

# Ardderroo Windfarm EIAR Co. Galway

## Birds Technical Appendix 7-3



Planning & Environmental Consultants

## Appendix 7.3 – Summary Tables Contents

<b>Table 1: Vantage Point Survey Effort Summary</b> .....	<b>2</b>
<b>Table 2: Monthly Distribution of Target Species during VP Surveys</b> .....	<b>3</b>
<b>Table 3: Observations at PCH for Target Species during VP Surveys</b> .....	<b>6</b>
<b>Table 4: Brown and Shepard Breeding Territories</b> .....	<b>8</b>
<b>Table 5: All Red Grouse Observations during Targeted Red Grouse Surveys</b> .....	<b>10</b>
<b>Table 6: Monthly distribution of flight activity during Breeding Raptor Surveys.</b> .....	<b>11</b>
<b>Table 7: Wetland and Waterbird Survey Sites</b> .....	<b>12</b>
<b>Table 8: Whooper Swan Observations during Wetland and Waterbird Counts</b> .....	<b>17</b>
<b>Table 9: Golden Plover Observations during Wetland and Waterbird Counts</b> .....	<b>21</b>
<b>Table 10: White-tailed Eagle Observations during Wetland and Waterbird Counts</b> .....	<b>22</b>
<b>Table 11: Common Gull Observations during Wetland and Waterbird Counts</b> .....	<b>23</b>
<b>Table 12: Cormorant Observations during Wetland and Waterbird Counts</b> .....	<b>25</b>
<b>Table 13: Common Tern Observations during Wetland and Waterbird Counts</b> .....	<b>30</b>
<b>Table 14: Black-headed Gull Observations during Wetland and Waterbird Counts</b> .....	<b>31</b>
<b>Table 15: Herring Gull Observations during Wetland and Waterbird Counts</b> .....	<b>32</b>
<b>Table 16: Lapwing Observations during Wetland and Waterbird Counts</b> .....	<b>33</b>
<b>Table 17: Wigeon Observations during Wetland and Waterbird Counts</b> .....	<b>34</b>

**Table 1: Vantage Point Survey Effort Summary Table**

VPs	Months	Minimum Effort/month
*2016 Breeding Season (10VPs)	Mar-Sep	6 hours/VP/month
2016/2017 Non-Breeding Season (10VPs)	Oct-Mar	6 hours/VP/month
2017 Breeding Season (10VPs)	Apr-Sep	6 hours/VP/month
2017/2018 Non-Breeding Season (10VPs)	Oct-Mar	6 hours/VP/month
<b>*Nine VPs surveyed in March and April 2016. VP11 was added in May 2018 to replace VP3.</b>		

**Table 2: Monthly Distribution of Target Species during VP Surveys**

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Whooper Swan	2016	records			0	0	0	0	0	0	0	1	2	0	2	
		bird-secs			0	0	0	0	0	0	0	0	120	111	0	231
	2017	records	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		bird-secs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2018	records	0	0	0											0
		bird-secs	0	0	0											0
Greenland White-fronted Goose	2016	records			0	0	0	0	0	0	0	1	0	0	1	
		bird-secs			0	0	0	0	0	0	0	0	30	0	0	30
	2017	records	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		bird-secs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2018	records	0	0	0											0
		bird-secs	0	0	0											0
White-tailed Eagle	2016	records			0	1	2	0	0	0	0	0	0	0	3	
		bird-secs			0	45	200	0	0	0	0	0	0	0	245	
	2017	records	0	0	0	0	0	0	0	0	0	0	0	0	0	
		bird-secs	0	0	0	0	0	0	0	0	0	0	0	0	2	
	2018	records	1	1	0											399
		bird-secs	384	15	0											0
Common Gull	2016	records			0	0	0	1	0	0	1	0	0	0	2	
		bird-secs			0	0	0	35	0	0	15	0	0	0	50	
	2017	records	0	0	0	1	0	0	0	1	0	0	0	0	2	
		bird-secs	0	0	0	68	0	0	0	124	0	0	0	0	192	
	2018	records	0	0	0											0
		bird-secs	0	0	0											0
Cormorant	2016	records			3	1	11	8	10	0	4	8	9	4	58	

