birds in October 2023.
 - d. Merlin single birds, hunting over arable farmland within the Order limits in November 2023 and March 2024.
 - e. Peregrine recorded in September, October and December 2023 with a peak of four birds in September 2023 and what were considered three of the same birds in October 2023.
 - f. Red Kite three birds recorded on a single occasion flying over the Order limits in October 2023.
 - g. Whooper Swan 19 birds recorded on a single occasion within the Order limits in October 2023.
- 5.2.3 Additionally, 35 Golden Plover were recorded on a single occasion within an arable field in January 2024.

5.3 Species of conservation importance

Priority Species

5.3.1 The desk study identified 23 bird species (see Annex A) that are listed as SPI prepared under Section 41 of the NERC Act 2006 (Ref. 5). Of these, Cuckoo Cuculus canorus, Grasshopper Warbler Locustella naevia, Tree Pipit Anthus trivialis and Turtle Dove Streptopelia turtur are all summer visitors to the UK and the habitat within the Order limits is not suitable to support these

- species. Therefore they do not occur within the Order limits during the non-breeding season (further evidenced from their absence during field surveys). A further four species (Bittern, Lesser Spotted Woodpecker *Dryobates minor*, Marsh Tit *Poecile palustris* and Willow Tit *Poecile montanus*) are absent from the Order limits, as evidenced from their absence during field surveys.
- 5.3.2 Seventeen priority species, identified during the desk study as occurring within the Study Area (Bullfinch, Curlew, Grey Partridge, Herring Gull, House Sparrow, Lapwing, Redpoll, Linnet, Reed Bunting, Skylark, Song Thrush, Spotted Flycatcher, Starling, Tree Sparrow, Yellow Wagtail and Yellowhammer) were recorded within the Survey Area during field surveys. Additionally, Corn Bunting was recorded within the Survey Area (during field surveys), but not within the Study Area during the desk study.

Birds of Conservation Concern

5.3.3 Inclusion on the Birds of Conservation Concern Red or Amber list (Ref. 10) does not confer any statutory protection. However, the species reported below are all of conservation importance and considered to be under varying levels of threat in a UK context.

Red List Species

- 5.3.4 The desk study identified 31 bird species (see Annex A) that are listed on the Red List of BoCC 5 (Ref. 10). Of these, 14 species (Cuckoo, Curlew, Dunlin, Goldeneye, Grasshopper Warbler, Hawfinch, House Martin, Lesser Spotted Woodpecker, Marsh Tit, Pochard, Swift, Tree Pipit, Willow Tit and Turtle Dove) were not recorded within the Order limits during field surveys, either because the species is a summer visitor to the UK or because the habitat within the Order limits is not suitable to support these species.
- 5.3.5 Seventeen species identified during the desk study as occurring within the Study Area that are included on the BoCC Red List (Ref. 10) (Grey Partridge, Lapwing, Woodcock, Herring Gull, Merlin, Skylark, Spotted Flycatcher, Starling, Fieldfare, Mistle Thrush, House Sparrow, Tree Sparrow, Redpoll, Greenfinch, Linnet, Yellow Wagtail and Yellowhammer) were recorded within the Survey Area during field surveys. Additionally, Corn Bunting was recorded within the Survey Area (during field surveys), but not within the Study Area during the desk study.

Amber List Species

- 5.3.6 The desk study identified 43 bird species (see Annex A) that are listed on the Amber list of BoCC 5 (Ref. 10). Of these, ten species that are included on the BoCC Amber List (Ref. 10) (Barnacle Goose, Bittern, Common Tern, Crane, Greenshank, Oystercatcher, Pintail, Redshank, Redstart and Sedge Warbler) were not recorded within the Order limits during field surveys, either because the species is a summer visitor to the UK or because the habitat within the Order limits is not suitable to support these species.
- 5.3.7 Thirty-four species identified during the desk study as occurring within the Study Area that are included on the BoCC Red List (Ref. 10) (Whooper Swan, Greylag Goose, Pink-footed Goose, Shoveler, Gadwall, Mallard, Teal, Wigeon, Sparrowhawk, Marsh Harrier, Moorhen, Snipe, Common Sandpiper, Black-headed Gull, Common Gull, Green Sandpiper, Great Black-backed Gull, Lesser Black-backed Gull, Tawn Owl, Stock Dove, Wood Pigeon,

Kestrel, Rook, Grey Wagtail, Whitethroat, Wren, Redwing, Song Thrush, Wheatear, Dunnock, Meadow Pipit, Bullfinch, Reed Bunting and Willow Warbler) were recorded within the Survey Area during field surveys.

Doncaster BAP

- 5.3.8 The desk study identified 18 bird species (see Annex A) that have species action plans proposed on the species audit in the DoBAP (Table 1) and for which action plans have been proposed. Of these, three species (Bittern, Little Ringed Plover, and Turtle Dove) were not recorded within the Order limits during field surveys, either because the species is a summer visitor to the UK or because the habitat within the Order limits is not suitable to support these species. Additionally, Lesser Spotted Woodpecker and Nuthatch two predominantly woodland species, are absent from the Order limits as evidenced by field survey.
- 5.3.9 Thirteen species identified during the desk study as occurring within the Study Area that have species action plans proposed on the DoBAP (Table 1) (Barn Owl, Bullfinch, Curlew, Green Woodpecker, Grey Partridge, Linnet, Reed Bunting, Skylark, Snipe, Song Thrush, Spotted Flycatcher, Tree Sparrow and Yellow Wagtail) were recorded within the Survey Area during field surveys.

