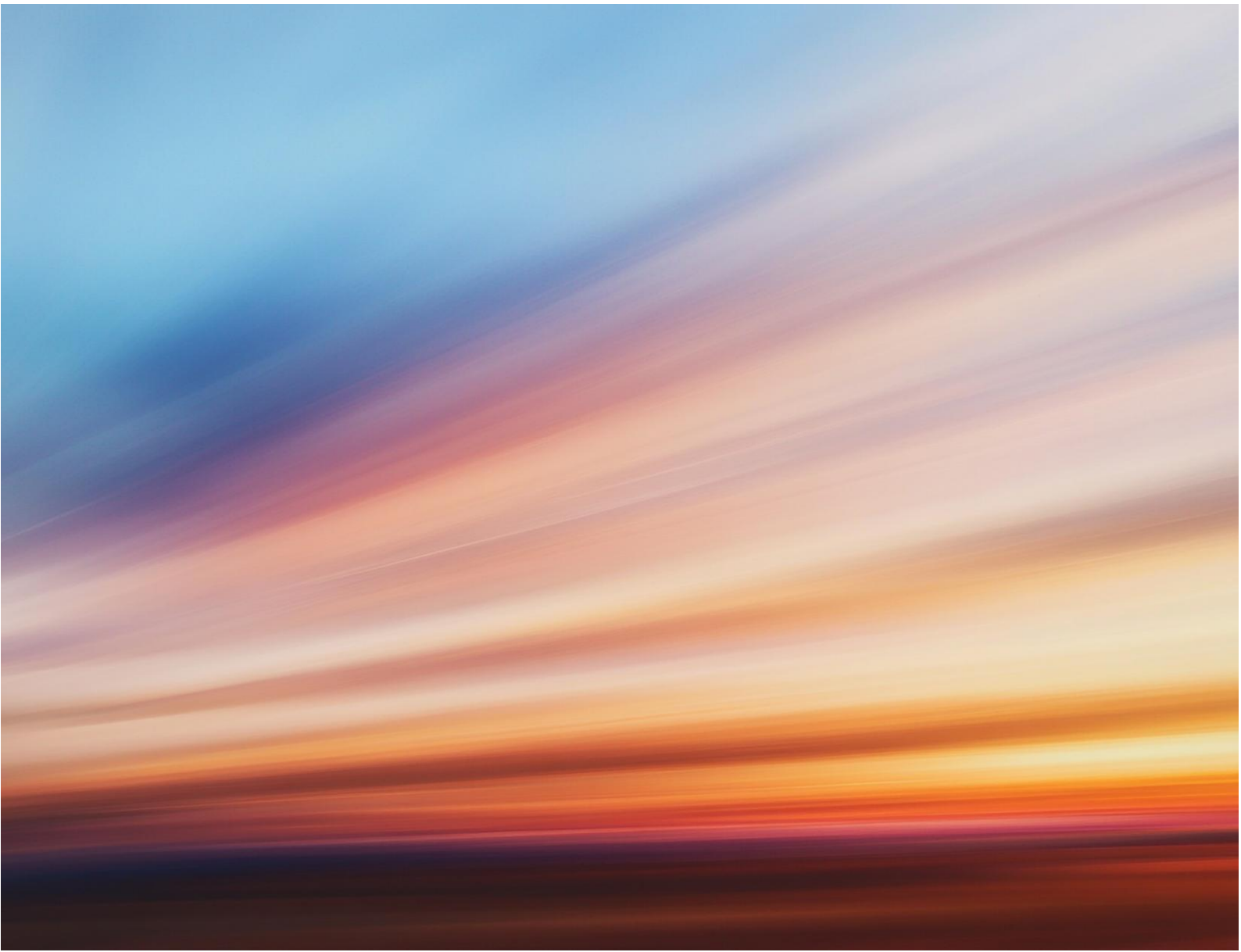
Mylen Leah Solar Farm

Preliminary Environmental Information Report (PEIR)

Volume 3

Appendix 7.4: Non-Breeding Bird Survey Report (Solar PV Development Area)

April 2026



Contents

1. Introduction

1.1 Project background

1.1.1 Avian Ecology Ltd. was commissioned by Statkraft United Kingdom (UK) on behalf of Mylen Leah Solar Limited (the Applicant) to undertake non-breeding bird surveys in relation to the proposed Mylen Leah Solar Farm.

1.1.2 The surveys in relation to Mylen Leah Solar Farm were undertaken where the solar photovoltaic (PV) development area including associated infrastructure and habitat enhancement and mitigation areas will be located, but did not include the underground grid connection corridor (refer to **Figure 1: Solar PV Development Area**).

1.1.3 The following report presents the detailed methodologies and findings of surveys undertaken between October 2023 and April 2024 ('year 1') and between August 2024 and May 2025 ('year 2').

1.1.4 The objectives of this report are to identify the presence of target non-breeding bird species (refer to **Section 2.2**).

1.1.5 **Annex A** provides a summary of all bird species recorded during the surveys. Both common and scientific names are provided, together with a summary of their conservation status, as relevant. Only common bird species names are referred to within the main text of this report.

1.2 Description of the solar PV development area

1.2.1 The solar PV development area consists of an expanse of agricultural land comprising a mixture of arable and pastoral farming, surrounded by small villages and farmsteads. Small woodland copses are present within and immediately adjacent to the solar photovoltaic (PV) development area . Fields are typically bounded by hedgerows, as well as ditches and tree lines.

1.2.2 Two European sites designated for non-breeding ornithological interests have been identified within 10km of the solar PV development area; the Lower Derwent Valley Special Protection Area (SPA) and Ramsar site. Following consultation with Natural England, the Humber Estuary SPA and Ramsar site has also been considered, as several of the qualifying bird species (such as golden plover, lapwing and pink-footed geese) are known to use land beyond 10km of the designated site boundaries. **Table 1.1** provides an overview of these designated sites.

Table 1.1: European designated sites for nature conservation with non-breeding ornithological qualifying interests

Designation	Distance and direction from the solar PV development area	Non-breeding ornithological qualifying features
Lower Derwent Valley SPA	879m north	–Bewick's swan (Non-breeding) –Wigeon (Non-breeding) –Teal (Non-breeding) –Golden plover (Non-breeding) –Ruff (Non-breeding)

Designation	Distance and direction from the solar PV development area	Non-breeding ornithological qualifying features
		–Waterbird assemblage (Non-breeding)
Lower Derwent Valley Ramsar site	879m north	–Wigeon (Wintering) –Teal (Wintering) –Waterbird assemblage (Wintering) – Staging post for migratory birds including Whimbrel and ruff (Passage)
Humber Estuary SPA	11.22km south	–Avocet (Non-breeding); –Bar-tailed godwit (Non-breeding); –Bittern (Non-breeding); –Black-tailed Godwit (Non-breeding); –Dunlin (Non-breeding); –Golden plover (Non-breeding); –Hen harrier (Non-breeding); –Knot (Non-breeding); –Redshank (Non-breeding); –Ruff (Non-breeding); –Shelduck (Non-breeding); and, –Waterbird assemblage (Non-breeding).
Humber Estuary Ramsar site	11.22km south	–Bar-tailed godwit (Wintering); –Black-tailed godwit (Wintering and Passage); –Dunlin (Wintering and Passage); –Golden plover (Wintering and Passage); –Knot (Wintering and Passage); –Redshank (Wintering and Passage); –Shelduck (Wintering); and, –Waterbird assemblage (Wintering).

1.2.3 Four statutory designated sites of national importance with non-breeding ornithological reasons for designation have been identified within 2km of the solar photovoltaic (PV) development area. **Table 1.2** provides an overview of these designated sites.

Table 1.2: National statutory designated sites for nature conservation with non-breeding ornithological reasons for designation

Designation	Distance and direction from the solar PV development area	Non-breeding ornithological Reasons for designation
Melbourne and Thornton Ings SSSI (underpins the Lower Derwent Valley Ramsar site, SAC, SPA and NNR)	879m north	Aggregations on non-breeding birds: Bewick's swan, teal, wigeon. Aggregations of non-breeding birds - variety of wintering species.
Lower Derwent Valley NNR	879m north	Wintering bird species assemblage, migratory birds and associated habitats.
Derwent Ings SSSI (underpins the Lower Derwent Valley Ramsar site, SAC, SPA, NNR).	1.12km west	Aggregations of non-breeding birds: Bewick's swan, golden plover, mallard, pochard, ruff, teal, whimbrel, wigeon. Supporting more than 20,000 non-breeding waterbirds.
River Derwent SSSI (underpins the River Derwent SAC, Lower Derwent Valley SPA and NNR)	1.45km west	Aggregations of non-breeding birds: Bewick's swan. Assemblages of breeding birds, otter, dragonfly assemblage, habitats (rivers and streams).

1.2.4 One non-statutory site designated for nature conservation with non-breeding ornithological reasons for designation was identified approximately 1.13km west of the solar PV development area. Wheldrake Ings Yorkshire Wildlife Trust Reserve, is an area of lowland meadow and pasture and wetland habitat within the Lower Derwent Valley, which supports large flocks of overwintering waders and waterfowl during winter.

2. Methodology

2.1 Non-breeding bird surveys

2.1.1 Non-breeding bird surveys were undertaken between October 2023 and April 2024 inclusive ('year 1') and between August 2024 and May 2025 inclusive ('year 2').

Survey Area

2.1.2 Surveys assessed all suitable habitats where target species were likely to be present (i.e., open agricultural land) within the solar PV development area, as well as all suitable fields within a 600m buffer (hereafter termed the 'wider survey area'), as shown on **Figure 2: Non-Breeding Bird Survey Plan**. The combination of the solar PV development area and wider survey area will be termed the 'survey area' hereafter. Whilst some areas of the underground grid connection corridor may have been surveyed within the 600m buffer, the underground grid connection corridor was not surveyed in its entirety.

2.1.3 Since the commencement of surveys in October 2023, the boundary of the solar PV development area has changed, which has resulted in the addition of fields to the survey area during year 1 and year 2. Similarly, some areas of land were removed from the solar PV development area . **Figure 2: Non-Breeding Bird Survey Plan** shows the survey coverage of fields within and adjacent to the solar PV development area.

2.1.4 For ease of interpreting the survey results, fields within the survey area were numbered 1-546 **(refer to Figure 3: Field Numbers)**. Fields within the solar PV development area (total 104) and within (or partly within) the wider survey area (total 360) are shown in **Table 2.1**.

Table 2.1: Field Numbers

Land area	Field number range
Solar PV development area	3, 7, 12-14, 35-43, 47-61, 63-77, 79-116, 187, 202, 205-206, 218, 264-266, 286, 306, 339, 345, 348-349, 357-358, 365, 370, 372, 451-453.
Wider survey area	1-2, 4-6, 8-11, 15-21, 25, 27-29, 31-32, 44-46, 62, 78, 117, 120-122, 125-126, 128, 130-136, 154, 157-158, 160-186, 188-201, 203-204, 207-217, 219-263, 267-285, 287-305, 307-338, 340-344, 346-347, 350-356, 359-364, 366-369, 371, 373-381, 385-392, 396-410, 412, 415-417, 422-425, 427-434, 437-450, 454-463, 465-495, 497-506, 533, 538-544, 546. Excluding unsuitable fields detailed in **Section 2.3.2** below.

2.1.5 Field numbers detailed above differ to the Statkraft field numbers. This is because the surveys commenced prior to the creation of Statkraft field numbers, and due to the wider survey area extending further than the Statkraft field numbers. For completeness, **Annex B** provides a list of the field numbers used during the surveys and their associated Statkraft field numbers, where relevant.

2.2 Target species

2.2.1 Target species include those listed as the main component species as defined in Natural England Annex B[1] and B1[2] guidance as provided alongside the discretionary advice service response[3], and are defined as follows:

- All species listed individually under the assemblage feature on the Humber Estuary SPA or Ramsar site citation or Lower Derwent Valley SPA or Ramsar site citation;
- Species which might not be listed on the SPA citation but occur at site levels of more than 1% of the national population according to the most recent Humber Estuary or Lower Derwent Ings Wetland Bird Survey 5-year average count; or,
- Species where more than 2,000 individuals are present according to the most recent Humber Estuary or Lower Derwent Ings Wetland Bird Survey count.

2.2.2 A list of main component species of the Lower Derwent Valley SPA/ Ramsar site and Humber Estuary SPA/ Ramsar site is provided as **Annex C**.