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2017	bird-secs			120	10	270	295	465	0	130	450	324	355	<b>2419</b>	
		records	0	4	1	1	0	3	3	1	2	1	4	3	<b>23</b>	
	2018	bird-secs	0	110	176	78	0	160	106	148	85	73	121	90	<b>1147</b>	
		records	2	4	0											<b>6</b>
		bird-secs	120	136	0											<b>256</b>
Hen Harrier	2016	records			0	0	0	0	0	0	0	0	4	2	<b>6</b>	
		bird-secs			0	0	0	0	0	0	0	0	296	50	<b>346</b>	
	2017	records	0	0	3	0	0	0	0	0	0	0	3	2	<b>8</b>	
		bird-secs	0	0	2835	0	0	0	0	0	0	0	113	203	<b>3151</b>	
	2018	records	3	2	0											<b>5</b>
		bird-secs	126	175	0											<b>301</b>
Merlin	2016	records			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
		bird-secs			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
	2017	records	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>	
		bird-secs	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>	
	2018	records	0	1	0											<b>1</b>
		bird-secs	0	28	0											<b>28</b>
Woodcock	2016	records			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
		bird-secs			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
	2017	records	0	0	1	0	0	0	0	0	0	0	0	0	<b>1</b>	
		bird-secs	0	0	5	0	0	0	0	0	0	0	0	0	<b>5</b>	
	2018	records	0	0	0											<b>0</b>
		bird-secs	0	0	0											<b>0</b>
Herring Gull	2016	records			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
		bird-secs			0	0	0	0	0	0	0	0	0	0	<b>0</b>	
	2017	records	0	1	0	0	0	0	0	0	0	0	0	0	<b>1</b>	

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2018	bird-secs	0	140	0	0	0	0	0	0	0	0	0	0	140	
		records	0	0	0											0
		bird-secs	0	0	0											0
Kestrel	2016	records			3	2	6	11	24	20	10	15	16	9	116	
		bird-secs			200	35	670	1330	3300	1495	615	1535	1475	807	11462	
	2017	records	0	0	6	6	1	2	6	6	3	1	1	1	33	
		bird-secs	0	0	459	463	49	30	206	284	108	23	80	50	1752	
	2018	records	9	0	0											9
		bird-secs	362	0	0											362
Sparrowhawk	2016	records			2	2	5	7	4	0	1	2	3	1	27	
		bird-secs			60	85	65	135	70	0	15	45	110	6	591	
	2017	records	2	4	1	3	4	3	8	0	1	2	0	1	29	
		bird-secs	180	118	27	128	67	31	215	0	10	32	0	150	958	
	2018	records	0	2	2											4
		bird-secs	0	76	110											186
Buzzard	2016	records			0	0	0	0	0	0	0	0	1	0	1	
		bird-secs			0	0	0	0	0	0	0	0	48	0	48	
	2017	records	1	0	0	0	0	1	0	0	0	0	0	0	2	
		bird-secs	100	0	0	0	0	71	0	0	0	0	0	0	171	
	2018	records	1	0	0											1
		bird-secs	100	0	0											100

Based on analysis of all flight activity data and observations of flights below and above the collision risk height band. Survey period March 2016 – March 2018 (Shaded cells = months not surveyed).

**Table 3: Observations at PCH for Target Species during VP Surveys**

Species	Values	VP1A	VP2	VP4	VP5	VP6A	VP7	VP8	VP9	VP10	VP11	Totals
Whooper Swan	Observations (all Bands)	0	0	0	0	3	0	0	0	0	0	<b>3</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	105	0	0	0	0	0	<b>105</b>
Greenland-white Fronted Goose	Observations (all Bands)	0	0	0	0	0	1	0	0	0	0	<b>1</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	0	0	0	0	0	0	<b>0</b>
White-tailed Eagle	Observations (all Bands)	0	0	1	1	1	0	0	0	0	2	<b>5</b>
	Duration in PCH (Band 3, in Seconds)	0	0	45	100	60	0	0	0	0	299	<b>504</b>
Common Gull	Observations (all Bands)	1	0	0	1	0	0	0	1	1	0	<b>4</b>
	Duration in PCH (Band 3, in Seconds)	35	0	0	5	0	0	0	124	68	0	<b>232</b>
Cormorant	Observations (all Bands)	14	2	9	15	12	5	2	17	6	5	<b>87</b>
	Duration in PCH (Band 3, in Seconds)	63	40	364	145	81	140	84	660	217	157	<b>1951</b>
Hen Harrier	Observations (all Bands)	0	0	6	2	5	1	0	2	1	1	<b>18</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	36	0	0	0	0	0	0	<b>36</b>
Merlin	Observations (all Bands)	0	0	0	0	0	0	0	1	0	0	<b>1</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	0	0	0	0	0	0	<b>0</b>
Red Grouse	Observations (all Bands)	0	0	0	1	0	0	0	0	0	0	<b>1</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	0	0	0	0	0	0	<b>0</b>
Woodcock	Observations (all Bands)	0	0	1	1	0	0	0	0	0	0	<b>2</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	0	0	0	0	0	0	<b>0</b>
Herring Gull	Observations (all Bands)	0	0	0	0	0	0	0	0	0	1	<b>1</b>