5.4 Species Abundance

- 5.4.1 In addition to evaluating a site based on its populations of non-breeding birds in relation to legal status, rarity and conservation value, consideration has to be given to the value of the Order limits for the population of individual species that it supports. This can be done by comparing the population present within the Order limits with the national and county non-breeding population for certain species.
- 5.4.2 No peak counts of any species form a significant proportion (i.e. 1% or more) of the national non-breeding population estimates as detailed in Woodward, et al. (2020) (Ref. 15).
- 5.4.3 Current county population estimates for some of the species afforded special statutory protection and/or, of conservation importance are not available. However, whilst the majority of species of conservation importance that were recorded within the Order limits are declining in the UK, most remain widespread.
- 5.4.4 Therefore, using professional judgement, the majority of individuals of species recorded were all relatively low and are unlikely to represent significant proportions (i.e. 1 % or more) of the county populations in South Yorkshire. The peak count of Skylark (243) and Grey Partridge (38) are likely to be of District importance in Doncaster. The remaining species populations occurring within the Order limits are considered to be of no more than Local importance.
- 5.4.5 All other species recorded during field surveys of the Solar PV Site are not present in numbers important at a county scale in South Yorkshire or district scale in Doncaster and are of Local importance only.

5.5 Species Diversity

- 5.5.1 Professional judgement was used to evaluate the number of species recorded within the Survey Area and in each discrete habitat type to assess species diversity.
- 5.5.2 Across the survey period a total of 98 species were recorded during the non-breeding bird surveys. The Order limits and wider Survey Area support a diverse range of habitats, and this reflects the broad suite of species recorded. To inform a focussed impact assessment the following non-breeding bird assemblages are considered:
 - a. A non-breeding waterbird assemblage of district importance, associated with the River Went (both within the Order limits on the southern side and outside the Order limits on the northern side) regular occurrence throughout the survey period of waterbirds (including, Shoveler, Mallard, Teal and Wigeon and gulls) on permeant waterbodies (north of the River Went) and during periods of flooding (both sides of the River Went), in numbers likely to be of importance within the Doncaster area.
 - b. A non-breeding farmland bird assemblage of district importance, associated with areas of arable farmland within the Order limits regular occurrence throughout the survey period of declining farmland species, including Grey Partridge, Skylark, Linnet and Yellowhammer, in numbers likely to be of importance within the Doncaster area. This classification is also consistent with the criteria for LWS selection within Doncaster MS2 Any site that supports a good population of a species that has undergone a significant decline, documented at a national, regional or local level.

5.6 Species Distribution

5.6.1 The location of Annex 1 species and BoCC Red and Amber-listed bird species (see Table 2) are presented in Figures 8-8-1 to Figure 8-8-3 in Annex C of this report. In general, concentrations of species were found within the most suitable habitats to support each individual species' needs (i.e. species reliant on woodland habitat were found within woodland habitat in the Order limits, etc.).

6. References

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Annex A Data Search Records from Within 2 km of the Order Limits

Common (English) name			Conservation designation
Barn Owl	Tyto alba	2014	WCA Sch. 1, DoBAP
Barnacle Goose	Branta leucopsis	2015	Annex 1, BoCC Amber
Bittern	Botaurus stellaris	2017	Annex 1, WCA Sch. 1, Priority Species, BoCC Amber, DoBAP
Blackbird	Turdus merula	2018	-
Blackcap	Sylvia atricapilla	2017	-
Black-headed Gull	Chroicocephalus ridibundus	2018	BoCC Amber
Blue Tit	Cyanistes caeruleus	2018	-
Brambling	Fringilla montifringilla	2017	WCA Sch. 1
Bullfinch	Pyrrhula pyrrhula	2018	Priority Species, BoCC Amber, DoBAP
Buzzard	Buteo buteo	2018	-
Canada Goose	Branta canadensis	2018	-
Carrion Crow	Corvus corone	2018	-
Cetti's Warbler	Cettia cetti	2021	WCA Sch. 1
Chaffinch	Fringilla coelebs	2018	-
Chiffchaff	Phylloscopus collybita	2018	-
Coal Tit	Periparus ater	2018	-
Collared Dove	Streptopelia decaocto	2018	-
Common Gull	Larus canus	2018	BoCC Amber
Common Sandpiper	Actitis hypoleucos	2017	BoCC Amber
Common Tern	Sterna hirundo	2017	Annex 1, BoCC Amber
Coot	Fulica atra	2017	-
Cormorant	Phalacrocorax carbo	2018	-
Crane	Grus grus	2015	Annex 1, BoCC Amber
Cuckoo	Cuculus canorus	2023	Priority Species, BoCC Red

Common (English) name	Scientific name	Year of most recent record	Conservation designation	
Curlew	Numenius arquata	2018	Priority Species, BoCC Red, DoBAP	
Dunlin	Calidris alpina	2014	BoCC Red	
Dunnock	Prunella modularis	2018	Priority Species, BoCC Amber	
Fieldfare	Turdus pilaris	2018	WCA Sch. 1, BoCC Red	
Firecrest	Regulus ignicapilla	2015	WCA Sch. 1	
Gadwall	Mareca strepera	2021	-	
Garden Warbler	Sylvia borin	2017	-	
Goldcrest	Regulus regulus	2017	-	
Goldeneye	Bucephala clangula	2015	BoCC Red	
Goosander	Mergus merganser	2016	-	
Grasshopper Warbler	Locustella naevia	2021	Priority Species, BoCC Red	
Great Black- backed Gull	Larus marinus	2018	BoCC Amber	
Great Crested Grebe	Podiceps cristatus	2017	-	
Great Spotted Woodpecker	Dendrocopos major	2018	-	
Great Tit	Parus major	2018	-	
Green Sandpiper	Tringa ochropus	2017	WCA Sch. 1, BoCC Amber	
Green Woodpecker	Picus viridis	2018	DoBAP	
Greenfinch	Chloris chloris	2018	BoCC Red	
Greenshank	Tringa nebularia	2017	WCA Sch. 1, BoCC Amber	
Grey Heron	Ardea cinerea	2018	-	
Grey Partridge	Perdix perdix	2018	Priority Species, BoCC Red, DoBAP	
Grey Wagtail	Motacilla cinerea	2018	BoCC Amber	
Greylag Goose	Anser anser	2017	BoCC Amber	

