TOBIN

Bord na Móna Derrygreenagh Wind and Solar

Breeding Season 2024 Bird Surveys: Summary Report 2024

Bord na Móna

BUILT ON KNOWLEDGE

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1. BACKGROUND

This report summarises the results of bird surveys undertaken by TOBIN at the proposed Derrygreenagh Wind and Solar Farm site during the Breeding Season 2024, for the survey period of April to September.

2. SUMMARY OF LOCAL BIRD ACTIVITY DURING THE BREEDING SEASON 2024

2.1 VANTAGE POINT SURVEYS

The Vantage Point (VP) surveys were carried in accordance with the methodology set out by the Scottish Natural Heritage (SNH) guidelines (SNH, 2017). Eleven (11) VPs across the Derrygreenagh Wind and Solar Farm site were set at fixed locations, which were strategically positioned to provide a maximum viewshed of the survey area over the survey period, the locations of which can be seen in Figure 2-1 and Figure 2-2. The viewshed of a given VP extended to a distance of no greater than 2km and included an arc of no greater than 180 degrees, as per SNH (2017), which encompassed the study area for the VP surveys.

The 11 VPs were surveyed for 6 hours each on each month, summing up to a total of 468 hours for the survey period of April to September 2024 (Table 2-1).

Vantage point	Apr	May	Jun	Jul	Aug	Sep	Total hours
1	6	6	6	6	6	6	**36**
2	6	6	6	6	6	6	**36**
3	6	6	6	6	6	6	**36**
4	6	6	6	6	6	6	**36**
5	6	6	6	6	6	6	**36**
6	6	6	6	6	6	6	**36**
7	6	6	6	6	6	6	**36**
8	6	6	6	6	6	6	**36**
9	6	6	6	6	6	6	**36**
10	6	6	6	6	6	6	**36**
11	6	6	6	6	6	6	**36**
12	6	6	6	6	6	6	**36**
13	6	6	6	6	6	6	**36**
Total hours	**78**	**78**	**78**	**78**	**78**	**78**	**468**

The VP surveys registered observations of 24 species flying within VP viewsheds over this survey period (Table 2-2). Black-headed Gull (*Larus ridibundus*) was largely the most abundant species observed flying during the VP surveys, with 131 individuals sighted. Kestrel (*Falco tinnunculus*) and Buzzard (*Buteo buteo*) were the most frequently recorded raptor species with 126 and 111 sightings respectively. Other species that were recorded often and require highlighting were Lesser Black-backed Gull (*Larus fuscus*) and Mallard (*Anas platyrhynchos*).

Table 2-2: Summary of Vantage Point Surveys Records of Target Species in Flight Between April to September 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Black-headed Gull	Amber	-	-	5	48	68	10	-	**131**
Kestrel	Red	-	4	5	8	40	34	35	**126**
Buzzard	Green	-	10	16	29	19	17	20	**111**
Lesser Black-backed Gull	Amber	-	6	8	4	3	82	1	**104**
Mallard	Amber	-	5	31	-	25	26	-	**87**
Lapwing	Red	-	2	18	2	2		24	**48**
Golden Plover	Red	Annex I	32	-	-	-	-	-	**32**
Snipe	Red	-	1	13	11	2	-	2	**29**
Grey Heron	Green	-	8	7	4	-	4	3	**26**
Sparrowhawk	Green	-	2	-	3	5	4	7	**21**
Mute Swan	Amber	-	3	7	6	2		1	**19**
Peregrine	Green	Annex I	2	1	-	2	1	-	**6**
Tufted Duck	Amber	-	6	-	-	-	-	-	**6**
Cormorant	Amber	-	4	-	-	1	-	1	**6**
Little Egret	Green	Annex I	-	-	-	3	3	-	**6**
Common Gull	Amber	-	4	-	-	-	-	-	**4**
Woodcock	Red	-	4	-	-	-	-	-	**4**
Little Grebe	Green	-	2	2	-	-	-	-	**4**
Common Sandpiper	Amber	-	-	-	1	-	2	-	**3**
Meadow Pipit	Red	-	-	-	-	-	3	-	**3**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Swift	Red	-	-	-	-	2	-	-	**2**
Merlin	Amber	Annex I	-	-	-	2	-	-	**2**
Crane	Green	Annex I	-	1	-	-	-	-	**1**
Curlew	Red	-	-	-	1	-	-	-	**1**
Ringed Plover	Amber	-	-	1	-	-	-	-	**1**

Table 2-3 discriminates the observations at each of the VPs. The highest diversity of flying target species was recorded at VP6, with 14 species, whereas the highest abundance of flying birds was recorded at VP8, with 140 sightings of seven different species. Other VP locations of relevant flying activity abundance were VP12 (130 individuals), VP9 (93 individuals), and VP7 (72 individuals).

Table 2-3: Summary of Breeding Birds Observation Per Vantage Point (Target Species Flying Observation –April to September 2024)