Species	Values	VP1A	VP2	VP4	VP5	VP6A	VP7	VP8	VP9	VP10	VP11	Totals
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	0	0	0	0	0	0	<b>0</b>
Kestrel	Observations (all Bands)	14	9	20	9	17	31	0	22	29	8	<b>159</b>
	Duration in PCH (Band 3, in Seconds)	315	146	899	150	750	1245	0	778	1528	315	<b>6126</b>
Sparrowhawk	Observations (all Bands)	13	16	8	5	5	5	0	1	1	6	<b>60</b>
	Duration in PCH (Band 3, in Seconds)	96	60	170	0	67	181	0	0	0	0	<b>574</b>
Buzzard	Observations (all Bands)	0	1	0	0	2	0	0	1	0	0	<b>4</b>
	Duration in PCH (Band 3, in Seconds)	0	0	0	0	200	0	0	0	0	0	<b>200</b>
<b>Based on analysis of all flight data at PCH for each target species during each of the 10 different VP locations.</b>												



**Table 4: Brown and Shepard Breeding Territories**

Map Ref.	Survey Date	Section	Species	No. of birds	Habitat and Activity	Breeding Status
SH001	19/04/2016	Section 3	Sparrowhawk		Mixed broadleaved/conifer woodland Soaring over woodland	Suitable nesting habitat; Possible breeder
SH002	24/05/2017		Sparrowhawk	1	Conifers.	Agitated behaviour or anxiety calls. Probable breeder.
K001	27/04/2016	Section 5	Kestrel		PB, (Bogs) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding
K002	28/04/2016	Section 4	Kestrel		PB, (Bogs) (Mixed) Conifer woodland Hunting	Suitable nesting habitat; Possible breeder
K003	09/05/2016	Section 1	Kestrel		PB, (Bogs) Hunting	Suitable nesting habitat; Possible breeder
K004	12/05/2016	Section 4	Kestrel		PB, (Bogs) Hunting/Display flight	Courtship and display; Probable breeding
K005	20/05/2016	Section 3	Kestrel		PB, (Bogs)	Suitable nesting habitat; Possible breeder
GP001	20/05/2016	Section 3	Golden Plover	1	PB, (Bogs), Alarm calls	Agitated behaviour or anxiety calls; Probable breeding
GP002	27/04/2017		Golden Plover	1	Bog	Agitated behaviour or anxiety calls. Probable breeder.
CM001	11/05/2016	Section 1	Common Gull		FL2, (Acid oligotrophic lakes) Foraging	Recently fledged young/downy young; Possible breeder
CM002	28/06/2016	Section 3	Common Gull		1 breeding pair estimated.	Pair observed in suitable nesting habitat in breeding season; Probable breeding
RG001	27/05/2016	Section 2	Red Grouse		PB, (Bogs) Commuting	Suitable nesting habitat; Possible breeder
HG001	18/04/2016	Section 1	Herring Gull		PB, (Bogs) Commuting	Recently fledged young/downy young; Confirmed breeding
	15/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) WD4, (Conifer plantation) Male and female.	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	15/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) WD4, (Conifer plantation) Male and female.	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	15/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) WD4, (Conifer plantation) Male and female.	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	15/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) 1 breeding pair likely in Q2	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	16/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) Breeding pair likely	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	16/06/2016	Section 4	Meadow Pipit		PB2, (Upland blanket bog) Adult with food, breeding pair likely	Adults carrying faecal sac or food for young; Confirmed breeding
	23/06/2016	Section 5	Meadow Pipit		PB2, (Upland blanket bog) Adults - assumed breeding	Pair observed in suitable nesting habitat in breeding season; Probable breeding