2.2.3 'Target species' recorded during field surveys comprised all waterbird species including all swans, geese and ducks (excluding feral species), waders, herons, grebes and gulls. Hen harrier were also recorded as a target species as they are a main component species of the Humber Estuary SPA

2.2.4 Observations of Annex 1/Schedule 1[4] raptors and owls were also recorded, along with 'secondary species', which included non-Annex 1/Schedule 1 raptors, notable flocks of non-wetland species, feral species (e.g. Canada goose and Egyptian goose) and Amber and Red-listed Birds of Conservation Concern[5] species.

2.3 Walkover surveys

2.3.1 Surveys were carried out between October 2023 and April 2024 inclusive (seven visits) in year 1, and between April 2024 and May 2025 inclusive (ten visits) in year 2. Survey dates, times and detailed survey conditions are presented in **Annex D**.

2.3.2 Walkover surveys assessed all suitable habitats within the survey area. Suitable habitats for target species surveyed within the survey area included arable/pasture fields and associated boundary features (e.g. ditches). Habitats such as woodland and scrubland were considered less suitable for waterbird species and thus were omitted from the survey.

2.3.3 Each month a single walkover survey visit was completed adopting the 'look-see' methodology (Gilbert *et al*. 1998[6]). During each survey visit surveyors observed each field within the survey area, walking the boundaries and stopping at intervals and scanning the fields for target species (as detailed in **Paragraph 2.3.1**) with binoculars.

2.3.4 All target species heard or seen were recorded onto field maps. The number of secondary species was tallied during the survey, although no attempt to map these species was made. Target species which overflew the site were

recorded on field maps, with particular attention being paid to those birds which landed within the survey area.

2.3.5 Many fields were bounded by drainage ditches. Where observations were made of target species within these ditches, they were recorded as being associated with the closest field.

2.3.6 Habitats and fields within the wider survey area were surveyed from within the solar PV development area, Public Rights of Way (PRoW) and access tracks, where possible. Access restrictions are described in limitations below.

2.3.7 Surveys were primarily undertaken during daylight hours. Nocturnal walkovers were undertaken separately and are described in **Section 2.4** below. Due to the size of the survey area, walkover surveys were undertaken over several days within the same month; this is discussed further in **Section 2.6** below.

2.3.8 All field surveys were undertaken by G. Taylor and T. Isherwood, both of whom are suitably competent and experienced ornithologists.

2.4 Nocturnal bird surveys

2.4.1 Nocturnal bird surveys were undertaken between November 2023 and April 2024 inclusive (six visits) in year 1 and between August 2024 and May 2025 (ten visits) in year 2. Nocturnal bird surveys covered all suitable habitats within the same survey area as the (daytime) walkover surveys (refer to **Figure 2: Non-Breeding Bird Survey Plan)**.

2.4.2 Each month a single nocturnal bird survey visit was completed adopting an adapted version of the 'look-see' methodology (Gilbert *et al*. 1998[6]). During each survey visit surveyors observed each field within the survey area, walking the boundaries and stopping at intervals and scanning the fields for target species, with thermal imaging cameras and recording vocalisations of birds where possible. Particular attention was paid to those birds which landed within the survey area.

2.4.3 Surveys were carried out using Pulsar Lexion thermal imaging cameras used to aid detection of species (where possible, birds were recorded to the level of species). Where individual birds were unidentifiable due to distance or small size of the species, surveyors used knowledge of behaviour and suitable habitat for these species to make an informed estimate of a species group e.g., *Calidris* wader (sanderling or dunlin).

2.4.4 Field surveys were undertaken by G. Taylor, a suitably qualified and experienced ornithologist and a second surveyor, for surveyor safety associated with nocturnal working.

2.4.5 Survey dates, times and detailed survey conditions are presented in **Annex D**.

2.5 Vantage point flight activity surveys

2.5.1 Vantage point flight activity surveys were undertaken between November 2023 and April 2024 in year 1 and between August 2024 and May 2025 in year 2.

2.5.2 Vantage point flight activity surveys were undertaken from four locations:

- Vantage point one – SE 72946 41378
- Vantage point two – SE 75238 42497

- Vantage point three – SE 76600 40749
- Vantage point four – SE 76930 38485

2.5.3 **Figure 4: Vantage Point Locations and Viewsheds** shows the vantage point locations used and their viewshed coverage which appropriately covered the survey area.

2.5.4 The vantage point flight activity surveys followed the NatureScot guidance[7] which although intended for wind farm developments, is considered appropriate to use for proposed solar farms in the absence of guidance specific to solar farm developments. Whilst NatureScot guidance[8] does not specifically recommend VP surveys of solar farms, the guidance does state that '*Bird surveys for solar PV proposals should be proportionate to the specific proposal'*, with more detailed surveys being required where areas are connected to protected area.

2.5.5 Surveys were carried out over a three-hour period and flights and activity of target species were recorded onto basemaps. Information recorded included flight heights, started time, duration, number of each species recorded and any additional notes on behaviour (e.g. foraging). Any activity by secondary species was also recorded every 15 minutes, but detailed flights of these species were not recorded.

2.5.6 All surveys were undertaken during daylight hours. Survey dates, times and detailed survey conditions are presented in **Annex D**

2.5.7 Field surveys were undertaken by G. Taylor, a suitably qualified and experienced ornithologist.

2.6 Field survey limitations

2.6.1 Due to the size of the survey area, monthly walkover visits were undertaken over several days. Where possible, surveys were carried out over consecutive days; however, this was not always possible due to weather and surveyor availability constraints. As such the total counts presented in the results section below could include some double counting, should the same birds be using different areas of the survey area over multiple days. This could lead to an overestimation of bird numbers; as such peak counts have also been provided. The peak counts comprise the largest flock observed in any one field during the survey visit; however, there is a potential for this to be an underestimation of bird numbers. While this is not considered to be a significant limitation, as the results provide an overview of the birds using the survey area, both total and peak counts should be taken into consideration when using the data in future assessments.

2.6.2 In response to the design of Mylen Leah Solar Farm, the boundary of the solar PV development area has evolved over time. Iterative survey coverage and access is shown on **Figure 2: Non-Breeding Bird Survey Plan**. Notwithstanding access restrictions, fields numbered 1 to 436 were included throughout the survey period, with fields numbered 437 to 504 included from January 2024 and fields 538 to 546 included from September 2024. With the exception of fields 451 to 453, all fields within the solar PV development area were surveyed continuously as part of what was previously the 600m buffer area.

2.6.3 Access was not permitted to the following fields: 182-186, 212, 213, 332, 350-358. In such cases, fields were surveyed, where possible from other areas of the solar PV development area, PRoW or public roads. Fields not accessed, or with limited access represent a small amount of the overall survey area, and their omission is not considered a substantive limitation, with surveys providing a representative assessment of bird use within the survey area.

2.6.4 Nocturnal surveys were aided by Pulsar night vision scopes, identification to species level was not always possible, so surveyors used knowledge of likely species and their behaviour to identify species as best as possible.

2.6.5 During the October 2023 day-time walkover survey, shooting was heard beyond the survey area. This may have had an impact on bird behaviour on that occasion, however the results are considered to represent the baseline conditions and so this is not considered a significant limitation to the assessment. Shooting, or other significantly disturbing activities, were not noted on other occasions.

2.6.6 During some surveys, weather conditions were considered to be sub-optimal, with heavy showers or heavy rain recorded. Whilst it is acknowledged that some surveys were undertaken in sub-optimal conditions, the vast majority of the surveys were undertaken in suitable weather conditions. As such, it is considered that the weather conditions do not pose a significant limitation to the survey results. Instances of surveys undertaken in sub-optimal weather conditions are presented within **Annex D**.

2.6.7 Vantage point four was not surveyed in April or May 2025 (year 2) due to restrictions on landowner access, with part of the area being removed from the solar PV development area. Whilst this is a limitation to the data collected, it is not considered to be a significant limitation as data collection spanned two years, with vantage point four surveyed for the majority of this period.

2.6.8 No significant limitations in the field survey data in informing the design and assessment of Mylen Leah Solar Farm are therefore identified.

2.7 Targeted whimbrel surveys

2.7.1 Following consultation with Natural England through the discretionary advice service, it was identified that fields within the solar PV development area are known to support whimbrel during the spring passage season. As such, targeted surveys of these fields as identified by Natural England were undertaken over the period in which whimbrel are known to be present.

2.7.2 Natural England advised that:

"Whimbrel are historically present in the Lower Derwent Valley in the spring passage from April 16 to May 10 in totality, though April 21 to May 04 cover 90% of all records – with numbers peaking April 30 to May 01. We suggest a number of surveys around the peak period of April 30 to May 01…The areas you'll be surveying are daytime feeding fields, so no nocturnal surveys are required."

2.7.3 As such six daytime visits were undertaken between 25 April and 3 May 2025 to assess whimbrel use of fields 451-453, as shown on **Figure 5: Whimbrel Survey Area**.

2.7.4 Surveys were undertaken by G. Taylor and involved scanning areas with the aid of binoculars to identify any whimbrel using the area.

3. Results

3.1 Walkover surveys

Solar PV development area

Year 1

3.1.1 During the year 1 walkover surveys a total of 15 target species were recorded using the solar PV development area, including five that are a main component species of the Lower Derwent Valley SPA and Ramsar site, and nine that are main component species of the Humber Estuary SPA and Ramsar site (refer to **Table 3.1**). The peak count is taken to be the highest number of birds using any one field over each survey period (each consisting of several days). The total count is the sum of all birds of the given species considered to be using the survey area over a survey period. The total count only includes species landed, such as for roosting or foraging, and excludes any birds flying over.

3.1.2 In addition to species listed below, the following records where numbers of birds were unable to be attributed to each species were recorded:

- Survey 3 – Field 66 – mixed flock of 50 lapwing and golden plover with numbers of each species unable to be determined.

3.1.3 The following secondary species were recorded using the solar PV development area: buzzard, Canada goose, chaffinch, Egyptian goose, fieldfare, grey partridge, kestrel, linnet, meadow pipit, pied wagtail, redwing, reed bunting, skylark and starling.

3.1.4 Additionally, kestrel, marsh harrier, red kite and sparrowhawk were recorded flying over the solar PV development area.

3.1.5 Further details of the survey results including the field numbers and number of landed birds within each field are detailed within **Annex E**.

Table 3.1: Year 1 walkover survey results - target species recorded within the solar PV development area

Species	Survey number	Peak count	Total count
Black-headed gull	2 – Nov 2023	274	276
	3 – Dec 2023	211	211
	4 – Jan 2023	39	125
	5 – Feb 2023	68	127
	6 – Mar 2024	98	98
Maximum		*274*	*276*
Common gull	1 – Oct 2023	23	23
	2 – Nov 2023	21	29
	3 – Dec 2023	5	5
	4 – Jan 2024	88	167
	5 – Feb 2024	222	301
	6 – Mar 2024	54	54
Maximum		*222*	*301*

Species	Survey number	Peak count	Total count
Curlew	5 – Feb 2024	7	7
	6 – Mar 2024	2	2
	7 – Apr 2024	2	7
Maximum		*7*	*7*
Golden plover	3 – Dec 2023	285	285
	6 – Mar 2024	630	630
Maximum		*630*	*630*
Goosander	2 – Nov 2023	2	2
Maximum		*2*	*2*
Grey heron	2 – Nov 2023	1	1
	4 – Jan 2024	1	1
	5 – Feb 2024	1	1
Maximum		*1*	*1*
Greylag goose	4 – Jan 2024	6	6
	5 – Feb 2024	16	16
	6 – Mar 2024	6	10
	7 – Apr 2024	4	8
Maximum		*16*	*16*
Herring Gull	4 – Jan 2024	33	54
Maximum		*33*	*54*
Lapwing	3 – Dec 2023	66	66
	4 – Jan 2023	68	154
	5 – Feb 2024	181	181
	6 – Mar 2024	2	4
	7 – Apr 2024	2	4
Maximum		*181*	*181*
Little egret	7 – Apr 2024	1	1
Maximum		*1*	*1*
Mallard	1 – Oct 2023	153	153
	2 – Nov 2023	20	20
	3 – Dec 2023	14	18
	4 – Jan 2024	6	6
	5 – Feb 2024	2	4
	6 – Mar 2024	5	7
	7 – Apr 2024	2	2
Maximum		*153*	*153*
Oystercatcher	6 – Mar 2024	2	2
	7 – Apr 2024	3	4
Maximum		*3*	*4*
Pink-footed goose	4 – Jan 2024	117	155
	5 – Feb 2024	439	439
	6 – Mar 2024	457	457
Maximum		*457*	*457*
Shelduck	6 – Mar 2024	2	2
	7 – Apr 2024	4	6

Species	Survey number	Peak count	Total count
Maximum		*4*	*6*
Snipe	4 – Jan 2024	1	1
Maximum		*1*	*1*

Year 2

3.1.6 During the year 2 walkover surveys, a total of 18 target species were recorded using the solar PV development area, including seven which are main component species of the Lower Derwent Valley SPA and Ramsar site and nine which are main component species of the Humber Estuary SPA and Ramsar site. Target species which were recorded within the solar PV development area are listed in **Table 3.2** with further details including the field numbers and number of landed birds within each field is detailed within **Annex E**.

