



## **APPENDIX 7-3**

### **BIRD SURVEY SUMMARY TABLES**

## Appendix 7-3 – Summary Tables

Glenard Wind Farm



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## APPENDIX 7-3 (SUMMARY TABLES)

Table 1 Vantage Point Survey Effort Summary Table

Survey Season	Months	Minimum Effort per VP
2016/2017 Non-Breeding Season (6 VPs)	Sep - Mar	36 hours/VP
2017 Breeding Season (6 VPs)	Apr - Sep	36 hours/VP
2017/2018 Non-Breeding Season (6 VPs)	Oct - Mar	36 hours/VP
2018 Breeding Season (6 VPs)	Apr - Sep	36 hours/VP
2018/2019 Non-Breeding Season (6 VPs)	Oct - Mar	36 hours/VP
2019 Breeding Season (6 VPs)	Apr - Sep	36 hours/VP
2021 Non-Breeding Season (7 VPs)	Jan - Mar	18 hours/VP
2021 Breeding Season (7 VPs)	Apr - Sep	36 hours/VP



Table 2 Monthly distribution of flight activity for the target species recorded during vantage point surveys

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Whooper Swan	2016	records										3	5	1	9	
		bird-secs										149	197	42	388	
	2017	records	1										1	3		5
		bird-secs	64										79	295		438
	2018	records	1										3			4
		bird-secs	65										120			185
	2019	records														0
		bird-secs														0
	2021	records														0
		bird-secs														0
Golden Plover	2016	records													0	
		bird-secs													0	
	2017	records		1		6										7
		bird-secs		47		895										942
	2018	records											1			1
		bird-secs											15			15
	2019	records	1	1												2
		bird-secs	15	5												20
	2021	records														0
		bird-secs														0
Hen Harrier	2016	records										3	1	3	7	
		bird-secs										147	40	165	352	
	2017	records	1		2				1	1			1	1		7
		bird-secs	110		133				111	105			113	144		716
	2018	records			2		3				2	4	1	1	1	14
		bird-secs			153		52				460	505	191	32	20	1,413
	2019	records	4		2	3	2	1				1				13
		bird-secs	320		495	29	207	280			500				1,831	
	2021	records	4	5	3			2		1	5				20	
		bird-secs	1,066	1,870	1,133			121		74	871				5,135	
Merlin	2016	records													0	
		bird-secs													0	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2017	records													0	
		bird-secs														0
	2018	records											1			1
		bird-secs											40			40
	2019	records		1	1	2					1					5
		bird-secs		45	8	148					90					291
	2021	records	1	1	2		2	1	1							8
		bird-secs	29	31	298		47	27	17							449
Peregrine	2016	records													0	
		bird-secs														0
	2017	records			1				1							2
		bird-secs			27				74							101
	2018	records			1		1						1			3
		bird-secs			75		20						30			125
	2019	records									2	1				3
		bird-secs									150	30				180
	2021	records		1					1		2	1				5
		bird-secs		49					56		90	32				227
	Golden Eagle	2016	records													0
			bird-secs													
2017		records				7										7
		bird-secs				2727										2,727
2018		records	1								1					2
		bird-secs	81								25					106
2019		records									2					2
		bird-secs									40					40
2021	records														0	
	bird-secs														0	
White-tailed Eagle	2016	records													0	
		bird-secs														0
	2017	records														0
		bird-secs														0
2018	records										1				1	





Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
	2021	records													0
		bird-secs													0
Herring Gull	2016	records													0
		bird-secs													0
	2017	records													0
		bird-secs													0
	2018	records						4		4					8
		bird-secs						666		169					835
	2019	records						1	3	1					5
		bird-secs						300	304	22					626
2021	records													0	
	bird-secs													0	
Wigeon	2016	records													0
		bird-secs													0
	2017	records												1	1
		bird-secs												50	50
	2018	records													0
		bird-secs													0
	2019	records													0
		bird-secs													0
2021	records													0	
	bird-secs													0	
Common Gull	2016	records												1	1
		bird-secs												45	45
	2017	records							1						1
		bird-secs							130						130
	2018	records													0
		bird-secs													0
	2019	records													0
		bird-secs													0
2021	records													0	
	bird-secs													0	
Greylag Goose	2016	records											1	1	2





Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals		
	2017	bird-secs												35	55	<b>90</b>	
		records														<b>0</b>	
	2018	bird-secs														<b>0</b>	
		records	1	1	1											<b>3</b>	
	2019	bird-secs	63	35	95											<b>193</b>	
		records														<b>0</b>	
	2021	bird-secs														<b>0</b>	
		records														<b>0</b>	
	Mallard	2016	bird-secs												1		<b>1</b>
			records														<b>0</b>
2017		bird-secs	1		1	1							1			<b>4</b>	
		records				20										<b>20</b>	
2018		bird-secs	1	1												<b>2</b>	
		records														<b>0</b>	
2019		bird-secs														<b>0</b>	
		records														<b>0</b>	
2021		bird-secs														<b>0</b>	
		records														<b>0</b>	
Grey Heron	2016	bird-secs											2		1	<b>3</b>	
		records											109		30	<b>139</b>	
	2017	bird-secs			2		1					1	2		1	<b>7</b>	
		records			102		40					59	157		91	<b>449</b>	
	2018	bird-secs					1					1	2			<b>4</b>	
		records					16					70	166			<b>252</b>	
	2019	bird-secs														<b>3</b>	
		records				2		1								<b>139</b>	
	2021	bird-secs														<b>0</b>	
		records														<b>0</b>	
Curlew	2016	bird-secs											1		2	<b>3</b>	
		records											63		142	<b>205</b>	
	2017	bird-secs														<b>0</b>	
		records														<b>0</b>	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2018	records													0	
		bird-secs														0
	2019	records														0
		bird-secs														0
	2021	records								1						1
		bird-secs								180						180
Woodcock	2016	records											1	1	2	
		bird-secs											16	13	29	
	2017	records											1		1	
		bird-secs											15		15	
	2018	records													0	
		bird-secs													0	
	2019	records	1												1	
		bird-secs	8												8	
	2021	records													0	
		bird-secs													0	
Buzzard	2016	records										7	6	3	16	
		bird-secs										692	275	166	1,133	
	2017	records	4	5	12	5	9	9	2	5	4	7	4	3	69	
		bird-secs	259	268	1172	2209	2212	2162	988	474	278	534	254	395	11,205	
	2018	records	2	4	3		6	9	4	3	1	3			35	
		bird-secs	176	424	600		461	580	390	510	10	288			3,439	
	2019	records		11	5	13	7	6	8	1	1				52	
		bird-secs		1300	261	1067	1408	718	1354	240	25				6,373	
	2021	records	1	15	8	4	8	7	5	2	8				58	
		bird-secs	79	6,293	3,029	300	1,311	1,423	553	343	1,260				14,591	
Sparrowhawk	2016	records									1	2	2	1	6	
		bird-secs									9	86	62	21	178	
	2017	records			2						1		2		5	
		bird-secs			73						32		57		162	
	2018	records	1		1				2	1	1	5	1	1	1	14
		bird-secs	40		47				7	5	80	1435	44	150	5	1,813
2019	records	1	1	2	2			1	1	4	1				13	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2021	bird-secs	10	3	14	468		62	54	188	15				<b>814</b>	
		records		3	2		3	2	1	1	6				<b>18</b>	
		bird-secs		295	343		123	453	69	16	566				<b>1,865</b>	
Kestrel	2016	records										1	1	2	<b>4</b>	
		bird-secs										38	20	345	<b>403</b>	
	2017	records	3	1	1	1	1	2	10	2	4	2		2	<b>29</b>	
		bird-secs	330	201	422	148	75	275	3015	718	574	206		414	<b>6,378</b>	
	2018	records	2	4	3	1	1		2	3	2	1	1		<b>20</b>	
		bird-secs	406	1320	357	60	265		340	420	208	23	230		<b>3,629</b>	
	2019	records	1		1	2			6	2	1				<b>13</b>	
		bird-secs	20		14	139			455	460	500				<b>1,588</b>	
	2021	records	1	2		1	2	1	4	2	4				<b>17</b>	
		bird-secs	510	105		150	240	285	229	245	976				<b>2,740</b>	
	Common Snipe	2016	records										3	7	2	<b>12</b>
			bird-secs										40	77	52	<b>169</b>
2017		records		2	3		1								<b>6</b>	
		bird-secs		35	74		300								<b>409</b>	
2018		records										1	2		<b>3</b>	
		bird-secs										18	23		<b>41</b>	
2019		records	1				2	1							<b>4</b>	
		bird-secs	20				540	16							<b>576</b>	
2021		records													<b>0</b>	
		bird-secs													<b>0</b>	

Based on analysis of all flight activity data within focus area, including data from VPs 1-7 and observations of flights below PCH. Survey period = September 2016 - September 2019 and January – September 2021 (Shaded Cells were months not surveyed). Records = Number of Observations. Bird-secs = Total Duration of Flight(s).