Map Ref.	Survey Date	Section	Species	No. of birds	Habitat and Activity	Breeding Status
	23/06/2016	Section 5	Meadow Pipit		PB2, (Upland blanket bog) Adult with food	Adults carrying faecal sac or food for young; Confirmed breeding
	25/06/2016	Section 1	Meadow Pipit		PB2, (Upland blanket bog) Adult with food - 1 breeding pair in Q3	Adults carrying faecal sac or food for young; Confirmed breeding
	26/06/2016	Section 1	Meadow Pipit		PB2, (Upland blanket bog) Adult with food	Adults carrying faecal sac or food for young; Confirmed breeding
	26/06/2016	Section 1	Meadow Pipit		PB2, (Upland blanket bog) 2 breeding pairs of meadow pipit in Q4 likely	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	27/06/2016	Section 3	Meadow Pipit		PB2, (Upland blanket bog) 1 pair estimated in Q4	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	28/06/2016	Section 3	Meadow Pipit		PB, (Bogs) Breeding pair likely	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	28/06/2016	Section 3	Meadow Pipit		PB, (Bogs) Breeding pair likely	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	15/07/2016	Section 3	Meadow Pipit		PB2, (Upland blanket bog) Likely breeding pair	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	15/07/2016	Section 3	Meadow Pipit		PB2, (Upland blanket bog) Likely breeding pair	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	23/07/2016	Section 1	Meadow Pipit		PB2, (Upland blanket bog) Within the 500-metre buffer zone. Likely to be a breeding pair	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	26/07/2016	Section 5	Meadow Pipit		PB2, (Upland blanket bog) 1 breeding pair likely	Pair observed in suitable nesting habitat in breeding season; Probable breeding
	30/06/2016	Section 2	Grey Wagtail		BL3, (Buildings and artificial surfaces) Pair likely breeding. Seen in drain along road in western section of Q3	Pair observed in suitable nesting habitat in breeding season; Probable breeding
<b>Based on analysis of all possible/potential/confirmed breeding activity recorded during Adapted Brown and Shepard Walkovers during the 2016 &amp; 2017 Breeding Seasons (April-July).</b>						

**Table 5: All Red Grouse Observations during Targeted Red Grouse Surveys**

Map Ref No.	Date	Transect	Species Name	No. of birds	Easting	Northing	Surveyor
RG1001	05/03/2016	1	Red Grouse	1	13725	32154	CP
RG1002	05/03/2016	1	Red Grouse	1	13885	32263	CP
	05/03/2016	2	No sightings				CP
	05/03/2016	3	No sightings				CP
	05/03/2016	4	No sightings				CP
	05/03/2016	5	No sightings				CP
	05/03/2016	6	No sightings				CP
	05/03/2016	7	No sightings				CP
	05/03/2016	8	No sightings				CP
	05/03/2016	9	No sightings				CP
	05/03/2016	10	No sightings				CP
	11/03/2016	11	No sightings				CP
	11/03/2016	12	No sightings				CP
	11/03/2016	13	No sightings				CP
	11/03/2016	14	No sightings				CP
	31/03/2017	1	No sightings		14839	35635	
	31/03/2017	2	No sightings		14848	35629	
	31/03/2017	3	No sightings		14764	33583	
	31/03/2017	4	No sightings		14788	33473	
	31/03/2017	5	No sightings		13929	31918	
<b>All Data including surveys with no Red Grouse observations for the 2016/2017 surveys.</b>							

**Table 6: Monthly distribution of flight activity during Breeding Raptor Surveys.**

Species	Year	Standardised	April	May	June	July	Totals
Merlin	2016	No. of Observations	1	0	0	0	1
	2017	No. of Observations	0	0	0	0	0
Kestrel	2016	No. of Observations	0	5	8	35	48
	2017	No. of Observations	0	0	0	13	13
Sparrowhawk	2016	No. of Observations	0	1	2	0	3
	2017	No. of Observations	0	1	0	0	1
Based on analysis of all flight activity data and observations. Survey period = April - July for 2016 &2017.							