3.1.7 The following secondary species were recorded using the solar PV development area: blackbird, buzzard, Canada goose, chaffinch, Egyptian goose, fieldfare, kestrel, meadow pipit, mistle thrush, pied wagtail, red-legged partridge, redwing, skylark, starling, stonechat, swallow and yellowhammer.

3.1.8 Additionally, buzzard, kestrel, red kite and sparrowhawk were observed flying over the solar PV development area.

Table 3.2: Year 2 walkover survey results - target species recorded within the solar PV development area

Species	Survey Number	PeakCount	Total Count
Black-headed gull	1 – Aug 2024	29	35
	2 – Sept 2024	11	31
	4 – Nov 2024	9	16
	5 – Dec 2024	4	4
	6 – Jan 2025	2	2
	7 – Feb 2025	29	29
	8 – Mar 2025	29	29
Maximum		*29*	*35*
Common gull	1 – Aug 2024	103	103
	2 – Sept 2024	67	183
	6 – Jan 2025	1	1
	7 – Feb 2025	1	1
Maximum		*103*	*183*
Coot	7 – Feb 2025	2	2
	8 – Mar 2025	2	2
Maximum		*2*	*2*
Curlew	8 – Mar 2025	2	2
	9 – Apr 2025	1	2
	10 – May 2025	2	2
Maximum		*2*	*2*
Garganey	6 – Jan 2025	1	1
Maximum		*1*	*1*
Golden plover	4 – Nov 2024	7	10

Species	Survey Number	PeakCount	Total Count
	6 – Jan 2025	81	81
Maximum		*81*	*81*
Grey heron	1 – Aug 2024	1	1
	8 – Mar 2025	1	1
Maximum		*1*	*1*
Greylag goose	2 – Sept 2024	245	346
	4 – Nov 2024	168	168
	8 – Mar 2025	8	30
	9 – Apr 2025	2	2
Maximum		*245*	*346*
Herring gull	5 – Dec 2024	4	4
Maximum		*4*	*4*
Lapwing	3 – Oct 2024	4	4
	4 – Nov 2024	129	357
	6 – Jan 2025	88	220
	8 – Mar 2025	5	5
	9 – Apr 2025	2	2
	10 – May 2025	2	2
Maximum		*129*	*357*
Lesser black-backed gull	1 – Aug 2024	3	3
	2 – Sept 2024	2	4
Maximum		*3*	*4*
Mallard	4 – Nov 2024	63	63
	5 – Dec 2024	15	19
	7 – Feb 2025	2	2
	8 – Mar 2025	50	57
Maximum		*63*	*63*
Oystercatcher	9 – Apr 2025	1	1
Maximum		*1*	*1*
Pink-footed goose	8 – Mar 2025	4	4
Maximum		*4*	*4*
Red Kite	2 – Sept 2024	1	1
	7 – Feb 2025	2	2
Maximum		*2*	*2*
Ruff	6 – Jan 2025	2	2
Maximum		*2*	*2*
Whimbrel	9 – Apr 2025	7	7
Maximum		*7*	*7*
Yellow-legged gull	2 – Sept 2024	1	1
Maximum		*1*	*1*

Wider survey area

Year 1

3.1.9 During the year 1 walkover surveys, a total of 19 target species were recorded using the wider survey area, including six that are a main component species of the Lower Derwent Valley SPA and Ramsar site and 11 that are a main component species of the Humber Estuary SPA and Ramsar site. Target species recorded within the wider survey area are listed in **Table 3.3** with further details including the field numbers and number of landed birds within each field is detailed within **Annex E**.

3.1.10 The following secondary species were recorded using the wider survey area: barn owl, blackbird, buzzard, Canada goose, corn bunting, Egyptian goose, fieldfare, grey partridge, kestrel, little owl, redwing, short eared owl, song thrush, sparrowhawk and starling.

3.1.11 Additional species observed flying over the wider survey area comprised buzzard, kestrel, peregrine, red kite and sparrowhawk.

Table 3.3: Year 1 walkover survey results – target species recorded within the wider survey area

Species	Survey number	Peak count	Total count
Black-headed gull	1 – Oct 2023	284	380
	2 – Nov 2023	205	521
	3 – Dec 2023	217	671
	4 – Jan 2024	110	227
	5 – Feb 2024	630	1511
	6 – Mar 2024	130	148
Maximum		*630*	*1511*
Common gull	1 – Oct 2023	642	757
	2 – Nov 2023	312	577
	3 – Dec 2023	18	46
	4 – Jan 2024	7	10
	5 – Feb 2024	64	151
	6 – Mar 2024	37	54
Maximum		*642*	*757*
Curlew	5 – Feb 2024	2	2
	6 – Mar 2024	6	10
	7 – Apr 2024	2	2
Maximum		*6*	*10*
Dunlin	3 – Dec 2023	67	69
	4 – Jan 2024	5	5
Maximum		*67*	*69*
Garganey	1 – Oct 2023	2	2
Maximum		*2*	*2*
Golden plover	1 – Oct 2023	82	82
	3 – Dec 2023	385	389
	4 – Jan 2024	382	382
Maximum		*385*	*389*

Species	Survey number	Peak count	Total count
Greylag goose	1 – Oct 2023	1	1
	2 – Nov 2023	1	1
	4 – Jan 2024	7	7
	5 – Feb 2024	13	32
	6 – Mar 2024	2	8
	7 – Apr 2024	12	15
Maximum		*13*	*32*
Herring gull	1 – Oct 2023	8	13
	2 – Nov 2023	19	29
	6 – Mar 2024	1	2
Maximum		*19*	*29*
Lapwing	1 – Oct 2023	182	182
	2 – Nov 2023	17	33
	3 – Dec 2023	89	282
	4 – Jan 2024	262	516
	5 – Feb 2024	326	326
	6 – Mar 2024	4	6
	7 – Apr 2024	6	8
Maximum		*326*	*516*
Lesser black-backed gull	1 – Oct 2023	113	155
	2 – Nov 2023	2	2
Maximum		*113*	*155*
Little egret	6 – Mar 2024	1	1
	7 – Apr 2024	2	2
Maximum		*2*	*2*
Mallard	2 – Nov 2023	39	55
	3 – Dec 2023	17	30
	4 – Jan 2024	2	2
	5 – Feb 2024	14	20
	6 – Mar 2024	6	12
	7 – Apr 2024	4	6
Maximum		*39*	*55*
Mute swan	5 – Feb 2024	2	2
Maximum		*2*	*2*
Oystercatcher	6 – Mar 2024	2	2
Maximum		*2*	*2*
Peregrine	6 – Mar 2024	2	2
Maximum		*2*	*2*
Pink-footed goose	4 – Jan 2024	181	181
	5 – Feb 2024	142	143
Maximum		*181*	*181*
Shelduck	5 – Feb 2024	2	4
	7 – Apr 2024	2	3
Maximum		*2*	*4*
Teal	6 – Mar 2024	13	15

Species	Survey number	Peak count	Total count
Maximum		*13*	*15*
Yellow-legged gull	1 – Oct 20231	2	2
Maximum		*2*	*2*

Year 2

3.1.12 During the year 2 walkover surveys a total of 22 target species were recorded using the wider survey area, including seven that are a main component species of the Lower Derwent Valley SPA and Ramsar site and ten that are a main component species of the Humber Estuary SPA and Ramsar site. The target species recorded within the wider survey area are listed in **Table 3.4**, with further details including the field numbers and number of landed birds within each field provided in **Annex E**.

3.1.13 In addition to species listed below, the following records where numbers of birds were unable to be attributed to each species were recorded:

- Survey 5 – Field 249 – Mallard and greylag goose heard but not seen
- Survey 5 – Field 364 – Mallard heard but not seen

3.1.14 The following secondary species were recorded using the wider survey area: buzzard, Canada goose, chaffinch, Egyptian goose, fieldfare, goldfinch, grey partridge, kestrel, linnet, meadow pipit, pied wagtail, red kite, red-legged partridge, redwing, skylark, sparrowhawk, starling, swallow and yellowhammer.

3.1.15 Additional species observed flying over the wider survey area comprised barn owl, buzzard, hobby, kestrel, red kite and sparrowhawk.

Table 3.4: Year 2 walkover survey results – target species recorded within the wider survey area

Species	Survey Number	Peak count	Total Count
Black-headed gull	1 – Aug 2024	2	2
	2 – Sept 2024	26	33
	3 – Oct 2024	179	316
	4 – Nov 2024	301	557
	5 – Dec 2024	696	1021
	6 – Jan 2025	117	284
	7 – Feb 2025	79	285
Maximum		*696*	*1021*
Common gull	1 – Aug 2024	7	7
	2 – Sept 2024	43	125
	3 – Oct 2024	188	238
	4 – Nov 2024	14	44
	5 – Dec 2024	166	244
	6 – Jan 2025	109	150
	7 – Feb 2025	117	431
	8 – Mar 2025	1	1

Species	Survey Number	Peak count	Total Count
Maximum		*188*	*244*
Common sandpiper	2 – Sept 2024	1	1
Maximum		1	1
Common tern	9 – Apr 2025	1	1
Maximum		*1*	*1*
Curlew	8 – Mar 2025	5	8
	9 – Apr 2025	2	6
	10 – May 2025	2	2
Maximum		*5*	*8*
Dunlin	6 – Jan 2025	3	3
Maximum		*3*	*3*
Golden plover	4 – Nov 2024	4	4
	6 – Jan 2025	23	41
Maximum		*23*	*41*
Great black-backed gull	4 – Nov 2024	1	1
	5 – Dec 2024	4	4
	6 – Jan 2025	4	6
Maximum		*4*	*6*
Grey heron	3 – Oct 2024	2	2
	5 – Dec 2024	1	1
Maximum		*2*	*2*
Greylag goose	1 – Aug 2024	68	68
	2 – Sept 2024	2	2
	3 – Oct 2024	22	26
	4 – Nov 2024	140	166
	5 – Dec 2024	1	2
	7 – Feb 2025	63	86
	8 – Mar 2025	8	26
	9 – Apr 2025	7	13
	10 – May 2025	14	14
Maximum		*140*	*166*
Herring gull	2 – Sept 2024	5	7
	4 – Nov 2024	103	150
	5 – Dec 2024	1	2
	6 – Jan 2025	311	359
	7 – Feb 2025	12	13
Maximum		*311*	*359*
Lapwing	2 – Sept 2024	4	7
	3 – Oct 2024	103	104
	4 – Nov 2024	88	313
	6 – Jan 2025	246	646
	8 – Mar 2025	4	5
	9 – Apr 2025	1	1
Maximum		*246*	*646*
	2 – Sept 2024	5	10

Species	Survey Number	Peak count	Total Count
Lesser black-backed gull	3 – Oct 2024	8	10
Maximum		*8*	*10*
Mallard	1 – Aug 2024	23	23
	2 – Sept 2024	37	37
	3 – Oct 2024	11	11
	5 – Dec 2024	6	7
	7 – Feb 2025	6	6
	8 – Mar 2025	16	34
	10 – May 2025	8	8
Maximum		*37*	*37*
Moorhen	3 – Oct 2024	2	2
Maximum		*2*	*2*
Oystercatcher	8 – Mar 2025	1	1
	9 – Apr 2025	1	1
	10 – May 2025	4	4
Maximum		*4*	*4*
Pink-footed goose	7 – Feb 2025	547	547
Maximum		*547*	*547*
Shelduck	7 – Feb 2025	2	2
	8 – Mar 2025	1	1
Maximum		*2*	*2*
Snipe	4 – Nov 2024	2	2
Maximum		*2*	*2*
Tufted duck	10 – May 2025	1	1
Maximum		*1*	*1*
Whimbrel	9 – Apr 2025	10	10
	10 – May 2025	5	5
Maximum		*10*	*10*
Whooper swan	7 – Feb 2025	2	2
Maximum		*2*	*2*

3.2 Nocturnal surveys

Solar PV development area

Year 1

3.2.1 The Year 1 nocturnal surveys recorded a total of 14 target species within the solar PV development area, including five that are a main component species of the Lower Derwent Valley SPA and Ramsar site and ten that a main component species of the Humber Estuary SPA and Ramsar site. Target species recorded within the solar PV development area are listed in **Table 3.5**.