Common (English) name	Scientific name	Year of most recent record	Conservation designation
Hawfinch	Coccothraustes coccothraustes	2017	BoCC Red
Herring Gull	Larus argentatus	2018	Priority Species, BoCC Red
Hobby	Falco subbuteo	2017	WCA Sch. 1
House Martin	Delichon urbicum	2018	BoCC Red
House Sparrow	Passer domesticus	2018	Priority Species, BoCC Red
Jackdaw	Coloeus monedula	2018	-
Jay	Garrulus glandarius	2017	-
Kestrel	Falco tinnunculus	2018	BoCC Amber
Kingfisher	Alcedo atthis	2017	Annex 1, WCA Sch. 1
Lapwing	Vanellus vanellus	2018	Priority Species, BoCC Red
Lesser Black- backed Gull	Larus fuscus	2018	BoCC Amber
Lesser Redpoll	Acanthis cabaret	2021	Priority Species, BoCC Red
Lesser Spotted Woodpecker	Dryobates minor	2014	Priority Species, BoCC Red, DoBAP
Lesser Whitethroat	Curruca curruca	2017	-
Linnet	Linaria cannabina	2018	Priority Species, BoCC Red, DoBAP
Little Egret	Egretta garzetta	2021	Annex 1
Little Grebe	Tachybaptus ruficollis	2021	-
Little Owl	Athene noctua	2018	-
Little Ringed Plover	Charadrius dubius	2017	WCA Sch. 1, DoBAP
Long-eared Owl	Asio otus	2018	-
Long-tailed Tit	Aegithalos caudatus	2017	-
Magpie	Pica pica	2018	-
Mallard	Anas platyrhynchos	2018	BoCC Amber
Mandarin Duck	Aix galericulata	2015	-

Common (English) name	Scientific name	Year of most recent record	Conservation designation	
Marsh Harrier	Circus aeruginosus	2017	Annex 1, BoCC Amber	
Marsh Tit	Poecile palustris	2017	Priority Species, BoCC Red	
Meadow Pipit	Anthus pratensis	2018	BoCC Amber	
Merlin	Falco columbarius	2018	Annex 1, WCA Sch. 1, BoCC Red	
Mistle Thrush	Turdus viscivorus	2018	BoCC Red	
Moorhen	Gallinula chloropus	2018	BoCC Amber	
Mute Swan	Cygnus olor	2018	-	
Nuthatch	Sitta europaea	2018	DoBAP	
Oystercatcher	Haematopus ostralegus	2017	BoCC Amber	
Peregrine	Falco peregrinus	2016	Annex 1, WCA Sch. 1	
Pheasant	Phasianus colchicus	2018	-	
Pied Wagtail	Motacilla alba	2018	-	
Pink-footed Goose	Anser brachyrhynchus	2017	BoCC Amber	
Pintail	Anas acuta	2015	BoCC Amber	
Pochard	Aythya ferina	2017	BoCC Red	
Red Kite	Milvus milvus	2017	Annex 1, WCA Sch. 1	
Red-legged Partridge	Alectoris rufa	2017	-	
Redshank	Tringa totanus	2017	BoCC Amber	
Redstart	Phoenicurus phoenicurus	2017	BoCC Amber	
Redwing	Turdus iliacus	2018	WCA Sch. 1, BoCC Amber	
Reed Bunting	Emberiza schoeniclus	2018	Priority Species, BoCC Amber, DoBAP	
Reed Warbler	Acrocephalus scirpaceus	2017	-	
Robin	Erithacus rubecula	2018	-	
Rook	Corvus frugilegus	2018	BoCC Amber	
Sand Martin	Riparia riparia	2017	-	
Sedge Warbler	Acrocephalus schoenobaenus	2021	BoCC Amber	
Shelduck	Tadorna tadorna	2017	-	
Shoveler	Spatula clypeata	2018	BoCC Amber	

Common (English) name	Scientific name Year of most recent record		Conservation designation	
Siskin	Spinus spinus	2017	-	
Skylark	Alauda arvensis	2018	Priority Species, BoCC Red, DoBAP	
Snipe	Gallinago gallinago	2017	BoCC Amber, DoBAP	
Song Thrush	Turdus philomelos	2018	Priority Species, BoCC Amber, DoBAP	
Sparrowhawk	Accipiter nisus	2018	BoCC Amber	
Spotted Flycatcher	Muscicapa striata	2017	BoCC Red, DoBAP	
Starling	Sturnus vulgaris	2018	Priority Species, BoCC Red	
Stock Dove	Columba oenas	2018	-	
Swallow	Hirundo rustica	2018	-	
Swift	Apus apus	2018	BoCC Red	
Tawny Owl	Strix aluco	2017	BoCC Amber	
Teal	Anas crecca	2018	BoCC Amber	
Tree Pipit	Anthus trivialis	2017	Priority Species, BoCC Red	
Tree Sparrow	Passer montanus	2018	Priority Species, BoCC Red, DoBAP	
Treecreeper	Certhia familiaris	2017	-	
Tufted Duck	Aythya fuligula	2018	-	
Turtle Dove	Streptopelia turtur	2011	Priority Species, BoCC Red, DoBAP	
Water Rail	Rallus aquaticus	2018	-	
Wheatear	Oenanthe oenanthe	2017	BoCC Amber	
Whitethroat	Sylvia communis	2018	BoCC Amber	
Whooper Swan	Cygnus cygnus	2017	Annex 1, WCA Sch. 1, BoCC Amber	
Wigeon	Anas penelope	2020	BoCC Amber	
Willow Tit	Poecile montanus	2018	Priority Species, BoCC Red	
Willow Warbler	Phylloscopus trochilus	2018	BoCC Amber	
Woodcock	Scolopax rusticola	2017	BoCC Red	
Woodpigeon	Columba palumbus	2018	BoCC Amber	
Wren	Troglodytes troglodytes	2018	BoCC Amber	