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
VP1									
Kestrel	Red	-	-	-	1	6	5	1	**13**
Buzzard	Green	-	1	2	1	1	-	1	**6**
Mallard	Amber	-	2	2	-	-	-	-	**4**
Sparrowhawk	Green	-	-	-	-	-	-	1	**1**
VP2									
Buzzard	Green	-	-	3	4	3	4	1	**15**
Kestrel	Red	-	1	1	-	2	2	1	**7**
Meadow Pipit	Red	-	-	-	-	-	3	-	**3**
Mallard	Amber	-	2	-	-	-	-	-	**2**
Swift	Red	-	-	-	-	1	-	-	**1**
Sparrowhawk	Green	-	-	-	-	-	1	-	**1**
VP3									
Buzzard	Green	-	1	1	1	1	1	-	**5**
Kestrel	Red	-	-	1	1	1	1	1	**5**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Grey Heron	Green	-	-	-	1	-	1	1	**3**
Woodcock	Red	-	1	-	-	-	-	-	**1**
VP4									
Buzzard	Green	-	5	1	5	2	1	2	**16**
Kestrel	Red	-	-	1	2	5	2	2	**12**
Mute Swan	Amber	-	-	5	-	-	-	-	**5**
Mallard	Amber	-	1	3	-	-	-	-	**4**
Grey Heron	Green	-	2	1	-	-	-	-	**3**
Swift	Red	-	-	-	-	1	-	-	**1**
Woodcock	Red	-	1	-	-	-	-	-	**1**
Lapwing	Red	-	-	1	-	-	-	-	**1**
Sparrowhawk	Green	-	-	-	-	-	1	-	**1**
VP5									
Buzzard	Green	-	-	1	1	1	1	3	**7**
Kestrel	Red	-	1	1	2	1	1	-	**6**
Mallard	Amber	-	-	2	-	-	-	-	**2**
Lesser Black-backed Gull	Amber	-	-	-	-	1	-	-	**1**
Peregrine	Green	Annex I	-	-	-	1	-	-	**1**
Lapwing	Red	-	-	1	-	-	-	-	**1**
VP6									
Lesser Black-backed Gull	Amber	-	-	-	-	2	37	-	**39**
Golden Plover	Red	Annex I	32	-	-	-	-	-	**32**
Kestrel	Red	-	-	-	-	5	2	8	**15**
Buzzard	Green	-	-	-	5	1	2	1	**9**
Cormorant	Amber	-	4	-	-	-	-	1	**5**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Lapwing	Red	-	-	1	2	2	-	-	**5**
Mute Swan	Amber	-	-	-	3	-	-	-	**3**
Common Sandpiper	Amber	-	-	-	1	-	2	-	**3**
Little Grebe	Green	-	-	2	-	-	-	-	**2**
Sparrowhawk	Green	-	-	-	-	1	-	1	**2**
Grey Heron	Green	-	-	-	-	-	1	1	**2**
Ringed Plover	Amber	-	-	1	-	-	-	-	**1**
Woodcock	Red	-	1	-	-	-	-	-	**1**
Black-headed Gull	Amber	-	-	-	1	-	-	-	**1**
VP7									
Buzzard	Green	-	2	2	4	4	2	5	**19**
Lesser Black-backed Gull	Amber	-	-	1	-	-	14	-	**15**
Black-headed Gull	Amber	-	-	-	-	15	-	-	**15**
Kestrel	Red	-	-	-	1	4	3	4	**12**
Sparrowhawk	Green	-	-	-	1	-	1	-	**2**
Snipe	Red	-	-	-	-	-	-	2	**2**
Peregrine	Green	Annex I	2	-	-	-	-	-	**2**
Lapwing	Red	-	-	2	-	-	-	-	**2**
Cormorant	Amber	-	-	-	-	1	-	-	**1**
Woodcock	Red	-	1	-	-	-	-	-	**1**
Grey Heron	Green	-	-	-	1	-	-	-	**1**
VP8									
Black-headed Gull	Amber	-	-	2	6	41	3	-	**52**
Lapwing	Red	-	-	3	-	-	-	24	**27**
Buzzard	Green	-	-	5	3	4	1	2	**15**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Kestrel	Red	-	-	-	-	6	7	2	**15**
Snipe	Red	-	-	-	11	-	-	-	**11**
Grey Heron	Green	-	2	3	-	-	1	-	**6**
Sparrowhawk	Green	-	-	-	-	4	-	-	**4**
Mute Swan	Amber	-	1	-	-	2	-	-	**3**
Little Egret	Green	Annex I	-	-	-	-	3	-	**3**
Peregrine	Green	Annex I	-	1	-	1	-	-	**2**
Little Grebe	Green	-	2	-	-	-	-	-	**2**
VP9									
Lesser Black-backed Gull	Amber	-	-	-	-	-	31	-	**31**
Mallard	Amber	-	-	-	-	3	21	-	**24**
Kestrel	Red	-	-	1	1	3	4	3	**12**
Black-headed Gull	Amber	-	-	1	2	5	-	-	**8**
Snipe	Red	-	-	5	-	-	-	-	**5**
Buzzard	Green	-	-	-	2	1	-	2	**5**
Grey Heron	Green	-	3	1	-	-	-	-	**4**
Mute Swan	Amber	-	2	-	-	-	-	-	**2**
Lapwing	Red	-	2	-	-	-	-	-	**2**
VP10									
Kestrel	Red	-	-	-	-	6	4	11	**21**
Black-headed Gull	Amber	-	-	-	3	1	5	-	**9**
Snipe	Red	-	-	6	-	2	-	-	**8**
Lapwing	Red	-	-	8	-	-	-	-	**8**
Buzzard	Green	-	1	-	2	-	-	3	**6**
Sparrowhawk	Green	-	1	-	-	-	-	4	**5**
Mallard	Amber	-	-	2	-	-	-	-	**2**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Grey Heron	Green	-	-	-	-	-	1	-	**1**
Peregrine	Green	Annex I	-	-	-	-	1	-	**1**
VP11									
Mallard	Amber	-	-	6	-	-	-	-	**6**
Buzzard	Green	-	-	-	1	-	3	-	**4**
Lesser Black-backed Gull	Amber	-	3	1	-	-	-	-	**4**
Snipe	Red	-	1	2	-	-	-	-	**3**
Black-headed Gull	Amber	-	-	2	-	-	-	-	**2**
Crane	Green	Annex I	-	1	-	-	-	-	**1**
Sparrowhawk	Green	-	-	-	-	-	1	-	**1**
Grey Heron	Green	-	-	-	-	-	-	1	**1**
Kestrel	Red	-	1	-	-	-	-	-	**1**
VP12									
Black-headed Gull	Amber	-	-	-	36	6	2	-	**44**
Mallard	Amber	-	-	11	-	21	5	-	**37**
Lesser Black-backed Gull	Amber	-	3	6	4	-	-	1	**14**
Tufted Duck	Amber	-	6	-	-	-	-	-	**6**
Mute Swan	Amber	-	-	2	3	-	-	1	**6**
Kestrel	Red	-	-	-	-	-	3	2	**5**
Buzzard	Green	-	-	1	-	1	2	-	**4**
Common Gull	Amber	-	4	-	-	-	-	-	**4**
Grey Heron	Green	-	-	1	2	-	-	-	**3**
Little Egret	Green	Annex I	-	-	-	3	-	-	**3**
Merlin	Amber	Annex I	-	-	-	2	-	-	**2**
Curlew	Red	-	-	-	1	-	-	-	**1**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Sparrowhawk	Green	-	-	-	-	-	-	1	**1**
VP13									
Mallard	Amber	-	-	5	-	1	-	-	**6**
Sparrowhawk	Green	-	1	-	2	-	-	-	**3**
Grey Heron	Green	-	1	1	-	-	-	-	**2**
Kestrel	Red	-	1	-	-	1	-	-	**2**
Lapwing	Red	-	-	2	-	-	-	-	**2**

During the VP surveys, 17 different species of birds were recorded not in flight (Table 2-4). Observations included a total of 506 individual birds swimming, roosting or foraging within VP viewsheds. These observations included large numbers of Mute Swan (*Cygnus olor*) – the most abundant species not in-flight during VP surveys at the Derrygreenagh Wind and Solar Farm between April and September 2024.