**Table 7: Wetland and Waterbird Survey Sites**

GIS Code	Wetland Name	Distance from Site (Km)	Longitude (Irish Grid X)	Latitude (Irish Grid Y)
1	Shannaghree Lough	4.28	110468	239885
2	Lough Tawney	3.79	111129	239683
3	Bunnagippaun Lough	3.30	112063	239478
4	Tullynasheoy	4.22	106065	229777
5	Lough Canagun	4.60	106335	228551
6	Lough More	4.02	107523	228719
7	Lough Bealacoan	4.18	107878	227749
8	Unnamed Lough (Letterfir bog)	4.02	108395	227658
9	Unnamed Lough (Letterfir bog)	4.17	108647	227380
10	Unnamed Lough (Letterfir bog)	3.77	108786	227753
11	Unnamed Lough (Letterfir bog)	3.38	108852	228141
12	Unnamed Lough (Letterfir bog)	3.26	108717	228346
13	Unnamed Lough (Letterfir bog)	2.88	109408	228475
14	Lough Bealanambrack	0.91	109163	230991
15	Loughaunayella	0.58	110120	230666
16	Unnamed Lough	0.49	110634	230684

**Table 7: Wetland and Waterbird Survey Sites**

GIS Code	Wetland Name	Distance from Site (Km)	Longitude (Irish Grid X)	Latitude (Irish Grid Y)
17	Loughanillaunmore	2.17	110722	228967
18	Lough Nataawneigher	3.79	109872	227455
19	Unnamed Lough	4.31	109291	227021
20	Unnamed Lough	4.16	109602	227113
21	Lough Nabrough	4.80	109873	226436
22	Boliska Eighter	4.47	110564	226660
23	Boliska Lough	3.71	111999	227453
24	Owenboliska	2.25	112207	229056
25	Lough Poll	2.89	113605	229074
26	Lochaín an Ghleanna Mhóir	4.08	112899	227350
27	Loch Cam	3.73	115061	228690
28	Lough Nambrackkeagh	4.08	114172	227969
29	Knocka Lough	4.76	115959	228027
30	Lough Beag/Seandh Chuillinn	3.97	117454	230333
31	Loch Seanadh Chuilínn	3.27	116605	230384
32	Lough Sliabh an Aonaigh	2.81	115884	230366

**Table 7: Wetland and Waterbird Survey Sites**

GIS Code	Wetland Name	Distance from Site (Km)	Longitude (Irish Grid X)	Latitude (Irish Grid Y)
33	Knockatee Lough	2.56	115145	230117
34	Loch Beag	2.19	114856	230369
35	An Loch Fhada	1.81	114647	230683
36	Loch na Cloiche Báine	1.96	114395	230351
37	Lough Thulaigh na nUan	0.56	113689	231589
38	Loch na nArd Doiriú	0.24	113099	231708
39	Loch Beag	0.19	112634	232025
40	Unnamed Lough	0.77	112565	231128
41	Unnamed Lough	1.15	112160	230337
42	Lough na mBrobhach	1.67	112302	229791
43	Lough Atavamore	3.79	118190	232341
44	Lough Atavabeg	3.78	118065	231880
45	Lough Aderreen	2.86	117379	233212
46	Lough Tawneybeg	2.73	117162	232608
47	Lough Kip	3.19	116971	230998
48	Lough Beg	4.72	119483	234335

**Table 7: Wetland and Waterbird Survey Sites**

GIS Code	Wetland Name	Distance from Site (Km)	Longitude (Irish Grid X)	Latitude (Irish Grid Y)
49	Ross Lake	4.06	118559	236549
50	Lough Aleen	3.56	118056	236483
51	Doonakilla Br.	3.43	117873	236695
52	Lough Parkyflaherty	3.10	117360	237182
53	Lough Naneevin	3.30	116148	238858
54	Gortacarnaun Lough	2.79	115927	238408
55	Knockaffrin Lough	2.39	115204	238291
56	Carrowndulla Lough	2.64	114529	238744
57	Buffy Lough	2.29	113540	238459
58	Unnamed Lough (Buffy)	0.55	113612	236626
59	Loch na bhFaoileán Beag	0.00	112283	233798
60	Lough Naweelen	0.00	112750	233127
61	Lough Fadda	0.00	113188	233453
62	Tullagharone Lough	0.00	113200	232379
63	Unnamed Lough (near vp4)	0.00	111455	233271
64	Unnamed Lough (near vp4)	0.00	111676	233271