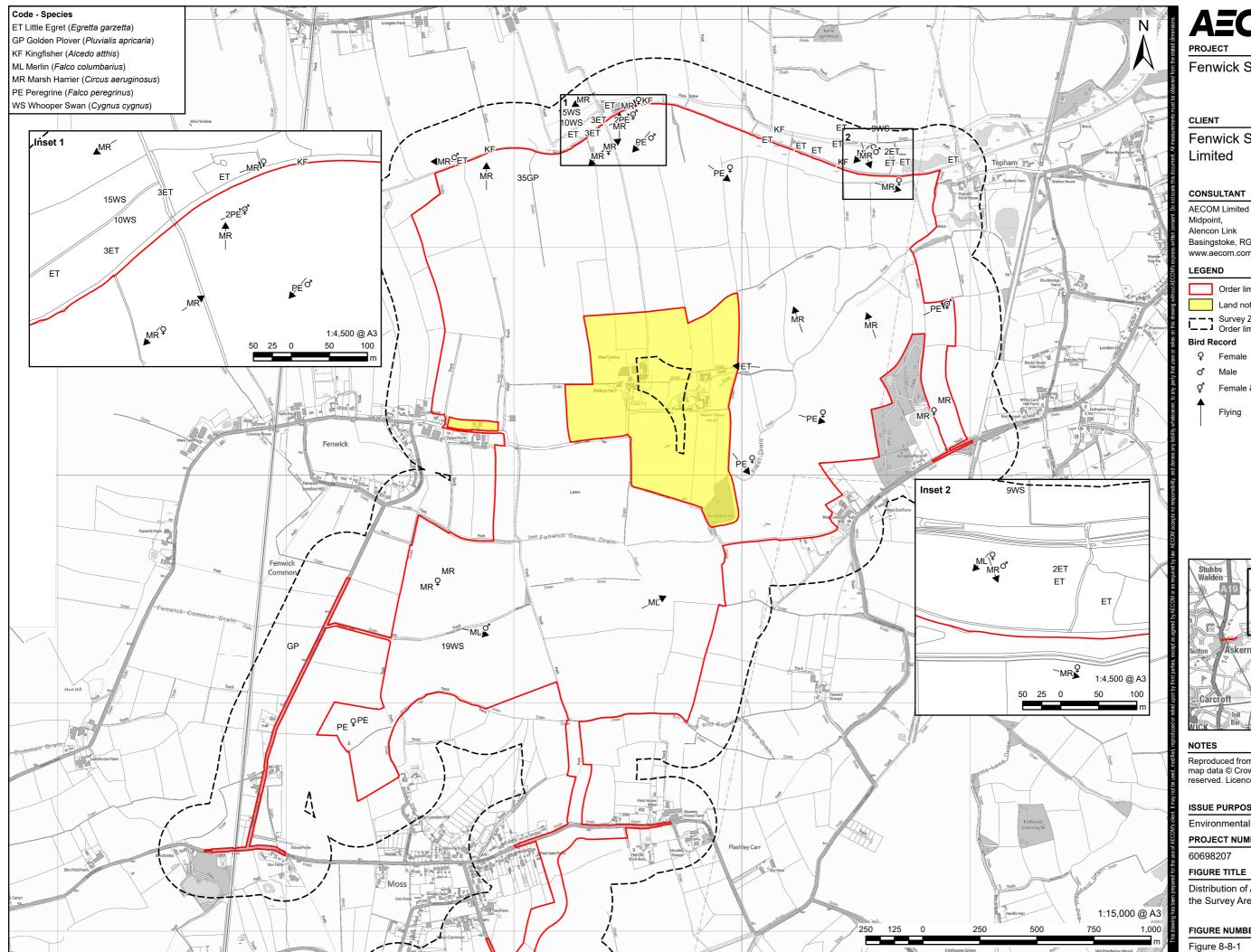
Common (English) name	Scientific name	Year of most recent record	Conservation designation
Yellow Wagtail	Motacilla flava	2021	Priority Species, BoCC Red, DoBAP
Yellowhammer	Emberiza citrinella	2018	Priority Species, BoCC Red