3.2.2 In addition to species listed below, the following records where numbers of birds were unable to be attributed to species level were recorded:

- Survey 1 – Field 40 – Teal and mallard heard calling but not seen

- Survey 1 – Field 103 – Mixed flock of 30 teal, wigeon and mallard
- Survey 2 – Field 40 – Small number of mallard heard but not seen
- Survey 4 – Field 106 – Mixed flock of 220 teal, wigeon and mallard
- Survey 4 – Field 106 – Mixed flock of 74 teal, wigeon and mallard
- Survey 5 – Field 86 – Small number of wigeon heard but not seen

3.2.3 The above records are indicated with an asterisk (*) in Table 3.5 below.

3.2.4 The following secondary species were recorded using the solar PV development area: barn owl buzzard, Canada goose, Egyptian Goose, fieldfare, grey partridge and tawny owl.

3.2.5 Additional species observed flying over the wider survey area comprised barn owl.

Table 3.5: Year 1 nocturnal survey results – target species recorded within the solar PV development area

Species	Survey number	Peak count	Total count
Curlew	5 – Mar 2024	2	5
Maximum		*2*	*5*
Golden plover	3 – Jan 2024	20	42
Maximum		*20*	*42*
Grey heron	4 – Feb 2024	1	1
Maximum		*1*	*1*
Greylag goose	2 – Dec 2023	79	79
	3 – Jan 2024	5	5
	4 – Feb 2024	96	155
	6 – Apr 2024	2	4
Maximum		*96*	*155*
Lapwing	1 – Nov 2023	90	109
	2 – Dec 2023	20	20
	4 – Feb 2024	15	17
Maximum		*90*	*109*
Mallard	1 – Nov 2023	75	105
	2 – Dec 2023	9	16
	4 – Feb 2024	*	*
	5 – Mar 2024	2	3
	6 – Apr 2024	2	2
Maximum		*75*	*105*
Mute swan	3 – Jan 2024	1	1
Maximum		*1*	*1*
Oystercatcher	5 – Mar 2024	4	6
Maximum		*4*	*6*
Pink-footed Goose	3 – Jan 2024	200	200
Maximum		*200*	*200*
Shelduck	5 – Mar 2024	2	2
Maximum		*2*	*2*

Species	Survey number	Peak count	Total count
Snipe	4 – Feb 2024	1	1
Maximum		*1*	*1*
Teal	1 – Nov 2023	*	*
	2 – Dec 2023	12	12
	3 – Jan 2024	124	128
	4 – Feb 2024	*	*
	5 – Mar 2024	10	10
Maximum		*124*	*128*
Wigeon	1 – Nov 2023	*	*
	2 – Dec 2023	4	4
	3 – Jan 2024	8	10
	4 – Feb 2024	*	*
	5 – Mar 2024	*	*
Maximum		*8*	*10*
Woodcock	1 – Nov 2023	6	14
	2 – Dec 2023	4	7
	3 – Jan 2024	30	50
	4 – Feb 2024	15	31
Maximum		*30*	*50*

Year 2

3.2.6 The year 2 nocturnal surveys recorded a total of 94 target species within the solar PV development area, including four that are a main component species of the Lower Derwent Valley SPA and Ramsar site and six that a main component species of the Humber Estuary SPA and Ramsar site.

3.2.7 Target species recorded within the solar PV development area are listed in **Table 3.6**.

3.2.8 In addition to species listed below, the following records where numbers of birds were unable to be attributed to species level were recorded:

- Survey 5 – Field 94 – Mixed flock of mallard, wigeon and teal heard but not seen
- Survey 7 – field 93 – Unknown number of teal heard but not seen
- Survey 8 – Field 70 – Unknown number of mallard heard but not seen

3.2.9 The above records are indicated with an asterisk (*) in Table 3.6 below.

3.2.10 The following secondary species were recorded using the solar PV development area: barn owl, buzzard, Canada goose, Egyptian goose, fieldfare, grey partridge, little owl, skylark and tawny owl.

3.2.11 Additional species observed flying over the wider survey area comprised barn owl, buzzard and tawny owl.

Table 3.6: Year 2 nocturnal survey results – target species recorded within the solar PV development area

Species	Survey number	Peak count	Total count
Greylag goose	2 – Sept 2024	1	1

Species	Survey number	Peak count	Total count
	3 – Oct 2024	12	12
	4 – Nov 2024	100	100
	6 – Jan 2025	44	44
Maximum		*100*	*100*
Lapwing	3 – Oct 2024	212	388
	4 – Nov 2024	30	30
	5 – Dec 2024	42	47
	7 – Feb 2025	5	6
	8 – Mar 2025	24	26
	9 – Apr 2025	1	1
	10 – May 2025	1	4
Maximum		*212*	*388*
Mallard	1 – Aug 2024	2	2
	2 – Sept 2024	6	6
	3 – Oct 2024	6	6
	5 – Dec 2024	2	2
	7 – Feb 2025	20	23
	8 – Mar 2025	*	*
Maximum		*20*	*23*
Snipe	3 – Oct 2024	1	1
	5 – Dec 2024	62	62
	6 – Jan 2025	75	83
	7 – Feb 2025	16	21
	8 – Mar 2025	49	49
Maximum		*75*	*83*
Teal	3 – Oct 2024	9	9
	5 – Dec 2024	*	*
	6 – Jan 2025	17	17
	7 – Feb 2025	*	*
Maximum		*17*	*17*
Wigeon	5 – Dec 2024	*	*
	6 – Jan 2025	20	20
Maximum		20	20
Woodcock	3 – Oct 2024	5	5
	4 – Nov 2024	1	2
	5 – Dec 2024	2	8
	6 – Jan 2025	2	6
	7 – Feb 2025	4	18
	8 – Mar 2025	2	4
Maximum		*5*	*18*
Moorhen	1 – Aug 2024	1	2
	9 – Apr 2025	1	1
Maximum		*1*	*2*
Curlew	9 – Apr 2025	1	1
	10 – May 2025	1	1

Species	Survey number	Peak count	Total count
Maximum		*1*	*1*

Wider survey area

Year 1

3.2.12 During the year 1 nocturnal surveys a total of 13 target species were recorded using the wider survey area, including four that are a main component species of the Lower Derwent Valley SPA and Ramsar site and eight that are a main component species of the Humber Estuary SPA and Ramsar site. Target species recorded within the wider survey area are listed in **Table 3.7**.

3.2.13 In addition to species listed below, the following records where numbers of birds were unable to be attributed to species level were recorded:

- Survey 1 – Field 269 – Mixed flock of 300 snipe, lapwing, mallard, wigeon and teal
- Survey 2 – Field 364 – Large number of mallard and small number of teal heard calling but not seen
- Survey 3 – Field 364 – Teal heard calling but not seen

3.2.14 The above records are indicated with an asterisk (*) in Table 3.7 below.

3.2.15 The following secondary species were recorded using the wider survey area: barn owl, Canada goose, Egyptian goose, grey partridge, little owl, tawny owl, red-legged partridge and short eared owl.

3.2.16 Additional species observed flying over the wider survey area comprised barn owl and tawny owl.

Table 3.7: Year 1 nocturnal survey results – target species recorded within the wider survey area

Species	Survey number	Peak count	Total count
Curlew	4 – Feb 2024	1	1
	5 – Mar 2024	3	6
	6 – Apr 2024	2	2
Maximum		*3*	*6*
Coot	4 – Feb 2024	1	1
Maximum		*1*	*1*
Greenshank	2 – Dec 2023	78	78
Maximum		78	78
Grey heron	5 – Mar 2024	1	1
Maximum		1	1
Greylag goose	1 – Nov 2023	2	2
	2 – Dec 2023	49	68
	3 – Jan 2024	92	118
	4 – Feb 2024	40	40
	5 – Mar 2024	6	8
	6 – Apr 2024	37	55
Maximum		92	118
Lapwing	1 – Nov 2023	160	160

Species	Survey number	Peak count	Total count
	2 – Dec 2023	120	167
	3 – Jan 2024	48	91
	5 – Mar 2024	5	8
Maximum		*160*	*167*
Mallard	1 – Nov 2023	89	109
	2 – Dec 2023	117	121
	3 – Jan 2024	17	17
	4 – Feb 2024	2	8
	5 – Mar 2024	4	6
	6 – Apr 2024	9	13
Maximum		*117*	*121*
Moorhen	3 – Jan 2024	1	1
Maximum		*1*	*1*
Shelduck	4 – Feb 2024	2	2
	6 – Apr 2024	4	6
Maximum		*4*	*6*
Snipe	1 – Nov 2023	*	*
	3 – Jan 2024	1	1
Maximum		*1*	*1*
Teal	1 – Nov 2023	*	*
	2 – Dec 2023	30	36
	3 – Jan 2024	11	19
	4 – Feb 2024	95	164
Maximum		*95*	*164*
Wigeon	1 – Nov 2023	*	*
	4 – Feb 2024	74	134
Maximum		*74*	*134*
Woodcock	2 – Dec 2023	1	2
	3 – Jan 2024	11	13
	4 – Feb 2024	3	13
	5 – Mar 2024	2	2
Maximum		*11*	*13*

Year 2

3.2.17 The year 2 nocturnal surveys recorded a total of 12 target species within the wider survey area, including four that are a main component species of the Lower Derwent Valley SPA and Ramsar site and eight that are a main component species of the Humber Estuary SPA and Ramsar site. Target species recorded within the wider survey area are listed in **Table 3.8**.

3.2.18 In addition to species listed below, the following records where numbers of birds were unable to be attributed to species level were recorded:

- Survey 2 – Field 249 – Unknown number of mallard heard but not seen
- Survey 5 – field 336 – Unknown number of mallard and teal heard but not seen
- Survey 6 – Field 364 – Unknown number of wigeon heard but not seen

- Survey 7 – Field 359 – Unknown number of lapwing heard but not seen
- Survey 8 – Field 194 – Unknown number of mallard heard but not seen

3.2.19 The above records are indicated with an asterisk (*) in Table 3.8 below.

3.2.20 The following secondary species were recorded using the wider survey area: barn owl, Canada goose, Egyptian goose, grey partridge, little owl and tawny owl.

3.2.21 Additional species observed flying over the wider survey area comprised barn owl and little owl.

Table 3.8: Year 2 nocturnal survey results – target species recorded within the wider survey area

Species	Survey Number	Peak Count	Total Count
Greylag goose	1 – Aug 2024	92	92
	2 – Sept 2024	190	190
	3 – Oct 2024	34	34
	5 – Dec 2024	2	2
	7 – Feb 2025	43	71
	8 – Mar 2025	51	94
	9 – Apr 2025	20	20
Maximum		*190*	*190*
Lapwing	3 – Oct 2024	90	90
	4 – Nov 2023	42	59
	5 – Dec 2024	72	149
	6 – Jan 2025	97	246
	7 – Feb 2025	4	8
	9 – Apr 2025	1	2
Maximum		*97*	*246*
Mallard	1 – Aug 2024	16	16
	2 – Sept 2024	4	4
	3 – Oct 2024	50	59
	4 – Nov 2023	2	2
	5 – Dec 2024	6	8
	6 – Jan 2025	9	13
	7 – Feb 2025	2	4
	8 – Mar 2025	46	49
	9 – Apr 2025	39	39
	10 – May 2025	8	8
Pink-footed goose	2 – Sept 2024	50	50
Maximum		*50*	*59*
Snipe	8 – Mar 2025	16	16
	9 – Apr 2025	2	2
Maximum		*16*	*16*
Teal	2 – Sept 2024	6	6
	5 – Dec 2024	*	*
	8 – Mar 2025	7	14

Species	Survey Number	Peak Count	Total Count
Maximum		*7*	*14*
Wigeon	5 – Dec 2024	37	37
	6 – Jan 2025	*	*
Maximum		*37*	*37*
Woodcock	3 – Oct 2024	2	5
	4 – Nov 2023	2	7
	5 – Dec 2024	1	5
	6 – Jan 2025	2	7
	7 – Feb 2025	2	4
	8 – Mar 2025	2	6
	9 – Apr 2025	1	1
Maximum		*2*	*7*
Moorhen	2 – Sept 2024	1	1
	3 – Oct 2024	2	2
	5 – Dec 2024	2	2
	10 – May 2025	2	2
Maximum		*2*	*2*
Oystercatcher	7 – Feb 2025	2	2
		2	*2*
Curlew	9 – Apr 2025	1	1
	10 – May 2025	1	1
Maximum		*1*	*1*
Grey heron	8 – Mar 2025	1	1
	10 – May 2025	1	1
Maximum		*1*	*1*

3.3 Vantage point surveys

Year 1

3.3.1 Observations of target species were typically of species flying over the survey area (56 of 65 observations). Birds observed landing within the survey area included lapwing (between three and 190 birds on four occasions), pink-footed goose (204 birds on one occasion) and greylag goose (one bird on one occasion). Year 1 vantage point survey results are summarised in **Table 3.9**.