**Table 7: Wetland and Waterbird Survey Sites**

GIS Code	Wetland Name	Distance from Site (Km)	Longitude (Irish Grid X)	Latitude (Irish Grid Y)
65	Lough Oughter	0.00	110477	232360
66	Unnamed Lough (vp11)	0.00	110669	232303
67	Unnamed Lough	0.00	111541	232159
68	Unnamed Lough	0.00	111014	232849
69	Lough Glenn	0.43	111481	235529
70	Uggool Lough	0.94	110462	235172
71	Seecon Lough	2.19	108700	235013
72	Unnamed Lough (Seecon)	3.46	107743	235960
73	Unnamed Lough (Seecon)	3.46	107886	236176
74	Unnamed Lough	4.61	107326	237339
75	Unnamed Lough	4.75	107249	237460
76	Unnamed Lough	2.26	110019	236774
77	Loughaundran	5.10	108354	239279
78	Loughaunnamuckmore	2.34	116928	235887

**Table 8: Whooper Swan Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Ross Lake	49	2016	No. of Individuals			0	0		0	0	0	0	8	<b>8</b>	
		2017	No. of Individuals	8	2	0	0	0	0	0	0	0	1	0	<b>11</b>
		2018	No. of Individuals	0	0	0									<b>0</b>
Buffy Lough	57	2016	No. of Individuals			0	0		0	0	0	8	6	<b>14</b>	
		2017	No. of Individuals	0	0	0	1	0	0	0	0	0	0	0	<b>1</b>
		2018	No. of Individuals	0	0	0									<b>0</b>
Lough Poll	25	2016	No. of Individuals			0	0		0	0	0	0	4	<b>4</b>	
		2017	No. of Individuals	8	0	2	0	0	0	0	0	0	0	0	<b>10</b>
		2018	No. of Individuals	0	0	0									<b>0</b>
Seecon Lough	71	2016	No. of Individuals			0	0		0	0	0	8	0	<b>8</b>	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	5									<b>5</b>
Lough Thulaigh na nUan	37	2016	No. of Individuals			0	0		0	0	0	8	0	<b>8</b>	
		2017	No. of Individuals	2	0	0	0	0	0	0	0	0	0	0	<b>2</b>
		2018	No. of Individuals	0	0	0									<b>0</b>

**Table 8: Whooper Swan Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Lough Atavamore	43	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	5	3	0	0	0	0	0	0	0	0	0	8
		2018	No. of Individuals	0	0	0									0
Unnamed Lough (Letterfir bog)	13	2016	No. of Individuals			0	0		0	0	0	0	4	4	
		2017	No. of Individuals	2	0	0	0	0	0	0	0	0	0	0	2
		2018	No. of Individuals	0	0	0									0
Unnamed Lough	19	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	6	0	6	
		2018	No. of Individuals	0	0	0									0
Lough Tawneybeg	46	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	4	0	0	0	0	0	0	0	2	0	6	
		2018	No. of Individuals	0	0	0									0
Knocka Lough	29	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	2	0	0	0	0	0	0	2	0	4	
		2018	No. of Individuals	0	0	0									0

**Table 8: Whooper Swan Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Lough Sliabh an Aonaigh	32	2016	No. of Individuals			0	0		0	0	0	0	3	<b>3</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	1	0	<b>1</b>
		2018	No. of Individuals	0	0	0								
Loughanillaunmore	17	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	3	0	<b>3</b>
		2018	No. of Individuals	0	0	0								
Lough Aderreen	45	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	3	0	0	0	0	0	0	0	0	<b>3</b>
		2018	No. of Individuals	0	0	0								
Lough Natawneighter	18	2016	No. of Individuals			0	0		0	0	0	0	1	<b>1</b>
		2017	No. of Individuals	0	2	0	0	0	0	0	0	0	0	<b>2</b>
		2018	No. of Individuals	0	0	0								
Boliska Lough	23	2016	No. of Individuals			0	0		0	0	0	2	0	<b>2</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								
Carowndulla Lough	56	2016	No. of Individuals			0	0		0	0	0	0	2	<b>2</b>