Annex B Survey Metadata

Survey Type	Survey Date	Survey Time(s)	Cloud cover	Wind (Beaufor t scale)	Temperatu re (Celsius)	Precipitati on
Diurnal survey						
Diurnal survey	26/09/2023	13:00 – 18:00	3-5	3 SW	18-21	Dry
Diurnal survey	27/09/2023	08:00 - 18:00	4-6	2-3 SSE	14-16	Dry
Diurnal survey	28/09/2023	08:00 – 12:30	3-6	3 SW	11-13	Dry
Diurnal survey	09/10/2023	12:30 – 17:10	1-3	2-3 WSW-W	20-21	Dry
Diurnal survey	10/10/2023	07:30 – 16:16	5-8	0-1 SE- SSE	15-20	Occasional drizzle during first two hours
Diurnal survey	11/10/2023	09:40 – 11:40	7-8	2-3 SW- NW	14-16	Dry
Diurnal survey	07/11/2023	12:00 – 16:00	4-5	3 W	11-12	Dry
Nocturnal Survey	07/11/2023	19:00 – 23:30	0	0-1 SW- S	7-8	Dry
Diurnal survey	08/11/2023	07:45 – 10:30	8	2-3 W- WSW	8-9	Drizzle during first hour
Diurnal survey	11/12/2023	12:35 – 15:40	6	1 NW	5-8	Dry
Nocturnal survey	11/12/2023	18:00 – 22:30	3-5	1 SSW- SW	4-5	Dry
Diurnal survey	12/12/2023	08:00 - 10:30	5-6	1 S	8	Dry
Diurnal survey	18/01/2024	12:00 – 16:30	0-2	1 WNW- W	2-3	Dry. Ground frozen and frosty.
Nocturnal survey	18/01/2024	18:00 – 22:00	1-2	1 SW	-1-0	Dry. Ground frozen and frosty.
Diurnal survey	19/01/2024	09:00 – 11:30	3-4	2-3 SSW	-2-2	Dry. Ground frozen and frosty.

Survey Type	Survey Date	Survey Time(s)	Cloud cover	Wind (Beaufor t scale)	Temperatu re (Celsius)	Precipitati on
Diurnal survey	12/02/2024	14:00 – 16:30	5-6	3 SW	7-8	Dry
Nocturnal survey	12/02/2024	19:00 – 23:00	6-7	2-3 SW	6	Dry
Diurnal survey	13/02/2024	08:00 – 12:00	4-7	2 SSW	6-7	Dry
Diurnal survey	11/03/2024	14:30 – 17:00	5-8	1 N	7-8	Dry
Nocturnal survey	11/03/2024	19:30 – 23:30	6-7	1 N- NNW	6	Dry
Diurnal survey	12/03/2024	09:25 – 14:00	5-7	2 SSE	6-9	Dry
Diurnal survey	20/08/2024	11:15- 17:30	3-5	3 W	19-20	Dry
Diurnal survey	21/08/2024	06:30- 13:30	3-7	2-3 W	13-18	Dry

Annex C Figures



AECOM

Fenwick Solar Farm

Fenwick Solar Project

Midpoint, Alencon Link Basingstoke, RG21 7PP www.aecom.com

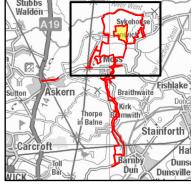
Order limits

Land not included in the Order limits

Survey Zone (200m Buffer of the Order limits)