Table 3.9: Year 1 vantage point survey results – Target Species

Vantage point	Month	Species	In flight (F) or grounded (G)	Number birds
1	October	Red kite	F	1
	October	Red kite	F	1
	November	Mute swan	F	2
	November	Lapwing	F	19
	December	Red kite	F	1
	January	Lapwing	F/G	89
	January	Pink-footed goose	F	204
	January	Pink-footed goose	F/G	204
	February	Curlew	F	1
	February	Lapwing	F	2
	February	Lapwing	F	13
	February	Greylag goose	F	2
	March	Grey heron	F	1
	April	Shelduck	F	3
2	October	Pink-footed goose	F	30
	October	lapwing	F	80
	October	Pink-footed goose	F	80
	October	Pink-footed goose	F	135
	November	Golden plover	F	78
	November	Lapwing	F	70
	November	Lapwing	F	34
	January	Golden plover	F	60
	January	Lapwing	F/G	190
	January	Lapwing	F/G	4
	January	Lapwing	F	2
	January	Lapwing	F	1
	January	Lapwing	F	2
	January	Golden plover	F	45
	January	Red kite	F	1
	January	Lapwing	F/G	3
	January	Red kite	F	1

Vantage point	Month	Species	In flight (F) or grounded (G)	Number birds
	February	Lapwing	F	72
	February	Lapwing	F	430
	February	Greylag goose	F	2
	March	Lapwing	F	6
	April	Greylag goose	F	2
	April	Grey heron	F	1
	April	Red kite	F	1
3	October	Red kite	F	1
	October	Red kite	F	1
	November	Lapwing	F	54
	November	Lapwing	F	54
	November	Lapwing	F	21
	November	Pink-footed goose	F	32
	November	Red kite	F	2
	December	Pink-footed Goose	F	58
	January	Greylag goose	F	84
	January	Lapwing	F	22
	January	Lapwing	F	22
	January	Lapwing	F	22
	January	Greylag goose	F	7
	January	Greylag goose	F	22
	February	Pink-footed goose	F	300
	March	Peregrine	F	1
	April	Marsh harrier	F	1
	April	Greylag goose	F/G	1
4	October	Snipe	F	1
	October	Jack snipe	F	1
	October	Pink-footed goose	F	127
	February	Greylag goose	F	2
	April	Grey heron	F	1

Year 2

3.3.2 Observations of target species were typically of species flying over the survey area (60 of 73 observations). Birds observed landed within the survey area included curlew (one to two birds), golden plover (three birds), greylag goose (one to 42 birds) and lapwing (four to 162 birds). Year 2 vantage point survey results are summarised in **Table 3.10**.

Table 3.10: **Year 2 vantage point survey results – Target Species**

Vantage point	Month	Species	In flight (F) or grounded (G)	Number birds
1	September	Grey heron	F	1
		Hobby	F	1
	January	Greylag goose	F	42
		Lapwing	F	225
	February	Golden plover	F/G	3
		Greylag goose	F/G	42
		Lapwing	F	2
			F/G	443
	March	Curlew	F	3
		Lapwing	F	9
	April	Curlew	F	1
	May	Hobby	F	2
2	September	Red kite	F	1
	October	Greylag goose	F	391
		Lapwing	F	65
	December	Greylag goose	F	21
		Lapwing	F	46
		Red kite	F	8
	January	Greylag goose	F	2
		Lapwing	F	28
		Red Kite	F	1
	February	Greylag goose	F	12
		Lapwing	F	190
		Red kite	F	2
	March	Curlew	F/G	1
		Lapwing	F/G	4
		Red kite	F	2
	April	Curlew	F	2
		Red kite	F	1
	May	Lapwing	G/F	4
		Red kite	F	1
3	August	Merlin	F	1
	October	Lapwing	F	12
		Red kite	F	1
	March	Red kite	F	3
		Teal	F	6
	April	Shelduck	F	1
4	September	Pink-footed goose	F	47
	October	Grey heron	F	1
	January	Greylag goose	F	6
		Greylag goose	F/G	1

Vantage point	Month	Species	In flight (F) or grounded (G)	Number birds
	February	Greylag goose	F	2
	March	Curlew	F/G	4
		Whooper swan	F	33

3.4 Targeted whimbrel surveys

3.4.1 A total of six visits were made to fields 451 to 453 which are known to be used by whimbrel. Visits found whimbrel present on four of the six visits, with a peak count of 17 birds.

3.4.2 Fields 451 to 453 comprise cattle grazed grassland. The number of whimbrel recorded, as detailed within **Table 3.11**, represents the number of whimbrel recorded across all surveyed fields (451-453).

Table 3.11: Summary of targetted whimbrel surveys

Date of survey	Whimbrel recorded
25/04/2025	10
28/04/2025	0
30/04/2025	7
01/05/2025	5
02/05/2025	17
03/05/2025	0

Figures

Solar PV Development Area

Land Parcel

- A
- B
- C
- D
- E

N

Figure 1: Land Parcels

Project Name: Mylen Leah Solar Farm

Drawn By: GD avianecology	Checked By: MS Statkraft
Page centre: X: 474995 Y: 441158	Revision no. R1
Date: 03/03/2026	

0 0.5 1 km

1:23000 on A3

Solar PV Development Area

600m Buffer

Surveyed fields related to changes in the Land Parcels

Full Survey From October 2023

Additional Fields Added January 2024

Additional Fields Added September 2024

No Access Areas

12.g Statkraft Field Numbers

41 Field Number (Avian Ecology)

N

Figure 2: Non-breeding Bird Survey Plan

Project Name: Mylen Leah Solar Farm

Drawn By: GD avian ecology	Checked By: MS Statkraft
Page centre: X: 474995 Y: 441158	Revision no. R1
Date: 03/03/2026	

0 0.5 1 km

1:30000 on A3

Solar PV Development Area

600m Buffer

12.g Statkraft Field Numbers

41 Field Number (Avian Ecology)

N

0 0.5 1 km

1:30000 on A3

Figure 3: Field Numbers

Project Name: Mylen Leah Solar Farm

Drawn By: GD	Checked By: MS	
avian ecology	Statkraft	
Page centre: X: 474995 Y: 441158	Revision no. R1	Date: 03/03/2026

Solar PV Development Area

Vantage Point (VP)

- VP1 (SE7294641378)
- VP2 (SE7523842497)
- VP3 (SE7660040749)
- VP4 (SE7693038485)

Viewshed 1

Viewshed 2

Viewshed 3

Viewshed 4

N

0 0.5 1 km

1:30000 on A3

Figure 4: 2024 Vantage Point Locations and Viewsheds

Project Name: Mylen Leah Solar Farm

Drawn By: GD	Checked By: MS	
avian ecology	Statkraft	
Page centre: X: 476222 Y: 440656	Revision no. R1	Date: 03/03/2026

Solar PV Development Area

41 Whimbrel Survey Area - Field Number

N

Figure 5: Whimbrel Survey Area

Project Name: Mylen Leah Solar Farm

Drawn By: GD	Checked By: MS
avian ecology	Statkraft

Page centre:	Revision no.	Date:
X: 475593 Y: 441158	R1	03/03/2026

0 0.5 1 km

1:30000 on A3

Annex A: Bird species summary

Table A.1 provides a list of bird species recorded during the non-breeding bird surveys. Both common and scientific names are presented along with a summary of each species conservation status using the following abbreviations:

- Ann 1 - European Birds Directive Annex I species.
- Sch1 - Schedule 1 of the Wildlife & Countryside Act 1981 (as amended).
- BoCC - Birds of Conservation Concern as listed by leading bird conservation organisations in the UK, including the RSPB and BTO. Red and Amber categories are given (Stanbury et al., 2021).
- Sec41 - species listed as rare and most threatened on the NERC Act (2006).

Table A.1: Summary of bird species

Common name	Scientific name	Conservation status
Canada goose	*Branta canadensis*	
Greylag goose	*Anser anser*	Amber
Pink-footed goose	*Anser brachyrhynchus*	Amber
Mute swan	*Cygnus olor*	Green
Egyptian goose	*Alopochen aegyptiaca*	
Shelduck	*Tadorna tadorna*	Amber
Garganey	*Spatula querquedula*	Amber; Sch1.1
Wigeon	*Mareca penelope*	Amber
Mallard	*Anas platyrhynchos*	Amber
Teal	*Anas crecca*	Amber
Goosander	*Mergus merganser*	Green
Grey partridge	*Perdix perdix*	Red; Sec41
Red-legged partridge	*Alectoris rufa*	
Moorhen	*Gallinula chloropus*	Amber
Coot	*Fulica atra*	Green
Oystercatcher	*Haematopus ostralegus*	NT; Amber
Lapwing	*Vanellus vanellus*	NT; Red; Sec41
Golden plover	*Pluvialis apricaria*	Green; Ann1
Whimbrel	*Numenius phaeopus*	Red; Sch1.1
Curlew	*Numenius arquata*	NT; Red; Sec41
Dunlin	*Calidris alpina*	Red
Woodcock	*Scolopax rusticola*	Red
Jack snipe	*Lymnocryptes minimus*	Green
Snipe	*Gallinago gallinago*	Amber
Greenshank	*Tringa nebularia*	Amber; Sch1.1
Black-headed gull	*Chroicocephalus ridibundus*	Amber
Common gull	*Larus canus*	Amber
Herring gull	*Larus argentatus*	Red; Sec41
Yellow-legged gull	*Larus michahellis*	Amber
Lesser black-backed gull	*Larus fuscus*	Amber
Grey heron	*Ardea cinerea*	Green

Common name	Scientific name	Conservation status
Little egret	*Egretta garzetta*	Green; Ann1
Sparrowhawk	*Accipiter nisus*	Amber
Marsh harrier	*Circus aeruginosus*	Amber; Sch1.1; Ann1
Red kite	*Milvus milvus*	NT; Green; Sch1.1 & 1A; Ann1
Buzzard	*Buteo buteo*	Green
Barn owl	*Tyto alba*	Green; Sch1.1
Little owl	*Athene noctua*	
Short-eared owl	*Asio flammeus*	Amber; Ann1
Tawny owl	*Strix aluco*	Amber
Kestrel	*Falco tinnunculus*	Amber
Peregrine	*Falco peregrinus*	Green; Sch1.1; Ann1
Raven	*Corvus corax*	Green
Skylark	*Alauda arvensis*	Red; Sec41
Starling	*Sturnus vulgaris*	Red; Sec41
Song thrush	*Turdus philomelos*	Amber; Sec41
Redwing	*Turdus iliacus*	NT; Amber; Sch1.1
Blackbird	*Turdus merula*	Green
Fieldfare	*Turdus pilaris*	Red; Sch1.1
Pied wagtail	*Motacilla alba yarellii*	Amber
Meadow pipit	*Anthus pratensis*	NT; Amber
Chaffinch	*Fringilla coelebs*	Green
Linnet	*Linaria cannabina*	Red; Sec41
Corn bunting	*Emberiza calandra*	Red; Sec41
Yellowhammer	*Emberiza citrinella*	Red; Sec41
Reed bunting	*Emberiza schoeniclus*	Amber; Sec41

Annex B: Field numbers & Statkraft field numbers

Field numbers referenced in this report and associated Figures differ to the Statkraft field numbers. This is because the surveys commenced prior to the creation of Statkraft field numbers, and due to the wider survey area extending further than the Statkraft field numbers. **Table B.1** provides a list of the field numbers used during the surveys and their associated Statkraft field numbers, where relevant. It should be noted that the survey field numbers do not all directly correlate with Statkraft field numbers and data are most accurately represented within the field numbers which they were collected against, and as detailed within this report.