Additionally, four target bird species were observed exhibiting 'Confirmed' breeding behaviour during Vantage Point surveys. These were Mute Swan, Mallard, Buzzard, and Great Crested Grebe (*Podiceps cristatus*). All of these records came from VP's withing the Drumman Bog. In total, 71 confirmed breeding individuals of Mute Swan (including adults and cygnets) were observed at the Drumman quarry ponds, along with three individuals of Great Crested Grebe (two adults with one chick). Drumman quarry ponds are within the viewsheds of VP6 and VP12. Additionally, seven individuals (two adults and seven cygnets) of Mute Swan, and seven individuals of Mallard (female and six ducklings) were seen on the river within the VP4 viewshed. At least two Buzzard chicks were heard calling from the forestry within the VP7 viewshed.

Table 2-4: Summary of 2024 Breeding Birds Vantage Point Surveys (Target Species Non-flying Observations- April to September 2024)

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Mute Swan	Amber	-	40	12	219	55	23	24	**373**
Meadow Pipit	Red	-	12	3	9	14	3	3	**44**
Mallard	Amber	-	7	9	-	4	18	1	**39**
Great Crested Grebe	Amber	-	3	4	2	2	2	1	**14**
Snipe	Red	-	-	6	2	-	-	-	**8**
Moorhen	Green	-	-	2	-	-	4	-	**6**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Whooper Swan	Amber	Annex I	1	-	1	-	1	-	**3**
Buzzard	Green	-	-	-	1	2	-	-	**3**
Grey Heron	Green	-	-	-	-	1	1	-	**2**
Tufted Duck	Amber	-	-	2	-	-	-	-	**2**
Ringed Plover	Amber	-	-	-	1	1	-	-	**2**
Kingfisher	Amber	Annex I	-	-	-	-	-	2	**2**
Kestrel	Red	-	-	-	-	1	1	-	**2**
Water Rail	Green	-	-	-	-	-	2	-	**2**
Common Sandpiper	Amber	-	-	-	-	-	1	-	**1**
Little Grebe	Green	-	-	1	-	-	-	-	**1**
Peregrine	Green	Annex I	1	-	-	-	-	-	**1**
Swift	Red	-	-	-	1	-	-	-	**1**

The observations of non-flying birds while surveying VP6 were more diverse and more abundant than any other VP. The viewshed of this VP overlooks the Drumman quarry ponds, resulting in a high number of records of water birds, notably Mute Swan (Table 2-5).

Table 2-5: Summary of 2024 Breeding Birds Observations Per Vantage Point Surveys (Target Species Non-Flying Observation – April to September 2024)

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sept	Total
VP1									
Meadow Pipit	Red	-	2	-	3	6	-	3	**14**
Grey Heron	Green	-	-	-	-	1	-	-	**1**
VP2									
Meadow Pipit	Red	-	3	-	3	5	-	-	**11**
Swift	Red	-	-	-	1	-	-	-	**1**
VP3									
Meadow Pipit	Red	-	4	-	-	-	-	-	**4**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sept	Total
VP4									
Mallard	Amber	-	7	9	-	-	2	-	**18**
Mute Swan	Amber	-	-	-	7	-	7	-	**14**
Meadow Pipit	Red	-	1	-	-	-	3	-	**4**
Moorhen	Green	-	-	-	-	-	3	-	**3**
VP4									
Meadow Pipit	Red	-	2	3	3	3	-	-	**11**
Buzzard	Green	-	-	-	1	-	-	-	**1**
Kestrel	Red	-	-	-	-	1	-	-	**1**
VP6									
Mute Swan	Amber	-	39	10	210	45	10	24	**338**
Mallard	Amber	-	-	-	-	4	16	1	**21**
Great Crested Grebe	Amber	-	3	3	2	2	2	1	**13**
Moorhen	Green	-	-	2	-	-	1	-	**3**
Water Rail	Green	-	-	-	-	-	2	-	**2**
Ringed Plover	Amber	-	-	-	1	1	-	-	**2**
Kingfisher	Amber	Annex I	-	-	-	-	-	2	**2**
Grey Heron	Green	-	-	-	-	-	1	-	**1**
Common Sandpiper	Amber	-	-	-	-	-	1	-	**1**
Little Grebe	Green	-	-	1	-	-	-	-	**1**
VP7									
Buzzard	Green	-	-	-	-	2	-	-	2
Peregrine	Green	Annex I	1	-	-	-	-		1
VP8									
Snipe	Red	-	-	2	1	-	-	-	**3**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sept	Total
VP9									
Snipe	Red	-	-	3	-	-	-	-	**3**
VP10									
Snipe	Red	-	-	1	1	-	-	-	**2**
VP11									
Kestrel	Red	-	-	-	-	-	1	-	**1**
VP12									
Mute Swan	Amber	-	1	2	2	10	6	-	21
Whooper Swan	Amber	Annex I	1	-	1	-	1	-	3
Tufted Duck	Amber	-	-	2	-	-	-	-	2
Great Crested Grebe	Amber	-	-	1	-	-	-	-	1

7°20'0"W
7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
740000
735000
644000
649500
655000
Maxar, Microsoft



Legend

Derrygreenagh Wind and Solar -Proposed Developments Non-flight observations

- Swift
- Buzzard
- Grey Heron
- Redshank
- Golden Plover
- Moorhen
- Ringed Plover
- Mallard
- Reed Bunting
- Lesser Black-backed Gull
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Common Gull
- Lapwing
- Meadow Pipit
- Whooper Swan
- Great Crested Grebe
- Peregrine Falcon
- Tufted Duck

Flightlines

- Black-headed Gull
- Buzzard
- Common Gull
- Common Sandpiper
- Cormorant
- Crane
- Curlew
- Golden Plover
- Grey Heron
- Kestrel
- Lapwing
- Lesser Black-backed Gull
- Little Grebe
- Mallard
- Mute Swan
- Peregrine
- Ringed Plover
- Snipe
- Sparrowhawk
- Tufted Duck
- Woodcock

0 1 2
Kilometres

NOTES

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A	01/11/2024	First issue	S.P	J..M
Rev	Date	Description	By	Chkd.