Female & Male Pair

Flying



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ISSUE PURPOSE

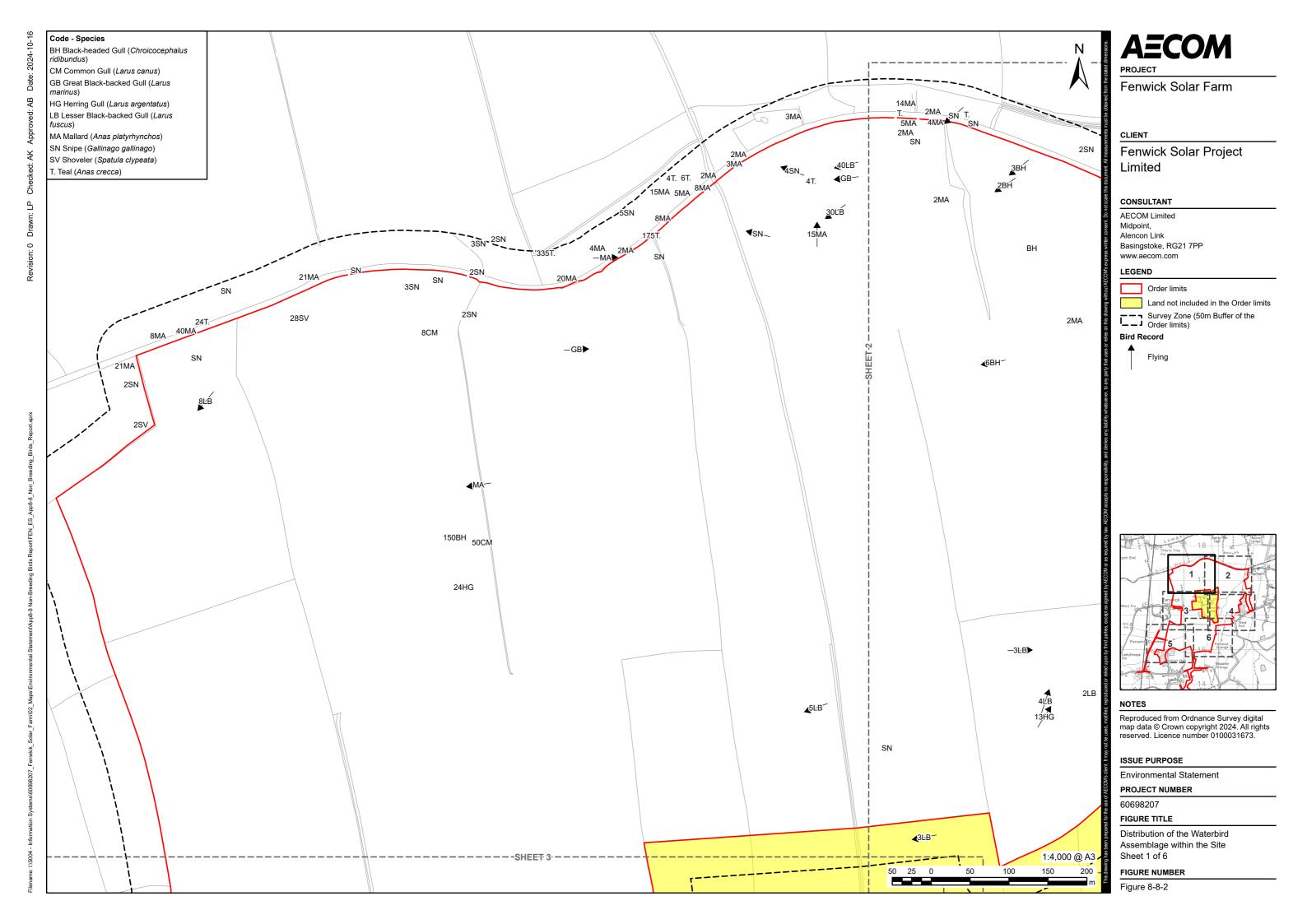
Environmental Statement

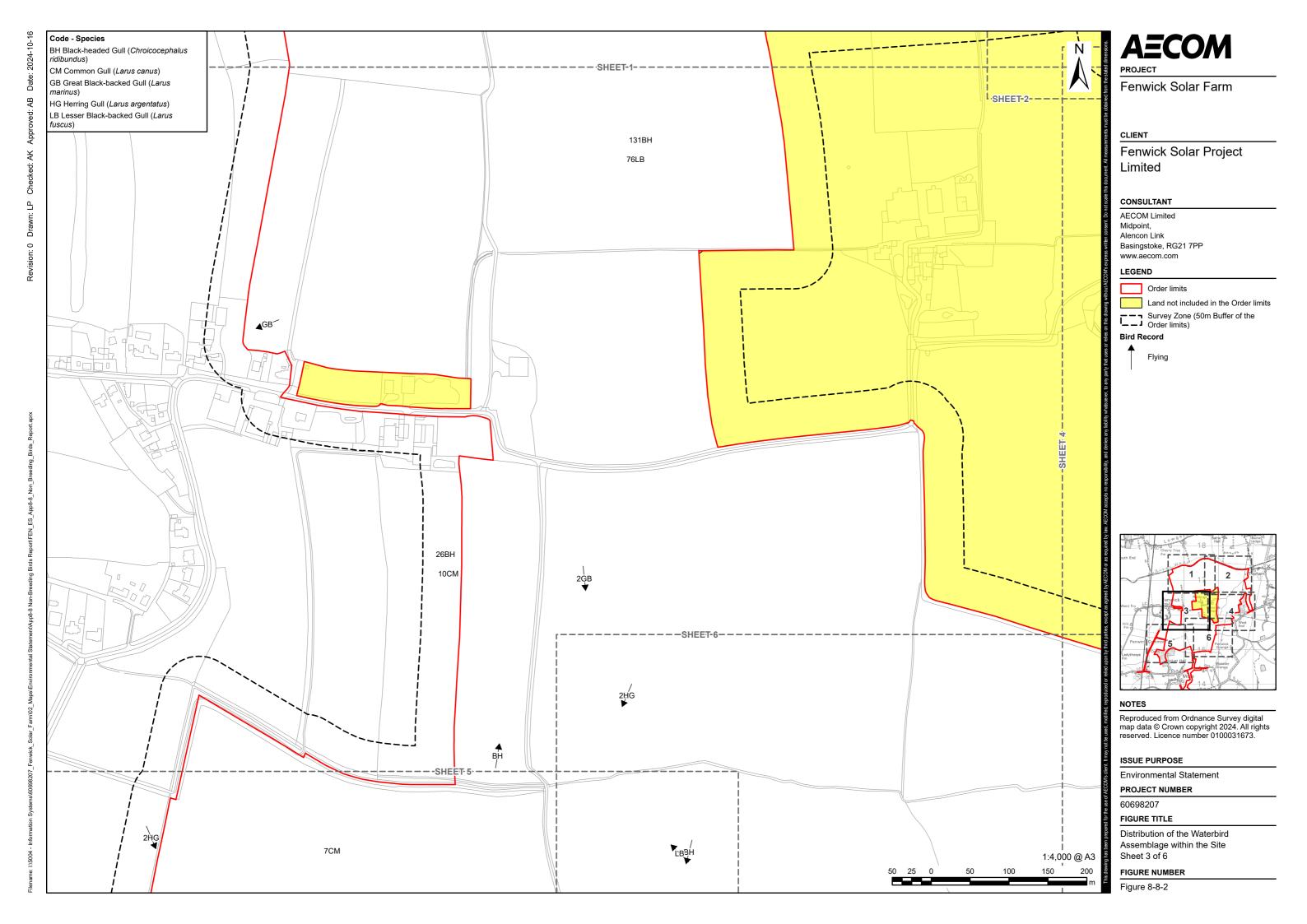
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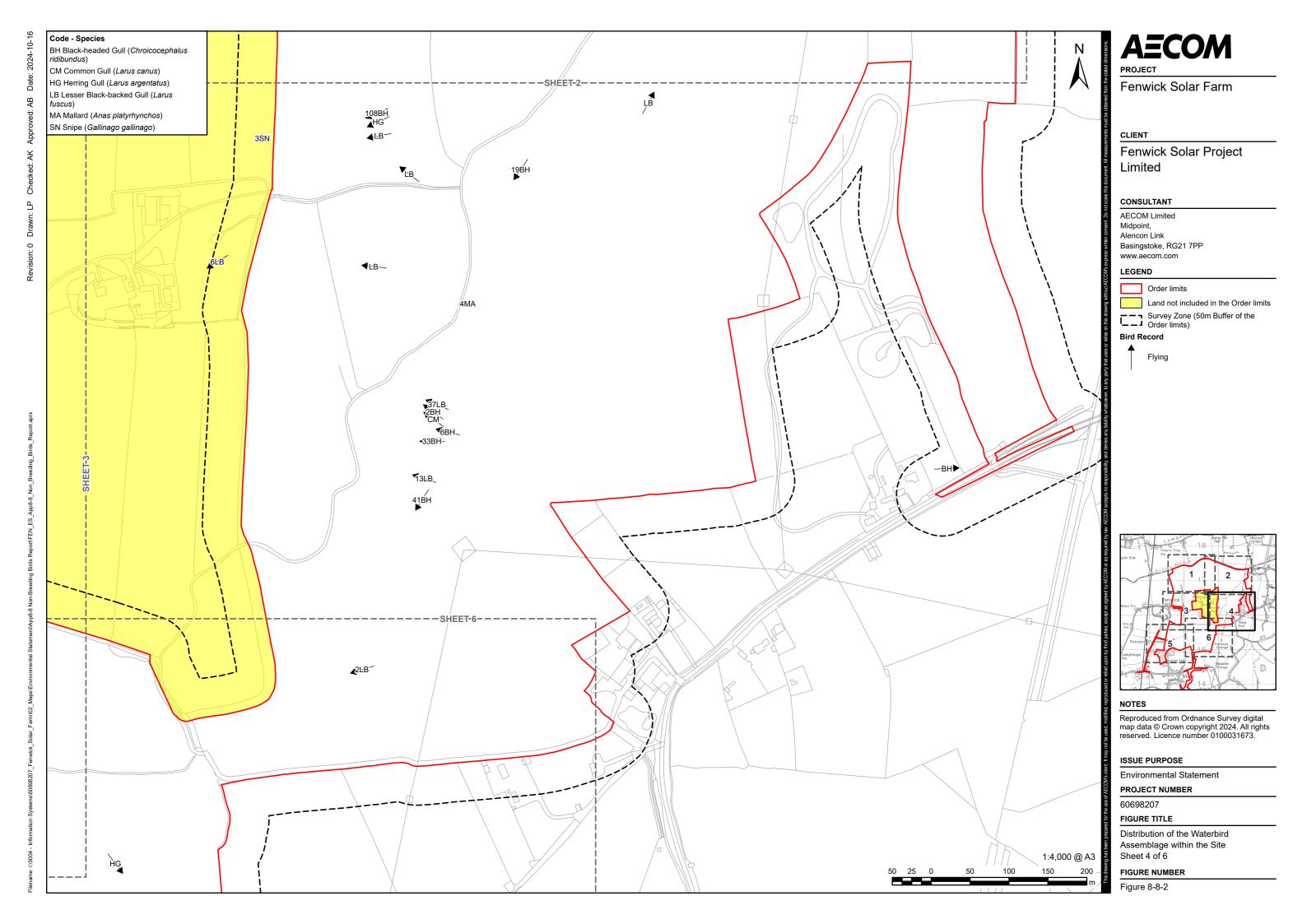
FIGURE TITLE