Table B.1: Field Numbers used during surveys and Statkraft field numbers

Field numbers	Statkraft field numbers
3	3.e
-	3.h
7	2.d
12	2.a
13	2.b
14	2.c
107	10.d
108	8.b
109	8.a
110	10.c
306	10.a/10.b
106	9.c
105	9.d
339	10.e
104	1.c
345	18.j
348	18.i
349	18.g/18.h
112	18.o
113	18.n
114	18.m
115	18.l
116	18.k
-	33.a
296	9.a
102	9.b
101	1.b
100	14.a
286	14.b
99	14.c
103	14.d
98	14.e
97	14.f
96	14.g
95	14.l

Field numbers	Statkraft field numbers
91	14.k
92	14.j
93	14.i
94	14.h
111	1.a
-	26.a
89	7.a
88	7.b
370	7.h
90	7.d
-	20.a
87	4.c
86	4.h
84	4.d
85	4.e
83	4.f
82	4.b
81	4.g
365	7.c
357	18.c
358	18.d/18.f
-	18.e
80	18.p/11.e
79	18.q/11.f
47/48	5.c
-	5.b
-	27.a
49	5.a
372	7.i/7.j
77	7.e/7.g
265/266	15.e
264	15.d
-	25.a
66	12.d/12.e
75	13.d
76	13.b
73	13.a
74	13.c
68	12.b
69	12.a
70	12.j
67	12.c
71	13.f
72	13.e
65	12.h

Field numbers	Statkraft field numbers
64	12.g
63	12.f
50	13.g
51	13.h
62	12.k
218	13.zm
60	13.m
59/55	13.l
52	13.i
53	13.j
56	13.zl
57/58	13.zk
54	13.k/13.n/13.ze
42	13.zf/13.zi
43	13.zj
41	13.zh
40	13.zg
39	13.t/13.zd
61	13.o/13.p
205	13.s/13.zq/13.r
206	13.q
202	13.v
38	13.u
37	13.x/13.w
36/187	13.y
35	13.z
453	15.a
452	15.b
451	15.c

Annex C: Main component species

This Annex presents main component species as defined by Natural England guidance Annex B1 and Annex B for the Lower Derwent Valley SPA and Humber Estuary SPA, respectively.

The tables below show the main component species of the SPAs, which species and the latest five year means as obtained from the latest (2023/24) British Trust for Ornithology Wetland Bird Survey data.

Table C.1: Main component species of Lower Derwent Valley SPA

British Trust for Ornithology code	Species	British Trust for Ornithology Wetland bird survey data 5 year mean
BH	Black-headed gull	21,480
BS	Bewick's swan	1
CM	Common gull	7,820
GA	Gadwall	350
GJ	Greylag goose	2,355
GP	Golden plover	2,420
L.	Lapwing	6,191
PO	Pochard	61
PT	Pintail	577
RU	Ruff	55
SV	Shoveler	305
T.	Teal	6,932
WM	Whimbrel	9
WN	Wigeon	11,372
WS	Whooper swan	164

Table C.2 Main Component Species of Humber Estuary SPA

British Trust for Ornithology code	Species	British Trust for Ornithology wetland bird survey data 5 year mean
AN	Crane	5
AV	Avocet	2,199
BA	Bar-tailed godwit	1,986
BH	Black-headed gull	19,299
BI	Bittern	3
BG	Brent goose	3,344
BW	Black-tailed godwit	6,836
CS	Common sandpiper	64
CU	Curlew	2,473
DN	Dunlin	22,346
ET	Little egret	226
GA	Gadwall	334
GE	Green sandpiper	19

British Trust for Ornithology code	Species	British Trust for Ornithology wetland bird survey data 5 year mean
GJ	Greylag goose	2,285
GP	Golden plover	21,623
GN	Goldeneye	399
GK	Greenshank	63
GV	Grey plover	2,673
HH	Hen harrier	N/A
KN	Knot	20,411
L.	Lapwing	11,859
MA	Mallard	1,459
MH	Marsh harrier	N/A
OC	Oystercatcher	7,218
PG	Pink-footed goose	27,329
PO	Pochard	66
PT	Pintail	217
RK	Redshank	2,668
RP	Ringed plover	1,508
RU	Ruff	60
SS	Sanderling	812
SP	Scaup	2
SU	Shelduck	11,398
SV	Shoveler	351
T.	Teal	9,994
TT	Turnstone	276
WG	White-fronted goose	27
WM	Whimbrel	38
WN	Wigeon	6,452

Annex D: Summary of survey effort and survey details

Table D.1: Key to weather descriptions

Wind speed		*Wind direction*	*Rain*		*Cloud cover*		*Cloud height*	
Calm	0	16 point compass	None	0	In eighths		<150m	0
Light air	1	e.g.,	Drizzle/Mist	1	e.g.	3/8	150-500m	1
Light breeze	2	N (North)	Light showers	2			>500m	2
Gentle breeze	3	NNE	Heavy showers	3				
Mod. breeze	4	NE	Heavy rain	4				
Fresh breeze	5	ENE						
Strong breeze	6	E						
Mod. gale	7	Etc	*Visibility*		*Snow*		*Frost*	
Fresh gale	8		Poor	0	None	0	None	0
Strong gale	9		< 1km	1	On site	1	Ground	1
Whole gale	10		>1km	2	High ground	2	All day	2
Storm	11							

Tables D.2 – D.7 present the survey effort and weather conditions recorded during the year 1 and year 2 non-breeding bird surveys within the survey area. In instances where the weather conditions are considered to be sub-optimal, table rows are shown highlighted with red text.

Table D.2: Walkover survey effort - year 1

Number	*Date*	*Surveyor*	*Wind speed*	*Wind direction*	*Rain*	*Cloud cover*	*Cloud height*	*Visibility*	*Frost*	*Snow*
1	*03/10/2023*	*GT*	*5*	*W*	*0*	*2/8*	*2*	*2*	*0*	*0*
1	*10/10/2023*	*GT*	*2*	*SW*	*1*	*8/8*	*2*	*2*	*0*	*0*
1	*11/10/2023*	*GT*	*4*	*W*	*0*	*5/8*	*2*	*2*	*0*	*0*
1	*13/10/2023*	*GT*	*4*	*NW*	*3*	*8/8*	*1*	*2*	*0*	*0*
2	*10/11/2023*	*GT*	*4*	*W*	*0*	*2/8*	*2*	*2*	*0*	*0*
2	12/11/2023	GT	2	SE	0	3/8	2	2	1	0

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
2	13/11/2023	GT	5	S	0	6/8	2	2	1	0
2	15/11/2023	GT	5	S	0	5/8	2	2	0	0
3	04/12/2023	GT	2	NE	3	8/8	2	2	0	0
3	05/12/2023	GT	2	NE	3	8/8	2	2	1	0
3	06/12/2023	GT	0	N/A	0	0/8	N/A	2	1	0
3	07/12/2023	GT	4	SE	3	8/8	2	2	0	0
4	19/01/2024	GT	3	SW	0	3/8	2	2	1	0
4	21/01/2024	GT	5	S	0	2/8	2	2	0	0
4	23/01/2024	GT	5	SW	3	8/8	2	2	0	0
4	24/01/2024	GT	4	W	0	8/8	2	2	0	0
5	14/02/2024	GT	3	SW	0	8/8	2	2	0	0
5	15/02/2024	GT	1	S	0	8/8	2	2	0	0
5	16/02/2024	GT	3	W	3	5/8	2	2	0	0
5	17/02/2024	GT	1	S	0	5/8	2	2	0	0
6	09/03/2024	GT	2	E	0	8/8	2	2	0	0
6	10/03/2024	GT	4	E	4	8/8	2	2	0	0
6	11/03/2024	GT	4	NE	1	8/8	2	2	0	0
6	13/03/2024	GT	4	SW	0	3/8	2	2	0	0
7	09/04/2024	GT	2	S	0	3/8	2	2	0	0
7	10/04/2024	GT	5	S	0	8/8	2	2	0	0
7	11/04/2024	GT	3	W	0	5/8	2	2	0	0
7	13/04/2024	GT	5	W	0	6/8	2	2	0	0

Table D.3: Nocturnal survey effort - year 1

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
1	20/11/2023	GT	1	NW	1	8/8	2	2	0	0
1	21/11/2023	GT	5	NE	0	7/8	2	2	0	0
1	22/11/2023	GT	3	SW	0	6/8	2	2	0	0

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
1	23/11/2023	GT	5	W	0	6/8	2	2	0	0
2	22/12/2023	GT	6	NW	0	6/8	2	2	0	0
2	27/12/2023	GT	5	SE	2	8/8	2	2	0	0
2	28/12/2023	GT	5	W	2	8/8	2	2	0	0
2	29/12/2023	GT	5	W	0	4/8	2	2	0	0
3	10/01/2024	GT	3	E	0	6/8	2	2	0	0
3	11/01/2024	GT	2	N	1	8/8	2	2	0	0
3	12/01/2024	GT	1	NW	0	8/8	2	2	0	0
3	13/01/2024	GT	4	NW	0	4/8	2	2	0	0
4	14/02/2024	GT	2	SW	0	5/8	2	2	0	0
4	15/02/2024	GT	2	S	1	7/8	2	2	0	0
4	16/02/2024	GT	1	W	1	8/8	2	2	0	0
4	17/02/2024	GT	0	S	0	6/8	2	2	0	0
5	22/03/2024	GT	4	W	0	8/8	2	2	0	0
5	23/03/2024	GT	5	W	0	5/8	2	2	0	0
5	24/03/2024	GT	4	NW	0	2/8	2	2	0	0
5	27/03/2024	GT	3	E	0	3/8	2	2	0	0
6	11/04/2024	GT	3	W	0	3/8	2	2	0	0
6	12/04/2024	GT	2	W	0	3/8/	2	2	0	0
6	13/04/2024	GT	4	W	0	6/8	2	2	0	0
6	14/04/2024	GT	4	W	0	3/8	2	2	0	0

Table D.4 and Table D.7 present multiple values for weather conditions recorded during the survey, as weather conditions were recorded hourly during vantage point surveys.

Table D.4: Vantage point (VP) survey effort - year 1

Date	VP	Surveyor	Start time	End time	VP hours	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
17/10/2023	1	TI	13:40	16:40	3	5/5/6	ESE/ESE/ESE	0/0/0	6/7/5	1/1/1	2/2/2	0/0/0	0/0/0
17/10/2023	2	TI	10:30	13:30	3	3/4/5	ESE/ESE/ESE	0/0/0	5/4/4	1/1/1	2/2/2	0/0/0	0/0/0
17/10/2023	3	GT	13:40	16:40	3	5/5/5	E/E/E	0/0/0	2/2/2	2/2/2	2/2/2	0/0/0	0/0/0
17/10/2023	4	GT	10:20	13:20	3	2/4/4	E/E/E	0/0/0	6/2/3	2/2/2	2/2/2	0/0/0	0/0/0
22/11/2023	1	GT	11:55	14:55	3	5/5/5	W/W/W	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
22/11/2023	2	GT	08:40	11:40	3	4/4/4	W/W/W	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
21/11/2023	3	GT	11:20	14:20	3	3/3/3	N/N/N	0/0/0	6/5/6	2/2/2	2/2/2	0/0/0	0/0/0
20/11/2023	4	GT	13:20	16:20	3	2/2/2	NW/NW/NW	0/2/0	8/8/8	2/2/2	2/1/2	0/0/0	0/0/0
28/12/2023	1	GT	12:00	15:00	3	5/5/5	SW/SW/SW	2/0/0	8/4/5	2/2/2	2/2/2	0/0/0	0/0/0
22/12/2023	2	GT	13:05	16:05	3	5/5/5	WNW/WNW/WNW	0/0/0	6/6/4	2/2/2	2/2/2	0/0/0	0/0/0
19/12/2023	3	GT	08:30	11:30	3	2/2/2	NW/NW/NW	1/0/0	8/8/7	1/2/2	2/2/2	0/0/0	0/0/0
17/12/2023	4	GT	11:35	14:35	3	3/3/2	SW/SW/SW	0/0/0	4/3/2	2/2/2	2/2/2	0/0/0	0/0/0/
12/01/2024	1	GT	11:40	14:40	3	1/1/1	NW/NW/NW	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
15/01/2024	2	GT	13:15	16:15	3	4/4/4	NW/NW/NW	0/0/0	0/0/0	0/0/0	2/2/2	0/0/0	0/0/0
08/01/2024	3	GT	13:15	16:15	3	3/3/3	NE/NE/NE	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0