**Table 8: Whooper Swan Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0								0
Knockaffrin Lough	55	2016	No. of Individuals			0	0		0	0	0	0	0	0
		2017	No. of Individuals	0	0	2	0	0	0	0	0	0	0	2
		2018	No. of Individuals	0	0	0								
Lochaín an Ghleanna Mhóir	26	2016	No. of Individuals			0	0		0	0	0	0	2	2
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0								
Lough Bealanambrack	14	2016	No. of Individuals			0	0		0	0	0	0	2	2
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0								
Loughaunayella	15	2016	No. of Individuals			0	0		0	0	0	0	1	1
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0								

**Table 9: Golden Plover Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Unnamed Lough (Letterfir bog)	13	2016	No. of Individuals			0	0		0	0	0	3	0	<b>3</b>
		2017	No. of Individuals	0	4	15	3	0	0	0	0	0	0	<b>22</b>
		2018	No. of Individuals	0	24	3								
Unnamed Lough (Letterfir bog)	11	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	9	0	0								<b>9</b>
Tullynasheoy	4	2016	No. of Individuals			4	5		0	0	0	0	0	<b>9</b>
		2017	No. of Individuals	0	0	0	0	0			0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								<b>0</b>
Lough Bealacoan	7	2016	No. of Individuals			0	0		1	0	0	0		<b>1</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								<b>0</b>
Lough More	6	2016	No. of Individuals			0	0		1	0	0	0	0	<b>1</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								<b>0</b>

**Table 10: White-tailed Eagle Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Boliska Lough	23	2016	No. of Individuals			0	0		0	0	0		0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	1	0									1

**Table 11: Common Gull Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Ross Lake	49	2016	No. of Individuals			0	10		12	0	0	0	0	<b>22</b>
		2017	No. of Individuals	0	0	25	29	1	0	0	0	0	0	<b>55</b>
		2018	No. of Individuals	0	0	0								
Lough Sliabh an Aonaigh	32	2016	No. of Individuals			1	8		0	0	0	0	0	<b>9</b>
		2017	No. of Individuals	0	0	0	5	1	0	0	0	2	0	<b>8</b>
		2018	No. of Individuals	0	0	0								
Boliska Lough	23	2016	No. of Individuals			0	11		0	0	0	0	0	<b>11</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								
Knocka Lough	29	2016	No. of Individuals			0	6		0	0	0	8	6	<b>20</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								
Loughanillaunmore	17	2016	No. of Individuals			0	6		0	0	0	0	0	<b>6</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								



**Table 11: Common Gull Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Seecon Lough	71	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	4	0	0	0	0	0	0	4
		2018	No. of Individuals	0	0	0									0
Lough Tawneybeg	46	2016	No. of Individuals			0	3		0	0	0	0	0	3	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	0									0
Lough Bealacoan	7	2016	No. of Individuals			0	2		0	0	0	0	0	2	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	0									0

**Table 12: Cormorant Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Ross Lake	49	2016	No. of Individuals			0	1		1	0	9	1	13	<b>25</b>
		2017	No. of Individuals	8	3	8	4	6	0	0	2	6	6	<b>43</b>
		2018	No. of Individuals	11	13	13								
Boliska Lough	23	2016	No. of Individuals			1	4		0	0	0	0	2	<b>7</b>
		2017	No. of Individuals	1	0	1	0	0	0	0	1	0	0	<b>3</b>
		2018	No. of Individuals	1	3	1								<b>5</b>
Lough Sliabh an Aonaigh	32	2016	No. of Individuals			0	0		0	0	0	1	1	<b>2</b>
		2017	No. of Individuals	1	1	1	1	0	0	0	2	0	0	<b>6</b>
		2018	No. of Individuals	0	4	1								<b>5</b>
Loughanillaunmore	17	2016	No. of Individuals			1	3		0	0	0	0	0	<b>4</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	4	0	<b>4</b>
		2018	No. of Individuals	0	0	0								<b>0</b>
Seecon Lough	71	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	4	1	0	0	0	0	1	0	0	<b>6</b>
		2018	No. of Individuals	1	0	1								<b>2</b>

**Table 12: Cormorant Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Lough Atavamore	43	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	1	0	2	0	0	0	0	1	0	0	4
		2018	No. of Individuals	0	1	1									2
Lough More	6	2016	No. of Individuals			0	3		0	0	0	0	0	3	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	0								0	
Lough Thulaigh na nUan	37	2016	No. of Individuals			0	3		0	0	0	0	0	3	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	0								0	
Loch na nArd Doiriú	38	2016	No. of Individuals			0	1		0	0	2	0	0	3	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	0								0	
Lough Poll	25	2016	No. of Individuals			1	0		0	0	0	0	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	0	1								1	