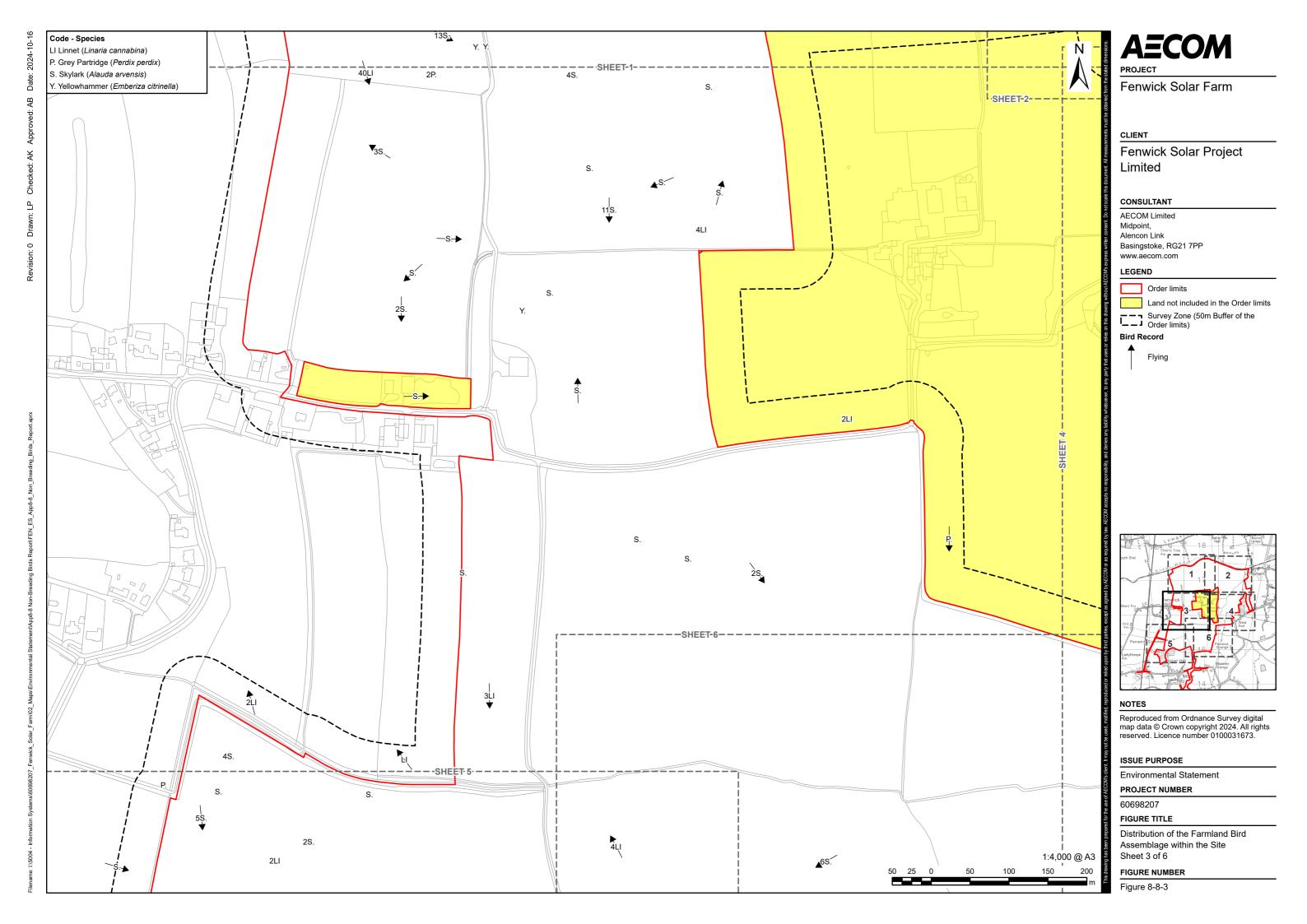
Distribution of Annex 1 Species within the Survey Area