Date	VP	Surveyor	Start time	End time	VP hours	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
03/01/2024	4	GT	12:30	15:30	3	1/1/1	W/W/W	0/0/0	7/6/7	2/2/2	2/2/2	0/0/0	0/0/0
20/02/2024	1	GT	09:00	12:00	3	4/3/3	SW/SW/SW	0/0/0	4/4/3	2/2/2	2/2/2	0/0/0	0/0/0
16/02/2024	2	GT	13:30	16:30	3	2/2/2	W/W/W	0/0/0	7/7/7	2/2/2	2/2/2	0/0/0	0/0/0
18/02/2024	3	GT	14:05	17:05	3	2/2/2	W/W/W	0/0/0	3/3/3	2/2/2	2/2/2	0/0/0	0/0/0
10/02/2024	4	GT	08:15	11:15	3	1/1/1	SE/SE/SE	0/0/0	2/*/0	2/*/0	1/0/1	0/0/0	0/0/0
27/03/2024	1	GT	15:40	18:40	3	4/4/3	SE/SE/SE	0/0/0	4/6/8	2/2/2	2/2/2	0/0/0	0/0/0
24/03/2024	2	GT	15:30	18:30	3	4/2/1	NW/NW/NW	0/0/0	2/4/2	2/2/2	2/2/2	0/0/0	0/0/0
04/03/2024	3	GT	13:00	16:00	3	3/4/4	E/E/E	0/0/0	7/7/8	2/2/2	2/2/2	0/0/0	0/0/0
10/03/2024	4	GT	12:00	15:00	3	4/4/4	E/E/E	4/4/4	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
13/04/2024	1	GT	15:45	18:45	3	5/5/5	W/W/W	0/0/4	6/6/8	2/2/2	2/2/2	0/0/0	0/0/0
30/04/2024	2	GT	08:10	11:10	3	4/5/5	SE/SE/SE	0/0/0	2/2/2	2/2/2	2/2/0	0/0/0	0/0/0
07/04/2024	3	GT	13:30	16:30	3	5/5/5	S/S/S	3/0/2	7/8/7	2/2/2	2/2/2	0/0/0	0/0/0
10/04/2024	4	GT	17:10	20:10	3	5/5/4	S/S/S	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0

*fog present reducing surveyor visibility, as such cloud cover and height could not be accurately determined.

Table D.5: Walkover survey effort - year 2

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
1	04/08/2024	GT	3	SW	0	3/8	2	2	0	0
1	05/08/2024	GT	3	SW	0	5/8	2	2	0	0
1	07/08/2024	GT	5	SW	0	3/8	2	2	0	0
1	08/08/2024	GT	6	SW	0	7/8	2	2	0	0
2	18/09/2024	GT	3	NE	0	1/8	2	2	0	0
2	20/09/2024	GT	5	NE	0	6/8	2	2	0	0
2	22/09/2024	GT	1	NE	0	8/8	2	1	0	0
2	23/09/2024	GT	3	E	0	5/8	2	2	0	0
3	06/10/2024	GT	4	SE	0	8/8	2	2	0	0
3	07/10/2024	GT	3	SW	0	2/8	2	2	0	0
3	09/10/2024	GT	5	N	0	8/8	2	2	0	0
3	10/10/2024	GT	5	N	0	6/8	2	2	0	0
4	08/11/2024	GT	3	SE	0	8/8	2	2	0	0
4	09/11/2024	GT	1	E	1	6/8	2	2	0	0
4	10/11/2024	GT	4	E	0	5/8	2	2	0	0
4	11/11/2024	GT	5	NE	0	6/8	2	2	0	0
5	06/12/2024	GT	3	W	0	0/8	-	2	0	0
5	07/12/2024	GT	6	NW	4	8/8	2	2	0	0
5	08/12/2024	GT	8	NW	4	8/8	2	2	0	0
5	09/12/2024	GT	5	NE	3	8/8	2	2	0	0
6	05/01/2025	GT	4	E	2	8/8	2	2	0	0
6	06/01/2025	GT	6	NW	2	8/8	2	2	0	0
6	08/01/2025	GT	0	-	0	2/8	2	2	0	0
6	10/01/2025	GT	1	NW	0	1/8	2	2	2	0
7	11/02/2025	GT	4	E	2	8/8	2	2	0	0
7	12/02/2025	GT	3	NE	0	8/8	2	2	0	0
7	13/02/2025	GT	1	E	0	8/8	2	2	0	0
8	04/03/2025	GT	3	W	0	4/8	2	2	0	0

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
8	05/03/2025	GT	3	W	0	2/8	2	2	0	0
8	08/03/2025	GT	2	S	0	3/8	2	2	0	0
8	09/03/2025	GT	4	W	0	5/8	2	2	0	0
9	25/04/2025	GT	2	E	0	7/8	2	2	0	0
9	28/04/2025	GT	1	SW	0	0/8	2	2	0	0
9	29/04/2025	GT	1	SE	0	1/8	2	2	0	0
9	30/04/2025	GT	2	SW	0	1/8	2	2	0	0
10	01/05/2025	GT	2	SW	0	2/8	2	2	0	0
10	02/05/2025	GT	3	NE	0	1/8	2	2	0	0
10	06/05/2025	GT	4	NE	0	5/8	2	2	0	0
10	08/05/2025	GT	3	NE	0	4/8	2	2	0	0

Table D.6: Nocturnal survey effort - year 2

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
1	28/08/2024	GT	3	SE	0	5/8	2	2	0	0
1	29/08/2024	GT	3	SW	0	4/8	2	2	0	0
1	30/08/2024	GT	2	NE	0	4/8	2	2	0	0
2	25/09/2024	GT	2	NW	2	8/8	2	2	0	0
2	28/09/2024	GT	3	NW	0	3/8	2	2	0	0
2	29/09/2024	GT	5	S	0	8/8	2	2	0	0
3	13/10/2024	GT	1	E	0	8/8	2	2	0	0
3	16/10/2024	GT	1	SE	0	8/8	2	2	0	0
3	17/10/2024	GT	3	SW	0	2/8	2	2	0	0
3	18/10/2024	GT	3	SW	0	1/	2	2	0	0
4	19/11/2024	GT	5	N	0	8/8	2	2	0	0
4	20/11/2024	GT	5	N	1	8/8	2	2	0	1
4	27/11/2024	GT	3	S	0	3/8	2	2	1	0

Number	Date	Surveyor	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
4	28/11/2024	GT	3	S	0	3/8	2	2	0	0
5	11/12/2024	GT	0	N/A	1	8/8	1	1	0	0
5	16/12/2024	GT	2	NW	0	5/8	2	2	0	0
5	17/12/2024	GT	5	SW	0	3/8	2	2	0	0
5	18/12/2024	GT	6	SW	0	7/8	2	2	0	0
6	19/01/2025	GT	1	SW	0	6/8	2	2	1	0
6	21/01/2025	GT	0	N/A	0	7/8	2	2	1	0
6	27/01/2025	GT	6	SW	0	8/8	2	2	0	0
6	28/01/2025	GT	5	N	1	8/8	2	2	0	0
7	19/02/2025	GT	3	SE	0	3/8	2	2	0	0
7	20/02/2025	GT	5	SW	0	8/8	2	2	0	0
7	22/02/2025	GT	4	SW	0	5/8	2	2	0	0
7	23/02/2025	GT	5	S	0	8/8	2	2	0	0
8	19/03/2025	GT	3	SE	0	3/8	2	2	0	0
8	20/03/2025	GT	1	W	0	1/8	2	2	0	0
8	21/03/2025	GT	4	SE	0	6/8	2	2	0	0
8	23/03/2025	GT	3	NE	0	3/8	2	2	0	0
9	08/04/2025	GT	2	SE	0	2/8	2	2	0	0
9	09/04/2025	GT	2	N	0	8/8	2	2	0	0
9	10/04/2025	GT	1	SW	0	0/8	2	2	0	0
9	11/04/2025	GT	2	NW	0	1/8	2	2	0	0
10	02/05/2025	GT	0	-	0	1/8	2	2	0	0
10	03/05/2025	GT	4	N	0	6/8	2	2	0	0
10	04/05/2025	GT	5	N	0	5/8	2	2	0	0

Table D.7: Vantage Point Survey Effort Year 2

Date	VP	Surveyor	Start time	End time	VP hours	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
03/09/2024	1	GT	13:00	16:00	3	2/2/2	W/W/W	0/0/0	6/4/6	2/2/2	2/2/2	0/0/0	0/0/0
06/09/2024	2	GT	06:40	09:40	3	3/3/2	NE/NE/NE	0/0/0	1/1/0	2/2/2	2/2/2	0/0/0	0/0/0
30/08/2024	3	GT	17:00	20:00	3	2/2/1	NE/NE/NE	0/0/0	0/0/0	N/A	2/2/2	0/0/0	0/0/0
31/08/2024	4	GT	13:10	16:10	3	2/2/2	E/E/E	0/0/0	0/0/0	N/A	2/2/2	0/0/0	0/0/0
16/09/2024	1	GT	07:45	10:45	3	4/4/4	SW/SW/SW	0/0/2	7/8/8	2/2/2	2/2/2	0/0/0	0/0/0
17/09/2024	2	GT	13:00	16:00	3	1/1/1/	E/E/E	0/0/0	0/0/0	N/A	2/2/2	0/0/0	0/0/0
16/09/2024	3	GT	11:05	13:05	3	4/4/4	SW/SW/SW	2/3/4	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
18/09/2024	4	GT	06:20	09:20	3	0/1/1	N/A/E/E	0/0/0	8/6/8	2/2/2	2/2/2	0/0/0	0/0/0
20/10/2024	1	GT	14:00	17:00	3	4/5/6	SSE/SSW/SSW	0/0/0	7/2/5	2/2/2	2/2/2	0/0/0	0/0/0
06/10/2024	2	GT	15:45	18:45	3	1/1/1	SE/SE/SE	0/0/0	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
09/10/2024	3	GT	07:00	10:00	3	1/1/1	N/N/N	2/2/2	8/7/6	2/2/2	2/2/2	0/0/0	0/0/0
17/10/2024	4	GT	12:55	15:55	3	1/1/1	SW/SW/SW	0/0/0	3/2/3	2/2/2	2/2/2	0/0/0	0/0/0
25/11/2024	1	GT	08:20	11:20	3	4/5/5	SW/SW/SW	0/0/0	0/0/0	N/A	2/2/2	0/0/0	0/0/0
27/11/2024	2	GT	11:15	14:15	3	2/2/2	N/N/N	2/2/0	8/6/4	1/2/2	2/2/2	0/0/0	0/0/0
18/11/2024	3	GT	12:10	15:10	3	2/2/2	N/N/N	0/0/0	4/3/3	2/2/2	2/2/2	0/0/0	0/0/0

Date	VP	Surveyor	Start time	End time	VP hours	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
27/11/2024	4	GT	07:50	10:50	3	2/2/2	N/N/N	3/3/3	8/8/8	1/1/1	2/2/2	0/0/0	0/0/0
29/12/2024	1	GT	11:15	14:15	3	3/3/4	W/W/W	0/0/0	6/8/8	2/2/2	2/2/2	0/0/0	0/0/0
23/12/2024	2	GT	11:15	08:21	3	3/3/3	W/W/W	0/0/0	3/7/6	2/2/2	2/2/2	0/0/0	0/0/0
17/12/2024	3	GT	10:15	13:15	3	3/3/4	S/S/S	0/0/0	8/7/8	1/1/1	2/2/2	0/0/0	0/0/0
23/12/2024	4	GT	11:45	14:45	3	3/3/4	W/W/W	0/0/0	8/8/6	2/2/2	2/2/2	0/0/0	0/0/0
31/01/2025	1	GT	08:00	11:00	3	1/1/1	E/E/E	0/0/0	8/8/8	0/1/1	1/2/2	0/0/0	0/0/0
27/01/2025	2	GT	08:30	11:30	3	4/5/5	SSW/SSW/SSW	0/0/0	0/5/3	-/2/2	2/2/2	0/0/0	0/0/0
17/01/2025	3	GT	13:00	16:00	3	1/1/1	SE/SE/SE	0/0/0	8/8/8	2/1/1	2/2/2	0/0/0	0/0/0
21/01/2025	4	GT	13:30	16:30	3	2/2/2	S/S/S	0/0/1	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
19/02/2025	1	GT	07:45	10:45	3	3/3/3	SE/SE/SE	0/0/0	4/8/8	2/2/2	2/2/2	0/0/0	0/0/0
18/02/2025	2	GT	07:20	10:20	3	2/2/3	SE/SE/SE	0/0/0	6/5/5	2/2/0	2/2/2	1/0/0	0/0/0
20/02/2025	3	GT	14:30	17:30	3	6/6/4	S/S/SW	3/0/0	8/4/2	2/2/2	2/2/2	0/0/0	0/0/0
05/02/2025	4	GT	14:00	17:00	3	4/2/1	W/W/W	0/0/0	4/2/2	2/2/2	2/2/2	0/0/0	0/0/0
05/03/2025	1	GT	15:15	18:15	3	3/1/1	SW/SW/SW	0/0/0	1/1/1	2/2/2	2/2/2	0/0/0	0/0/0
20/03/2025	2	GT	11:45	14:45	3	1/1/1	SE/SE/SE	0/0/0	0/0/0	0/0/0	2/2/2	0/0/0	0/0/0