**Table 12: Cormorant Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Lough Tawneybeg	46	2016	No. of Individuals			0	0		0	0	1	0	0	1	
		2017	No. of Individuals	0	0	0	1	0	0	0	0	0	0	0	1
		2018	No. of Individuals	0	0	0									0
Lough Bealacoan	7	2016	No. of Individuals			0	1		0	0	0	0	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	1	0									1
Knocka Lough	29	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	2	0									2
Loch na bhFaoileán Beag	59	2016	No. of Individuals			0	1		0	0	0	0	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0
Lough Naneevin	53	2016	No. of Individuals			0	1		0	0	0	0	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0

**Table 12: Cormorant Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Lough Atavabeg	44	2016	No. of Individuals			0	0		0	0	0	0	1	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0
Lough Natawneigher	18	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	1	0	1	
		2018	No. of Individuals	0	0	0									0
Lough Naweelen	60	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	1	0	0	0	0	0	1	
		2018	No. of Individuals	0	0	0									0
Lough Parkyflaherty	52	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	
		2018	No. of Individuals	0	1	0									1
Bunnagippaun Lough	3	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	1	0	0	0	0	0	0	0	0	0	1	
		2018	No. of Individuals	0	0	0									0

**Table 12: Cormorant Observations during Wetland and Waterbird Counts**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Tullynasheoy	4	2016	No. of Individuals			0	1		0	0	0	0	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0
Unnamed Lough	40	2016	No. of Individuals			0	0		0	0	0	1	0	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0
Unnamed Lough (Letterfir bog)	13	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	1	0	0	0	0	0	0	0	0	0	1	
		2018	No. of Individuals	0	0	0									0

**Table 13: Common Tern Observations during Wetland and Waterbird Surveys**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Ross Lake	49	2016	No. of Individuals			0	2		0	0	0	0	0	2	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0
Loughanillaunmore	17	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	1	0	0	0	0	0	0	0	0	0	0	1
		2018	No. of Individuals	0	0	0									0

**Table 14: Black-headed Gull Observations during Wetland and Waterbird Surveys**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Ross Lake	49	2016	No. of Individuals			0	16		0	3	1	0	0	<b>20</b>
		2017	No. of Individuals	0	21	5	0	7	0	0	0	0	0	<b>33</b>
		2018	No. of Individuals	5	47	13								<b>65</b>
Knockaffrin Lough	55	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	14								<b>14</b>
Knocka Lough	29	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	3								<b>3</b>
Lough Sliabh an Aonaigh	32	2016	No. of Individuals			0	0		0	0	0	0	0	<b>0</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	2	0								<b>2</b>
Loughanillaunmore	17	2016	No. of Individuals			0	2		0	0	0	0	0	<b>2</b>
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	<b>0</b>
		2018	No. of Individuals	0	0	0								<b>0</b>



**Table 15: Herring Gull Observations during Wetland and Waterbird Surveys**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Ross Lake	49	2016	No. of Individuals			0	0		0	0	0	0	0	0
		2017	No. of Individuals	0	0	0	0	0	0	0	0	7	0	7
		2018	No. of Individuals	0	0	0								
Boliska Lough	23	2016	No. of Individuals			0	2		0	0	0	0	0	2
		2017	No. of Individuals	0	0	0	2	0	0	0	0	0	0	2
		2018	No. of Individuals	0	0	0								

**Table 16: Lapwing Observations during Wetland and Waterbird Surveys**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year
Ross Lake	49	2016	No. of Individuals			0	0		0	0	0	0	0	0
		2017	No. of Individuals	34	7	0	0	0	0	0	0	0	3	44
		2018	No. of Individuals	0	0	0								

**Table 17: Wigeon Observations during Wetland and Waterbird Surveys**

Location	GIS Location Code	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals for each year	
Boliska Lough	23	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	25	0	0									25
Seecon Lough	71	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	4									4
Unnamed Lough	19	2016	No. of Individuals			0	0		0	0	0	0	0	0	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	3									3
Lough Poll	25	2016	No. of Individuals			0	0		0	0	0	0	1	1	
		2017	No. of Individuals	0	0	0	0	0	0	0	0	0	0	0	0
		2018	No. of Individuals	0	0	0									0