Client:

Bord na Móna

Project:

Bord Na Mona - Derrygreenagh Wind and Solar

Title:

Figure 2.1
Vantage Points
April-June 2024 Observations

Scale @ A3: 1:50,000

Prepared by:	Checked by:	Date:
S.Pezzetta	J.Martins	November 2024

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Map Ref: 11458-023-Apr..Jun24-VP-TOB-A

Draft: A

7°20'0"W
7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
740000
735000
644000
649500
655000
Earthstar Geographics



Legend

Derrygreenagh Wind and Solar -Proposed Developments

Non-flight observations
- Swift
- Buzzard
- Grey Heron
- Moorhen
- Ringed Plover
- Mallard
- Kestrel
- Mute Swan
- Meadow Pipit
- Whooper Swan
- Great Crested Grebe
- Water Rail
- Common Sandpiper
- Kingfisher

Flightlines
- Black-headed Gull
- Buzzard
- Common Sandpiper
- Cormorant
- Grey Heron
- Kestrel
- Lapwing
- Lesser Black-backed Gull
- Mallard
- Mute Swan
- Peregrine
- Snipe
- Sparrowhawk
- Merlin
- Little Egret

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	01/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord Na Mona - Derrygreenagh Wind and Solar

Title: Figure 2.2 Vantage Points July-September 2024 Observations

Scale @ A3: 1:50,000

Prepared by:	Checked by:	Date:
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Map Ref: 11458-024-Jul..Sep24-VP-TOB-A

Draft: A

2.2 BREEDING WATERBIRDS SURVEY

The Breeding Waterbirds survey involves conducting monthly counts during the survey season in wetland habitat locations within a Zone of Influence (ZoI), encompassing the proposed development site and within a 2km buffer.

Counts at each wetland habitat site were conducted on the 'look-see' basis (Bibby *et al.* 2000), which involved scanning across the survey area and counting all the birds seen. Birds were recorded on a count form, along with relevant information, including numbers of waterbirds; the presence of marked birds (leg-ringed or neck-collared); and weather conditions.

A total of 2,331 observations of 22 species were recorded within the ZoI for Breeding Waterbirds Surveys between April and September 2024. Mute Swan and Mallard were the most abundant species recorded (Table 2-6). Species observations can be seen in Figure 2-3, and Figure 2-4.

Additionally, 10 target bird species were observed exhibiting 'Confirmed' breeding behaviour, with Mute Swan and Mallard being the most common. The majority of these records were concentrated at the Derryarkin and Drumman quarry ponds. The abundance of 'Confirmed' and 'Probable' sightings is listed below for the individual birds recorded for each target species (including adults, cygnets, ducklings, chicks),

Derryarkin Bog included 'Confirmed' breeding sightings of Mute Swan (31), Black-headed Gull (22), and Tufted Duck (*Aythya fuligula*) (8), and Lapwing (*Vanellus vanellus*) (1). The 'Confirmed' breeding sightings on Drumman Bog included Mute Swan (185), Mallard (53), Ringed Plover (*Charadrius hiaticula*) (20), Tufted Duck (18), Little Grebe (*Tachybaptus ruficollis*) (10), Great Crested Grebe (8), and Common Sandpiper (*Actitus hypoleucos*) (4). Little Grebe (6) and, Moorhen (*Gallinula chloropus*) (1) were 'Confirmed' breeding in North Ballybeg Bog. Additionally, 'Confirmed' breeding observations were sighted within 2km buffer zone south of Ballybeg bog included Lapwing (31), Mallard (13), Great Crested Grebe (5), and Moorhen (3). Species observations of 'Confirmed' breeding behaviour can be seen in Figure 2-5.

Moreover, 13 target bird species were identified as 'Probable' breeders, notably Lapwing (50), Mallard (45), and Little Grebe (45). The areas of concentration for these 'Probable' breeding sightings included the Derryarkin quarry ponds, wetlands in the southern part of Derryarkin Bog, Drumman quarry ponds, and wetlands located within the 2 km buffer zone south of Ballybeg Bog. Species observations of 'Confirmed' breeding behaviour can be seen in Figure 2-5.

Table 2-6: Summary of Breeding Waders Survey Recorded Between April to September 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Mute Swan	Amber	-	120	56	216	156	146	189	**883**
Mallard	Amber	-	22	28	84	73	317	47	**571**
Lapwing	Red	-	10	20	26	44	125	4	**229**
Black-headed Gull	Amber	-	-	39	5	89	14	-	**147**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Tufted Duck	Amber	-	36	6	29	16	22	22	**131**
Little Grebe	Green	-	9	13	16	13	8	10	**69**
Lesser Black-backed Gull	Amber	-	2	11	-	4	35	13	**65**
Ringed Plover	Amber	-	5	10	22	16	3	-	**56**
Snipe	Red	-	4	6	8	4	7	5	**34**
Grey Heron	Green	-	9	7	-	2	4	12	**34**
Great Crested Grebe	Amber	-	8	8	10	3	2	2	**33**
Teal	Amber	-	-	-	-	-		24	**24**
Little Egret	Green	Annex I	3	2	2	4	2	3	**16**
Moorhen	Green	-	-	4	2	1	4	3	**14**
Common Sandpiper	Amber	-	1	-	5	-	5	-	**11**
Cormorant	Amber	-	3	2	-	1	-	2	**8**
Coot	Amber	-	-	1	-	-	-	-	**1**
Cuckoo	Green	-	-	1	-	-	-	-	**1**
Crane	Green	Annex I	-	-	-	1	-	-	**1**
Grey Wagtail	Red	-	-	-	-	-	1	-	**1**
Jack Snipe	Green	-	1	-	-	-	-	-	**1**
Kingfisher	Amber	Annex I	-	1	-	-	-	-	**1**

2.3 BREEDING RAPTORS SURVEY

The Breeding Raptors survey involves conducting monthly counts during the survey season. Counts were conducted in wetland habitat locations within a Zone of Influence (ZoI), encompassing the proposed development site and within a 2km buffer.

Counts at each potential habitat site were conducted on the 'look-see' basis (Bibby *et al.*, 2000), which involved scanning across the survey area and counting all the birds seen. Birds were recorded on a count form, along with relevant information, including numbers of waterbirds; the presence of marked birds (leg-ringed or neck-collared); and weather conditions.

A total of 190 observations of four raptor species were recorded within the ZoI for Raptors Surveys between April and September 2024. The most frequently recorded species were the Buzzard and Kestrel, with 106 and 60 sightings, respectively (Table 2-7). Species observations can be seen in Figure 2-3, and Figure 2-4.

The abundance of 'Confirmed' and 'Probable' sightings is listed below for the individual birds recorded for each target species (adults and chicks).

Within the proposed windfarm site, only Ballybeg Bog included sightings of 'Confirmed' breeding of Buzzard (1). The remaining 'Confirmed' sightings came from withing the 2km buffer zone, with Kestrel (4) and Buzzard (2) records. Species observations of 'Confirmed' breeding behaviour can be seen in Figure 2-5.

Additionally, raptors sighted as 'probable' breeders included the Buzzard (16), Kestrel (8), and Sparrowhawk (*Accipiter nisus*) (4). There were no sightings suggesting breeding of Peregrine (*Falco peregrinus*), at the site in 2024. Species observations of 'Confirmed' breeding behaviour can be seen in Figure 2-6.