Table 3 All observations within focus area at PCH for target species during vantage point watches

Species	Values	VP1/1a	VP2/2a	VP3/3a	VP4	VP5/5a	VP6	VP7	Totals
Whooper Swan	Observations (All Bands)	4	1	4	4	2	3		<b>18</b>
	Duration in PCH (25-175m, in Seconds)	285	42	144	201	70	129		<b>871</b>
Golden Plover	Observations (All Bands)			5	1	1	3		<b>10</b>
	Duration in PCH (25-175m, in Seconds)			635	0	0	242		<b>877</b>
Hen Harrier	Observations (All Bands)	6	8	9	11	11	14	2	<b>61</b>
	Duration in PCH (25-175m, in Seconds)	193	491	341	167	192	71	25	<b>1,480</b>
Merlin	Observations (All Bands)	2		1		1	8	2	<b>14</b>
	Duration in PCH (25-175m, in Seconds)	30		0		0	105	0	<b>135</b>
Peregrine	Observations (All Bands)	1	2	2	1	1	6		<b>13</b>
	Duration in PCH (25-175m, in Seconds)	70	0	27	58	0	20		<b>175</b>
Golden Eagle	Observations (All Bands)	2	1	1	1		6		<b>11</b>
	Duration in PCH (25-175m, in Seconds)	25	510	80	126		1560		<b>2,301</b>
White-tailed Eagle	Observations (All Bands)					1			<b>1</b>
	Duration in PCH (25-175m, in Seconds)					0			<b>0</b>
Osprey	Observations (All Bands)	1							<b>1</b>
	Duration in PCH (25-175m, in Seconds)	10							<b>10</b>
Redshank	Observations (All Bands)					1			<b>1</b>
	Duration in PCH (25-175m, in Seconds)					0			<b>0</b>
Black-headed Gull	Observations (All Bands)	2	1		2	1			<b>6</b>
	Duration in PCH (25-175m, in Seconds)	81	62		121	26			<b>290</b>
Herring Gull	Observations (All Bands)	1		6	1	1	4		<b>13</b>
	Duration in PCH (25-175m, in Seconds)	300		172	95	0	311		<b>878</b>
Wigeon	Observations (All Bands)		1						<b>1</b>
	Duration in PCH (25-175m, in Seconds)		50						<b>50</b>
Common Gull	Observations (All Bands)		1		1				<b>2</b>
	Duration in PCH (25-175m, in Seconds)		45		130				<b>175</b>
Greylag Goose	Observations (All Bands)	1	2	1	1				<b>5</b>
	Duration in PCH (25-175m, in Seconds)	55	95	63	0				<b>213</b>
Mallard	Observations (All Bands)	2	1		1	3			<b>7</b>
	Duration in PCH (25-175m, in Seconds)	0	0		0	0			<b>0</b>
Grey Heron	Observations (All Bands)	2	3	5	3	3	1		<b>17</b>
	Duration in PCH (25-175m, in Seconds)	175	217	163	113	180	33		<b>881</b>
Curlew	Observations (All Bands)	2					1	1	<b>4</b>



Species	Values	VP1/1a	VP2/2a	VP3/3a	VP4	VP5/5a	VP6	VP7	Totals
	Duration in PCH (25-175m, in Seconds)	124					81	0	<b>205</b>
Woodcock	Observations (All Bands)	1			1	1	1		<b>4</b>
	Duration in PCH (25-175m, in Seconds)	0			5	8	0		<b>13</b>
Buzzard	Observations (All Bands)	34	56	30	28	33	37	13	<b>231</b>
	Duration in PCH (25-175m, in Seconds)	2,817	5,774	2,226	1,679	1,353	4,315	2,563	<b>20,727</b>
Sparrowhawk	Observations (All Bands)	9	11	17	3	7	8	1	<b>56</b>
	Duration in PCH (25-175m, in Seconds)	516	14	222	0	354	104	0	<b>1,210</b>
Kestrel	Observations (All Bands)	13	19	12	10	9	13	7	<b>83</b>
	Duration in PCH (25-175m, in Seconds)	1,472	1,885	300	630	541	1,986	719	<b>7,533</b>
Common Snipe	Observations (All Bands)	3	8	2	3	3	6		<b>25</b>
	Duration in PCH (25-175m, in Seconds)	0	41	0	0	317	547		<b>905</b>