Date	VP	Surveyor	Start time	End time	VP hours	Wind speed	Wind direction	Rain	Cloud cover	Cloud height	Visibility	Frost	Snow
18/03/2025	3	GT	09:15	12:15	3	2/3/3	E/E/E	0/0/0	1/0/0	2/2/2	2/2/2	0/0/0	0/0/0
07/03/2025	4	GT	08:45	11:45	3	0/1/1	-/SSE/SSE	0/0/0	7/6/4	2/2/2	2/2/2	0/0/0	0/0/0
19/04/2025	1	GT	12:30	15:30	3	3/3/3	E/E/E	0/0/0	5/5/5	2/2/2	2/2/2	0/0/0	0/0/0
13/04/2025	2	GT	11:20	14:20	3	3/3/3	W/W/W	0/0/0	6/7/6	2/2/2	2/2/2	0/0/0	0/0/0
04/04/2025	3	GT	08:15	11:15	3	2/2/3	NE/NE/NE	0/0/0	0/0/0	N/A	2/2/2	0/0/0	0/0/0
-	4	-	-	-	-	-	-	-	-	-	-	-	-
25/05/2025	1	GT	11:30	14:30	3	5/5/5	W/W/W	3/3/0	8/8/6	2/2/2	2/2/2	0/0/0	0/0/0
25/05/2025	2	GT	17:30	20:30	3	4/4/3	W/W/W	2/0/4	8/8/8	2/2/2	2/2/2	0/0/0	0/0/0
02/05/2025	3	GT	17:45	20:45	3	1/1/1	SE/SE/SE	0/0/0	2/2/2	2/2/2	2/2/2	0/0/0	0/0/0
-	4	-	-	-	-	-	-	-	-	-	-	-	-

Annex E: Walkover survey raw data – numbers of birds recorded and field references

Table E.1: Numbers and locations of target bird species recorded during year 1 walkover surveys – solar PV development area

Species	Field number	Survey number						
		1	*2*	*3*	*4*	*5*	*6*	*7*
Black-headed gull	37				39			
	39				12			
	54		2					
	73		274			53		
	74					68	98	
	75			211				
	76					6		
	95				2			
	97				2			
	102				32			
	104				22			
	206				10			
	306				6			
Canada goose	206						2	
	370							2
Common gull	37				11			
	54		2					
	61	23	6					
	73		21			1		
	74					222	54	
	75			5				
	76					78		
	102				68			
	104				88			

Species	Field number	Survey number						
		1	*2*	*3*	*4*	*5*	*6*	*7*
Curlew	39							2
	61							1
	73					7		
	95							2
	102						2	2
Egyptian goose	76						2	
	202							2
	265							1
Golden plover	75			285				
	106						630	
Goosander	206		2					
Grey heron	37				1			
	73		1					
	202					1		
Greylag goose	61					16	2	
	71							2
	73							4
	206						6	
	265							2
	370						2	
	372				6			
Herring gull	37				4			
	39				16			
	102				1			
	206				33			
Lapwing	39				6			
	61							2
	71				68			

Species	Field number	Survey number						
		1	*2*	*3*	*4*	*5*	*6*	*7*
	73					181		
	74				3			
	75			66				
	76				28			
	102				15			
	111						2	
	206				34			2
	339						2	
Little egret	202							1
Mallard	70	153		4				
	73					2		
	90						2	
	97							2
	106					2		
	202				6			
	206						5	
	370		20	14				
Oystercatcher	42						2	1
	370							3
Pink-footed goose	102				117			
	104				38			
	265					439	457	
Shelduck	97							4
	103							2
	265						2	
Snipe	265				1			

Table E.2: Numbers and locations of target bird species recorded during year 1 walkover surveys – wider survey area

Species	*Field number*	*Survey number*						
		1	*2*	*3*	*4*	*5*	*6*	*7*
Black-headed gull	6					394		
	27	93						
	164			122				
	166			3				
	173		22				1	
	232				4	24		
	235	3						
	256		205		74		130	
	259		61	217	110			
	260					46	7	
	267			64				
	269		103	1	38	149		
	283					267		
	300			86				
	309					1		
	316			34			5	
	319			20				
	320		49					
	326						5	
	334					630		
	359		61					
	360		20					
	378			43	1			
	379			81				
	401	284						
Canada goose	275	31						
	371					9	12	12

Species	Field number	Survey number						
		1	2	3	4	5	6	7
	378							4
Common gull	6					63		
	27	98						
	173		2					
	232					1		
	235	16						
	256		3		1		8	
	267			3				
	269			3	2	2		
	283					21		
	300			9				
	316			1			37	
	319			1				
	320		6					
	326						5	
	331						4	
	334					64		
	359		312					
	360		205					
	378			11	7			
	379			18				
	389	1						
	401	642						
	422		38					
	425		11					
Curlew	256						6	
	269					2		
	359						2	

Species	Field number	Survey number						
		1	2	3	4	5	6	7
	378							2
	381						2	
Dunlin	256				5			
	259			2				
	269			67				
Egyptian goose	238				2			
	256							2
	371		2					
Garganey	275	2						
Golden plover	256				382			
	259			4				
	267	82						
	269			385				
Greylag goose	31							1
	163						2	
	245					4		
	256							12
	261					13		
	275	1						
	276				7			
	329						2	
	359						2	
	364					9		
	367					4		
	369						2	
	371		1					2
	379					2		
Herring Gull	25	8						

Species	Field number	Survey number						
		1	2	3	4	5	6	7
	27	1						
	173						1	
	359		19					
	360		2					
	389		2					
	398		2					
	401	4						
	422		2				1	
	425		2					
Lapwing	166			12				2
	167						4	6
	168						2	
	173		17	5				
	256				262			
	258				5			
	259		13	86	87			
	261				27			
	267	182		29				
	269		3	11		326		
	300			7				
	319			43				
	320			89				
	378				29			
	379				58			
	380				3			
	381				17			
	385				28			
Lesser black-backed gull	25	31						

Species	Field number	Survey number						
		1	2	3	4	5	6	7
	27	6						
	359		2					
	389	5						
	401	113						
Little egret	329						1	
	378							2
Mallard	154						2	
	186						4	
	315				2			
	364		39			6		
	371		16	17			6	4
	378			10				
	379					14		
	409			3				
	424							1
	430							1
Mute swan	315					2		
Oystercatcher	371						2	
Pink-footed goose	261					142		
	319				181			
	364					1		
Shelduck	256							2
	333					2		
	378							1
	379					2		
Teal	186						13	
	333						2	
Yellow-legged gull	401	2						

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
Black-headed gull	42		2								
	61							29	29		
	73		2								
	93				7						
	94	6	8		9						
	97	29	11								
	102		8								
	202					4					
	206						2				
Common Gull	42		27								
	61						1	1			
	73		6								
	94		19								
	97		64								
	102		67								
Coot	206							2			
Curlew	61								2		
	105									1	
	265										2
	266									1	
Egyptian goose	66								2		
	83		2								
	265		1		4				4		
	372		2		2	2			2		
Garganey	95						1				

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
Golden plover	69				7						
	70				3						
	102						81				
Grey Heron	370	1									
	372								1		
Greylag goose	61								5		
	73		245								
	77								2		
	86								2		
	265		101		168				17	2	
	266								4		
Herring gull	372					4					
Lapwing	39						17				
	61				17						
	69				84						
	70				4		88				
	71			4	6						
	79								5		
	90										2
	92						28				
	93				129						
	94				117		26				
	102						61				
	345									2	
Lesser black-backed gull	61		2								
	73		1								
	94		1								
Mallard	37							2			

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	61								3		
	64								50		
	202								2		
	205				63	4					
	206								2		
	266					15					
Oystercatcher	266									1	
Pink-footed goose	265								4		
Ruff	102						2				
Whimbrel	452									7	
Yellow-legged gull	42		1								

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
Black-headed gull	27							67			
	29			179							
	32						112				
	154		6		301	696					
	163							79			
	166							49			
	173			5							
	209						117				
	210				66						
	211				99						
	212							17			
	214					30	41				
	232		26								

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	237					2					
	245		1								
	267						5				
	268					141					
	270					8					
	284					63					
	285				28	19		9			
	295				2	5					
	300				4	3					
	302	2									
	309			39	3			3			
	319				12	33	9				
	320				28			58			
	375					21					
	385				14						
	398							1			
	399							2			
Canada goose	371	37	61	6		4		10		2	19
Common gull	29			188							
	32						109				
	154		38		12			1			
	161								1		
	166							10			
	173			8							
	209						12				
	212							4			
	214						17				
	232		29								

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	245		5								
	261							16			
	270					2					
	285				12	4					
	295					37					
	300				2	19					
	301		43								
	302	7				8					
	309			16	2			1			
	319					8	10				
	320				2			2			
	334		9								
	359							110			
	360			19							
	362						2				
	375					166					
	377		1								
	380				14						
	398							87			
	399							117			
	409							83			
Common sandpiper	371		1								
Common tern	371									1	
Curlew	6								1		
	268										2
	290									1	
	300									2	
	367								5		

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	378								2	2	
	379									1	
Dunlin	285						3				
Egyptian goose	232						2				
	274					9					
	276				6						
	364						3				
	371	7									
Golden plover	195						23				
	267						2				
	309				4						
	319						16				
Great black-backed gull	154				1						
	209						4				
	214					4	2				
Grey heron	334					1					
	362			2							
Greylag goose	78								2		
	210				140						
	214							22			
	249					0					
	255								2		
	274			4		1					
	278				26						
	364					1					
	371	68	2	22				63			14
	381								2		
	430							1	8		

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	463								8	6	
	493								4	7	
Herring gull	31					1					
	154					1					
	209						311				
	210				47						
	211				103						
	212							12			
	214						48				
	259							1			
	301		2								
	302		5								
Lapwing	154				4						
	195						163				
	235				67						
	256		3								
	261				8						
	267						246				
	270				88						
	285						26				
	290									1	
	295				28						
	300				17						
	302		4								
	309			103	10		30				
	317				6						
	319				43		46				
	359				28						

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
	360								4		
	362						73				
	363						62				
	367								1		
	379				8						
	403				6						
Lesser black-backed gull	29			8							
	154		3								
	173			2							
	245		5								
	334		2								
Mallard	131								2		
	249		0			0					
	252								16		
	364					0					
	369					1					
	371	23	37	11		6		6			8
	373								2		
	378								2		
	430								6		
	492								6		
Moorhen	371			2							
Oystercatcher	371									1	4
	378								1		
Pink-footed goose	267							547			
Shelduck	373								1		
	378							2			
Snipe	402				2						

Species	Field number	Survey number									
		1	2	3	4	5	6	7	8	9	10
Tufted duck	371										1
Whimbrel	492									10	
	543										5
Whooper swan	246							2			

[1] Annex B: Humber Estuary Special Protection Area: non-breeding waterbird assemblage
[2] Annex B1: Lower Derwent Valley Special Protection Area: non-breeding waterbird assemblage (Version 1.1, June 2023)
[3] Discretionary Advice: Mylen Leah Solar Farm, Land outside of Melbourne, East Riding of Yorkshire. Ref: UDS A015118
[4] Wildlife and Countryside Act 1981. Available online: Wildlife and Countryside Act 1981
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