Table 2-7: Summary of Raptors Recorded Between April - September 2024 (Breeding Raptors Survey)

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Buzzard	Green	-	17	18	13	19	21	18	**106**
Kestrel	Red	-	6	9	8	11	12	14	**60**
Sparrowhawk	Green	-	2	2	2	3	6	5	**20**
Peregrine	Green	Annex I	-	1	1	-	2	0	**4**

7°20'0"W
7°13'50"W
7°7'40"W
53°26'30"N
53°23'0"N
53°19'30"N
742000
736000
730000
643000
649500
656000
Earthstar Geographics



Legend

Derrygreenagh Wind and Solar - Proposed Developments

Non-flight observations

- Buzzard
- Grey Heron
- Moorhen
- Ringed Plover
- Mallard
- Lesser Black-backed Gull
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Lapwing
- Great Crested Grebe
- Peregrine Falcon
- Tufted Duck
- Common Sandpiper
- Kingfisher
- Black-headed Gull
- Coot
- Cormorant
- Cuckoo
- Jack Snipe
- Little Egret
- Sparrowhawk

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	01/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord na Mona - Derrygreenagh Wind and Solar

Title:

Figure 2.3
Breeding Waders and Raptors Survey
April-June 2024 Observations

Scale @ A3:	1:60,000	
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S.Pezzetta	J.Martins	November 2024

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Map Ref: 11458-025-Apr..Jun24-WAD..R-TOB-A

Draft: A

7°20'0"W
7°13'50"W
7°7'40"W
53°26'30"N
53°23'0"N
53°19'30"N
742000
736000
730000
643000
649500
656000
Maxar, Microsoft



Legend

Derrygreenagh Wind and Solar - Proposed

Non-flight observations

- Buzzard
- Grey Heron
- Moorhen
- Ringed Plover
- Mallard
- Lesser Black-backed Gull
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Lapwing
- Great Crested Grebe
- Peregrine Falcon
- Tufted Duck
- Common Sandpiper
- Black-headed Gull
- Cormorant
- Little Egret
- Sparrowhawk
- Teal
- Crane
- Grey Wagtail

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	01/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord na Mona - Derrygreenagh Wind and Solar

Title: Figure 2.4 Breeding Waders and Raptors Survey July-September 2024 Observations

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7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
745000
740000
735000
730000
644000
649500
655000

Common Sandpiper
Mute Swan

Little Grebe
Mallard
Mute Swan
Tufted Duck

Little Grebe

Mallard
Mute Swan
Ringed Plover

Black-headed Gull
Mute Swan

Mallard
Mute Swan
Tufted Duck

Little Grebe
Mallard
Moorhen

Maxar, Microsoft



Legend

Energy Park - Proposed Developments

Non-flight observations

- Buzzard
- Moorhen
- Ringed Plover
- Mallard
- Kestrel
- Mute Swan
- Little Grebe
- Lapwing
- Great Crested Grebe
- Tufted Duck
- Common Sandpiper
- Black-headed Gull

0 1 2
Kilometres

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A	18/11/2024	First issue	S.P	J..M
Rev	Date	Description	By	Chkd.

Client:

Bord na Móna

Project:

Bord Na Mona - Energy Park

Title:

Figure 2.5
'Confirmed' Sightings of Breeding Waders and Raptors
April to September 2024 Observations

Scale @ A3:	1:60,000	
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7°20'0"W
7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
745000
740000
735000
730000
644000
649500
655000

Lapwing
Great

Mallard
Great Crested Grebe

Little Grebe
Tufted Duck

Great Crested
Grebe
Tufted Duck

Mallard
Tufted Duck

Black-headed Gull
Grey Heron
Lapwing
Little Grebe
Ringed Plover

Black-headed Gull
Great Crested Grebe
Little Grebe

Grey Heron
Moorhen
Snipe

Mallard
Moorhen
Snipe

Little Grebe
Mute Swan

Buzzard
Mallard
Snipe

Earthstar Geographics



Legend

- Energy Park - Proposed Developments

Non-flight observations

- Buzzard
- Grey Heron
- Moorhen
- Ringed Plover
- Mallard
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Lapwing
- Great Crested Grebe
- Tufted Duck
- Common Sandpiper
- Black-headed Gull
- Sparrowhawk
- Grey Wagtail

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	18/11/2024	First issue	S.P	J..M

Client:

Bord na Móna

Project:

Bord Na Mona - Energy Park

Title:

Figure 2.6
'Probable' Sightings of Breeding Waders and Raptors
April to September 2024 Observations

Scale @ A3: 1:60,000

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2.4 BREEDING BIRD TRANSECT SURVEY

Breeding Bird transect surveys were conducted to establish the distribution and abundance of birds within the proposed development site, and to allow the evaluation of the site's importance. The transect survey was adapted from CBS (2012), and involved 13 representative transects delineated across the Derrygreenagh Wind and Solar Farm site, the locations of which can be seen in Figure 2-7 and Figure 2-8. A total 1,180 observations of 25 species were recorded over the survey period (Table 2-8). Overall, Mallard, Mute Swan, Meadow Pipit (*Anthus pratensis*), Black-headed Gull were the most abundant species recorded.

A total of seven different target species were sighted expressing 'Confirmed' breeding behaviour within the boundary of the proposed site. The abundance of 'Confirmed' and 'Probable' sightings is listed below for the individual birds recorded for each target species (adults and chicks).

Druman Bog recorded the majority of 'Confirmed' breeding sightings. These were Mallard (46), Mute Swan (23), Tufted Duck (16), Little Grebe (8), Ringed Plover (3), and Kestrel (1). Derryarkin Bog recorded 'Confirmed' breeding sightings of Black-headed Gull (16), and Common Gull (2). Species observations of 'Confirmed' breeding behaviour can be seen in Figure 2-9.

Additionally, 12 target bird species identified as 'Probable' breeders during the transect surveys, notably Meadow Pipit (147), Black-headed gull (56), Lapwing (35), and Mallard (33). Species observations of 'Probable' breeding behaviour can be seen in Figure 2-10.