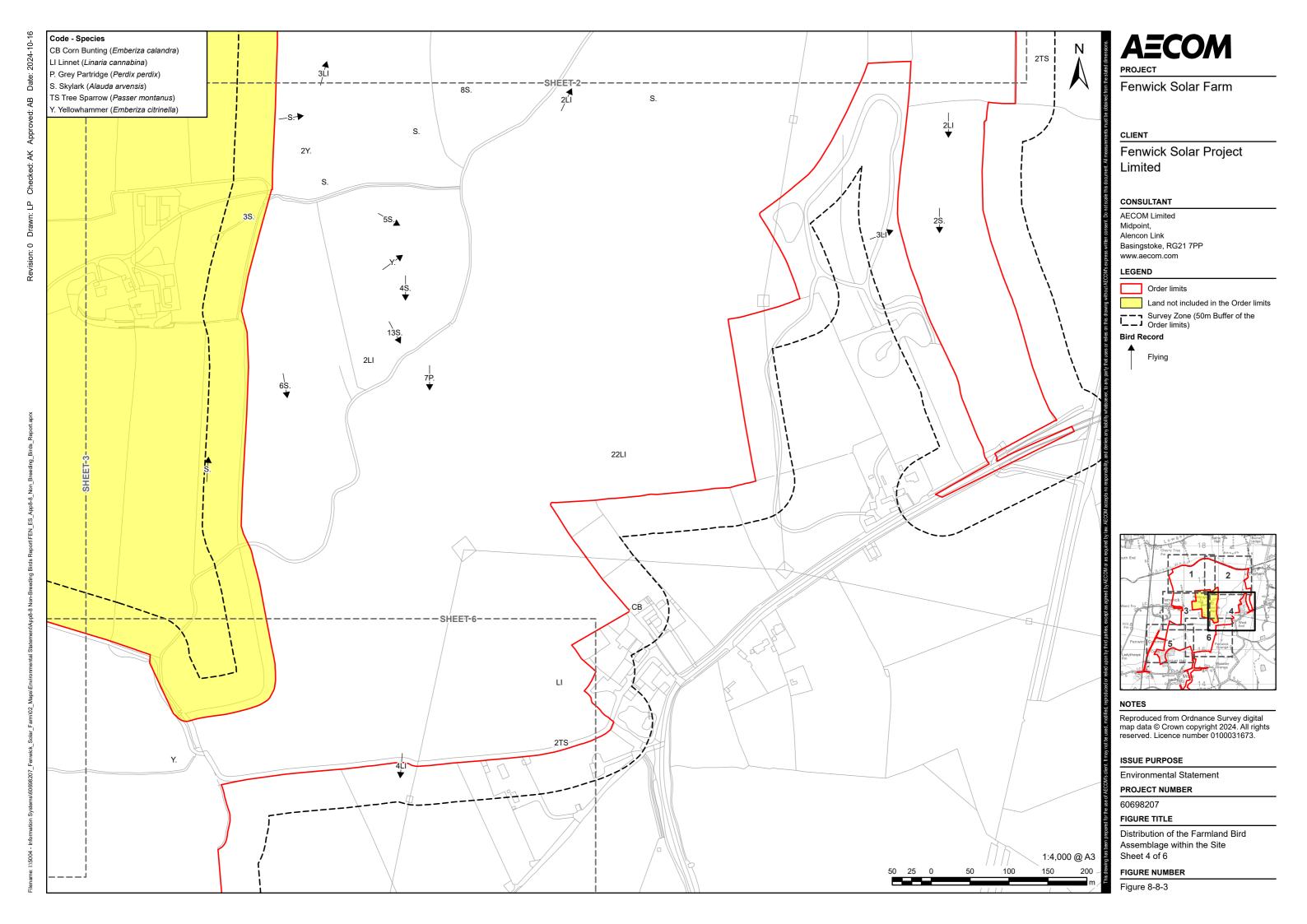
FIGURE NUMBER













BUILD | OWN | OPERATE | MAINTAIN

BOOM-POWER.CO.UK