Table 2-8: Summary of breeding bird activity between April and September 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Mallard	Amber	-	7	62	18	130	111	13	**341**
Mute Swan	Amber	-	53	21	61	48	12	32	**227**
Meadow Pipit	Red	-	17	19	24	50	8	47	**165**
Black-headed Gull	Amber	-	2	29	49	25	2	-	**107**
Lapwing	Red	-	4	19	5	17	-	-	**45**
Tufted Duck	Amber	-	17	7	18	-	-	-	**42**
Buzzard	Green	-	7	-	6	11	12	5	**41**
Teal	Amber	-	-	-	-	-	-	35	**35**
Kestrel	Red	-	4	2	2	6	6	5	**25**
Snipe	Red	-	2	6	1	2	4	8	**23**
Ringed Plover	Amber	-	4	11	2	4	-	-	**21**
Grey Heron	Green	-	4	2	3	7	2	1	**19**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Little Grebe	Green	-	2	9	2	1	2	2	**18**
Common Gull	Amber	-	-	-	-	15	-	-	**15**
Sparrowhawk	Green	-	1	2	1	-	5	3	**12**
Lesser Black-backed Gull	Amber	-	-	-	-	-	10	-	**10**
Swift	Red	-	-	-	-	6	2	-	**8**
Peregrine	Green	Annex I	1	-	3	1	-	1	**6**
Moorhen	Green	-	1	2	2	-	1	-	**6**
Cormorant	Amber	-	5	-	-	-	-	-	**5**
Yellowhammer	Red	-	-	-	-	2	-	-	**2**
Great Crested Grebe	Amber	-	1	1	-	-	-	-	**2**
Redshank	Red	-	-	1	-	1	-	-	**2**
Little Egret	Green	Annex I	-	-	-	2	-	-	**2**
Common Sandpiper	Amber	-	-	-	-	1	-	-	**1**

Transect 8_2 recorded the highest diversity of the target bird species (20) and the highest abundance of individual target bird species (616). Large numbers of Mute Swan and Mallard were frequently observed at this location throughout the six months of surveys (Table 2-9).

Table 2-9: Distribution of Breeding Bird Records During Transect Surveys Between April to September 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
T1									
Meadow Pipit	Red	-	1	2	-	3	-	16	**22**
Mute Swan	Amber	-	2	2	2	2	2	2	**12**
Buzzard	Green	-	2	-	1	1	1	-	**5**
Mallard	Amber	-	-	-	-	-	3	-	**3**
Swift	Red	-	-	-	-	3	-	-	**3**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Kestrel	Red	-	1	-	1	-	-	1	3
Sparrowhawk	Green	-	-	-	-	1	-	-	1
Yellowhammer	Red	-	-	-	-	-	1	-	1
T2									
Meadow Pipit	Red	-	1	1	2	7	-	-	11
Buzzard	Green	-	-	-	-	4	3	1	8
Snipe	Red	-	-	1	-	-	2	2	5
Mallard	Amber	-	2	-	-	-	-	-	2
Mute Swan	Amber	-	2	-	-	-	-	-	2
Yellowhammer	Red	-	-	-	-	1	-	-	1
Kestrel	Red	-	1	-	-	-	-	-	1
T3									
Meadow Pipit	Red	-	1	3	-	11	-	9	24
Mallard	Amber	-	-	2	-	3	-	-	5
Buzzard	Green	-	2	-	2	-	-	-	4
Grey Heron	Green	-	-	1	-	1	1	1	4
Kestrel	Red	-	-	-	-	1	2	-	3
Sparrowhawk	Green	-	-	1	-	-	1	-	2
Mute Swan	Amber	-	2	-	-	-	-	-	2
T4									
Meadow Pipit	Red	-	1	2	3	4	4	-	14
Lapwing	Red	-	-	-	-	10	-	-	10
Buzzard	Green	-	-	-	1	1	1	-	3
Sparrowhawk	Green	-	-	1	-	-	-	-	1
T5									
Black-headed Gull	Amber	-	-	10	4	16	-	-	30

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Mallard	Amber	-	2	1	4	6	15	2	**30**
Tufted Duck	Amber	-	2	5	2	-	-	-	**9**
Little Grebe	Green	-	2	1	2	-	-	-	**5**
Meadow Pipit	Red	-	1	-	2	-	-	1	**4**
Snipe	Red	-	-	-	-	-	1	-	**1**
Sparrowhawk	Green	-	-	-	-	-	1	-	**1**
T6									
Meadow Pipit	Red	-	2	5	6	6	4	2	**25**
Mallard	Amber	-	-	2	2	-	-	2	**6**
Snipe	Red	-	-	1	1	1	-	1	**4**
Kestrel	Red	-	1	1	-	1	-	-	**3**
Lesser Black-backed Gull	Amber	-	-	-	-	-	1	-	**1**
T7									
Black-headed Gull	Amber	-	-	11	37	6	2	-	**56**
Common Gull	Amber	-	-	-	-	15	-	-	**15**
Grey Heron	Green	-	2	-	1	4	-	-	**7**
Lapwing	Red	-	-	5	-	-	-	-	**5**
Meadow Pipit	Red	-	1	-	-	3	-	-	**4**
Swift	Red	-	-	-	-	3	-		**3**
Snipe	Red	-	-	-	-	-	-	2	**2**
Buzzard	Green	-	1	-	-	-	-	-	**1**
Little Egret	Green	Annex I	-	-	-	1	-	-	**1**
Sparrowhawk	Green	-	-	-	-	-	-	1	**1**
Kestrel	Red	-	-	-	-	-	-	1	**1**
Peregrine	Green	Annex I	-	-	1	-	-		**1**
T8_1									

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Mallard	Amber	-	1	42	12	120	90	6	**271**
Mute Swan	Amber	-	43	17	51	46	10	30	**197**
Teal	Amber	-	-	-	-	-	-	35	**35**
Tufted Duck	Amber	-	15	2	16	-	-	-	**33**
Black-headed Gull	Amber	-	2	7	6	3	-	-	**18**
Ringed Plover	Amber	-	4	8	-	3	-	-	**15**
Little Grebe	Green	-	-	8	-	1	2	2	**13**
Lapwing	Red	-	-	4	-	3	-	-	**7**
Lesser Black-backed Gull	Amber	-	-	-	-	-	6	-	**6**
Cormorant	Amber	-	5	-	-	-	-	-	**5**
Grey Heron	Green	-	-	1	1	1	1	-	**4**
Swift	Red	-	-	-	-	-	2	-	**2**
Great Crested Grebe	Amber	-	1	1	-	-	-	-	**2**
Redshank	Red	-	-	1	-	1	-	-	**2**
Common Sandpiper	Amber	-	-	-	-	1	-	-	**1**
Little Egret	Green	Annex I	-	-	-	1	-	-	**1**
Kestrel	Red	-	-	1	-	-	-	-	**1**
Snipe	Red	-	-	1	-	-	-	-	**1**
Meadow Pipit	Red	-	1	-	-	-	-	-	**1**
Sparrowhawk	Green	-	-	-	-	-	-	1	**1**
T8_2									
Lapwing	Red	-	2	5	3	3	-	-	**13**
Buzzard	Green	-	1	-	1	1	4	1	**8**
Ringed Plover	Amber	-	-	3	2	1	-	-	**6**
Meadow Pipit	Red	-	1	1	-	3	-	-	**5**

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Peregrine	Green	Annex I	1	-	1	-	-	1	3
Lesser Black-backed Gull	Amber	-	-	-	-	-	3	-	3
Mallard	Amber	-	-	3	-	-	-	-	3
Kestrel	Red	-	-	-	-	1	1	-	2
Sparrowhawk	Green	-	-	-	1	-	1	-	2
Snipe	Red	-	-	1	-	-	-	-	1
T9									
Lapwing	Red	-	2	2	2	1	-	-	7
Snipe	Red	-	1	1	-	1	1	2	6
Moorhen	Green	-	1	2	2	-	-	-	5
Mute Swan	Amber	-	4	1	-	-	-	-	5
Meadow Pipit	Red	-	2	1	1	-	-	-	4
Grey Heron	Green	-	1	-	1	-	-	-	2
Kestrel	Red	-	-	-	-	-	1	1	2
Buzzard	Green	-	-	-	-	1	-	1	2
Black-headed Gull	Amber	-	-	-	2	-	-	-	2
T10									
Mallard	Amber	-	1	10	-	1	3	3	18
Meadow Pipit	Red	-	3	1	5	3	-	-	12
Mute Swan	Amber	-	-	1	8	-	-	-	9
Kestrel	Red	-	1	-	1	1	-	1	4
Lapwing	Red	-	-	3	-	-	-	-	3
Snipe	Red	-	-	1	-	-	-	1	2
Grey Heron	Green	-	1	-	-	1	-	-	2
Buzzard	Green	-	-	-	-	-	2	-	2
Black-headed Gull	Amber	-	-	1	-	-	-	-	1

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Apr	May	Jun	Jul	Aug	Sep	Total
Moorhen	Green	-	-	-	-	-	1	-	**1**
T11									
Meadow Pipit	Red	-	1	2	3	6	-	12	**24**
Buzzard	Green	-	1	-	1	2	1	-	**5**
Kestrel	Red	-	-	-	-	2	1	1	**4**
Sparrowhawk	Green	-	-	-	-	-	-	1	**1**
Snipe	Red	-	1	-	-	-	-	-	**1**
T12									
Meadow Pipit	Red	-	1	1	2	4	-	7	**15**
Buzzard	Green	-	-	-	-	1	-	2	**3**
Mallard	Amber	-	1	2	-	-	-	-	**3**
Sparrowhawk	Green	-	1	-	-	-	1	-	**2**
Peregrine	Green	Annex I	-	-	1	**1**	-	-	**2**
Kestrel	Red	-	-	-	1	1	-	-	**2**

7°20'0"W
7°13'50"W
7°7'40"W
53°26'30"N
53°23'0"N
53°19'30"N
742000
736000
643000
649500
656000

Meadow Pipit
Snipe

Mallard
Meadow Pipit

Black-headed
Gull
Grey heron
Lapwing
Meadow Pipit
Moorhen
Mute Swan

Black-headed
Gull
Mute Swan
Tufted Duck

Grey Heron
Little Grebe
Mute Swan

Grey Heron
Mallard

Lapwing
Meadow Pipit

Black-headed Gull
Cormorant
Great Cresed Grebe
Mallard
Ringed Plover
Tufted Duck

Lapwing
Meadow Pipit

Black-headed Gull
Grey Heron
Lapwing
Mute Swan
Redshank
Ringed Plover

Lapwing
Ringed Plover
Snipe

Lapwing
Ringed Plover

Black-headed Gull
Lapwing

Mallard
Meadow Pipit

Black-headed Gull
Grey Heron

Black-headed Gull
Cormorant
Meadow Pipit
Mute Swan

Buzzard
Meadow Pipit

Black-headed Gull
Great Crested Grebe
Little Grebe
Mute Swan
Snipe
Tufted Duck

Mute Swan
Ringed Plover

Black-headed Gull
Tufted Duck

Lapwing
Little Grebe
Mallard
Mute Swan

Mallard
Meadow Pipit
Snipe

Black-headed Gull
Little Grebe
Mallard
Meadow Pipit
Tufted Duck

Grey Heron
Mute Swan

Meadow Pipit
Sparrowhawk

Mallard
Meadow Pipit

Mallard
Meadow Pipit

Earthstar Geographics



Legend

- Derrygreenagh Wind and Solar -Proposed

Developments Non-flight observations

- Buzzard
- Grey Heron
- Redshank
- Moorhen
- Ringed Plover
- Mallard
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Lapwing
- Meadow Pipit
- Great Crested Grebe
- Peregrine Falcon
- Tufted Duck
- Black-headed Gull
- Cormorant
- Sparrowhawk

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	18/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord Na Mona - Derrygreenagh Wind and Solar

Title: Figure 2.7 Transect Survey April-June 2024 Observations

Scale @ A3: 1:50,000

Prepared by:	Checked by:	Date:
S.Pezzetta	J.Martins	November 2024

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Map Ref: 11458-026-Jul..Sep24-WAD..R-TOB-A

Draft: A

7°20'0"W
7°13'50"W
7°7'40"W
53°26'30"N
53°23'0"N
53°19'30"N
742000
736000
643000
649500
656000
Maxar, Microsoft

Kestrel
Meadow Pipit

Grey Heron
Mallard

Black-headed Gull
Common Sandpiper
Grey heron
Little Egret
Little Grebe
Mute Swan
Redshark
Ringed Plover

Mallard
Meadow Pipit

Little Grebe
Mallard
Mute Swan
Teal

Kestrel
Meadow Pipit

Black-headed Gull
Common Gull
Meadow Pipit
Snipe

Lesser Black-backed Gull
Sparrowhawk

Snipe
Meadow Pipit

Mallard
Mute Swan

Black-headed Gull
Little Grebe
Mallard
Meadow Pipit
Tufted Duck

Black-headed Gull
Common Gull
Grey Heron
Little Egret

Grey Heron
Mallard



Legend

Derrygreenagh Wind and Solar - Proposed Developments

Non-flight observations

- Swift
- Buzzard
- Grey Heron
- Redshank
- Moorhen
- Ringed Plover
- Mallard
- Lesser Black-backed Gull
- Kestrel
- Mute Swan
- Snipe
- Little Grebe
- Common Gull
- Lapwing
- Meadow Pipit
- Peregrine Falcon
- Common Sandpiper
- Black-headed Gull
- Little Egret
- Sparrowhawk
- Teal

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	18/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord na Mona - Derrygreenagh Wind and Solar

Title: Figure 2.8 Transect Survey July-September 2024 Observations

Scale @ A3: 1:50,000

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7°20'0"W
7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
740000
735000
644000
649500
655000

Little Grebe
Mallard
Mute Swan

Little Grebe
Mute Swan

Earthstar Geographics



Legend

Derrygreenagh Wind and Solar - Proposed Developments Non-flight observations

- Ringed Plover
- Mallard
- Kestrel
- Mute Swan
- Little Grebe
- Common Gull
- Tufted Duck
- Black-headed Gull

0 1 2
Kilometres

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A	18/11/2024	First issue	S.P	J..M
Rev	Date	Description	By	Chkd.

Client:

Bord na Móna

Project:

Bord Na Mona - Derrygreenagh Wind and Solar

Title:

Figure 2.9
'Confirmed' Sightings of Breeding April to September 2024 Observations

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7°15'0"W
7°10'0"W
53°26'0"N
53°24'0"N
53°22'0"N
53°20'0"N
740000
735000
644000
649500
655000

Lapwing
Moorhen
Meadow Pipit

Black-headed Gull
Common Sandpiper
Little Grebe
Ringed Plover

Black-headed Gull
Lapwing
Redshank
Ringed Plover

Lapwing
Ringed Plover

Black-headed Gull
Little Grebe
mallard
Meadow Pipit
Tufted Duck

Lapwing
Ringed Plover
Snipe

Black-headed Gull
Great Crested Grebe
Snipe

Black-headed Gull
Grey Heron
Little Egret

Maxar, Microsoft



Legend

Derrygreenagh Wind and Solar Farm - Proposed Developments Non-flight observations

- Swift
- Buzzard
- Grey Heron
- Redshank
- Moorhen
- Ringed Plover
- Mallard
- Snipe
- Little Grebe
- Lapwing
- Meadow Pipit
- Great Crested Grebe
- Tufted Duck
- Common Sandpiper
- Black-headed Gull
- Little Egret
- Sparrowhawk
- Yellowhammer

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	18/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord Na Mona - Derrygreenagh Wind and Solar

Title: Figure 2.10 ‘Probable' Sightings of Breeding April to September 2024 Observations

Scale @ A3: 1:50,000

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Map Ref: 11458-033-Apr..Sep24-Br.Prob-TOB-A

Draft: A

2.5 WOODCOCK TRANSECT SURVEYS

Woodcock (*Scolopax rusticola*) Transect surveys were undertaken in areas of suitable habitat withing the area of the proposed project. The survey methodology followed the recommendations of Gilbert *et al.* (1998) for surveying Woodcock, with three survey visits undertaken between May and June 2024. Surveyors were in position from an hour before sunset until an hour after sunset. The aim of the survey was to record the presence of roding (displaying) male Woodcock and, thereby, establish the distribution and abundance of the species in the study area. A total of 74 roding Woodcock males were recorded, along with two other target species – Snipe (*Gallinago gallinago*) and Lapwing (Table 2-10).

Figure 2-11 displays the observations recorded during the Woodcock Transect Survey at the locations identified in Table 2-11.

Table 2-10: Summary of Woodcock Transect Surveys in May and June 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Number of observations over the survey period
Woodcock	Red	-	74
Snipe	Red	-	4
Lapwing	Red	-	1

Table 2-11: Distribution of Woodcock Transect Surveys in May and June 2024

Species	BoCCI (Gilbert et al., 2021)	Annex I of Birds Directive (2009/147/EC)	Number of observations over the survey period
WK1			
Woodcock	Red	-	14
Snipe	Red	-	2
Lapwing	Red	-	1
WK2			
Woodcock	Red	-	37
WK3			
Woodcock	Red	-	10
WK4			
Woodcock	Red	-	13
Snipe	Red	-	2

7°20'0"W
7°13'50"W
7°7'40"W
53°26'30"N
53°23'0"N
53°19'30"N
742000
736000
643000
649500
656000
Maxar, Microsoft



Legend

- Derrygreenagh Wind and Solar - Proposed Developments
- Non-flight observations
  - Snipe
  - Lapwing
  - Woodcock

0 1 2
Kilometres

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Rev	Date	Description	By	Chkd.
A	18/11/2024	First issue	S.P	J..M

Client: Bord na Móna

Project: Bord na Mona - Derrygreenagh Wind and Solar

Title:

Figure 2.11
Woodcock Survey
May-June 2024 Observations

Scale @ A3: 1:50,000

Prepared by:	Checked by:	Date:
S.Pezzetta	J.Martins	November 2024

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Map Ref: 11458-029-Apr..Jun24-WCK-TOB-A

Draft: A

3. CONCLUSION

This report summarises the results of bird surveys undertaken by TOBIN at the proposed Derrygreenagh Wind and Solar Farm site during the Breeding Season 2024 (April to September).

In total, 37 target species of birds were identified at the proposed wind farm site and hinterland during breeding season during all surveys. The most common birds sighted were Mute Swan, Mallard, Black-headed Gull, and Lapwing. Additionally, five raptor species were recorded at the site – Buzzard, Kestrel, Sparrowhawk, Peregrine, and Merlin (*Falco columbarius*).

Target species recorded at the Derrygreenagh Wind and Solar Farm site and hinterland during the breeding bird season 2024 included several species listed in Annex I of the Birds Directive [i.e. Crane (*Grus grus*),Golden Plover(*Pluvialis apricaria*), Kingfisher (*Alcedo atthis*), Little Egret (*Egretta garzetta*),

Merlin, Peregrine and Whooper Swan (*Cygnus cygnus*)] and ten species classified by Gilbert *et al.* (2021) as red listed ([i.e. Curlew (*Numenius Arquata*), Golden Plover, Grey Wagtail (*Motacilla cinerea*), Kestrel, Lapwing, Meadow Pipit, Redshank (*Tringa tetanus*), Snipe, Swift (*Apus apus*)and Woodcock]. Notably, 13 target bird species were sighted as 'Confirmed' breeders, and 22 as 'Probable' breeders. The areas of the most significant breeding activity of the target bird species withing the proposed wind farm site are Derryarkin Bog and Drumman Bog, especially the vicinity of the quarry ponds at both locations.

4. REFERENCES

Bibby, C.J., Burgess, N.D., Hill, D.A. and Mustoe, S.H. (2000). *Bird Census Techniques.* Academic Press.

CBS (2012) *CBS Manual: Guidelines for Countryside Bird Survey Participants.* CBS – Birdwatch Ireland & National Parks and Wildlife of the Department of Arts, Heritage and the Gaeltacht.

Gilbert, G., Gibbons, D.W., & Evans, J. (1998) *Bird Monitoring Methods: A Manual of Techniques for UK Key Species.* The Royal Society for the protection of Birds, Sandy, Bedfordshire, England.

Gilbert, G., Stanbury, A. and Lewis, L. (2021) *Birds of Conservation Concern in Ireland 4: 2020–2026, Irish Birds*, 43, pp. 1–22.

SNH (2017) *Recommended bird survey methods to inform impact assessment of onshore wind farms.* Scottish Natural Heritage.



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