Based on analysis of all flight data at PCH for each target species recorded between September 2016 and September 2019 and January to September 2021 (VP7 was only surveyed between January and September 2021). Any non-flight observations were excluded from data analysis. PCH = (no. of birds x total duration in PCH). PCH (Potential Collision Height) is considered as all flights which occurred above 25m as a worst-case scenario for swept height of the turbine blades.





Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2017	Present = X	X		X	X	X	X	X	X	X	X	X	X
	2018	Present = X	X	X		X	X			X	X	X		
	2019	Present = X	X	X	X		X	X	X					
Blackcap	2016	Present = X												
	2017	Present = X												
	2018	Present = X												
	2019	Present = X					X							
Blue Tit	2016	Present = X												
	2017	Present = X		X	X				X					X
	2018	Present = X			X								X	
	2019	Present = X												
Bullfinch	2016	Present = X												
	2017	Present = X	X	X	X									
	2018	Present = X												X
	2019	Present = X	X	X	X					X				
Carrion Crow	2016	Present = X											X	
	2017	Present = X										X		
	2018	Present = X												
	2019	Present = X												
Chaffinch	2016	Present = X												
	2017	Present = X		X	X	X	X	X	X	X	X	X	X	X
	2018	Present = X		X	X	X	X	X	X	X	X		X	X
	2019	Present = X	X	X	X	X	X	X	X	X	X			
Chiffchaff	2016	Present = X												
	2017	Present = X												X
	2018	Present = X	X											
	2019	Present = X												
Coal Tit	2016	Present = X												
	2017	Present = X	X		X	X		X	X					X
	2018	Present = X	X			X	X		X				X	
	2019	Present = X	X	X	X	X			X	X	X			
Crossbill	2016	Present = X												
	2017	Present = X		X										
	2018	Present = X	X	X			X			X				X













Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	2019	Present = X	X	X	X	X	X	X	X	X	X			
Wren	2016	Present = X												
	2017	Present = X	X	X	X	X	X	X	X	X	X	X	X	X
	2018	Present = X	X	X	X	X	X	X	X	X	X	X	X	X
	2019	Present = X	X	X	X	X	X		X	X	X			
Based on analysis of all flight activity data within focus area, including data from VPs 1-6. Survey period = September 2016 to September 2019 (Shaded Cells were months not surveyed). Non-target species were not recorded during surveys between January and September 2021.														

Table 5 Monthly distribution of observations of target Species during Breeding Walkover Surveys

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Golden Plover	2017	No. of observations	1	1			2
		No. of individuals	21	6			27
	2018	No. of observations					0
		No. of individuals					0
	2021	No. of observations					0
		No. of individuals					0
Hen Harrier	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations		1			1
		No. of individuals		1			1
	2021	No. of observations					0
		No. of individuals					0
Peregrine	2017	No. of observations	1				1
		No. of individuals	1				1
	2018	No. of observations					0
		No. of individuals					0
	2021	No. of observations					0
		No. of individuals					0
Mallard	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations			1		1
		No. of individuals			2		2
	2021	No. of observations					0
		No. of individuals					0
Grey Heron	2017	No. of observations				1	1
		No. of individuals				2	2
	2018	No. of observations	1		1		2
		No. of individuals	1		1		2
	2021	No. of observations					0
		No. of individuals					0
Curlew	2017	No. of observations		1			1
		No. of individuals		1			1



Species	Year	Standardised	Apr	May	Jun	Jul	Totals
	2018	No. of observations			1		1
		No. of individuals			1		1
	2021	No. of observations					0
		No. of individuals					0
Buzzard	2017	No. of observations	14	4	5	6	29
		No. of individuals	17	5	6	8	36
	2018	No. of observations	6	3	3	5	17
		No. of individuals	8	3	4	7	22
	2021	No. of observations	1		1	1	3
		No. of individuals	1		1	1	3
Sparrowhawk	2017	No. of observations	5	3	2	2	12
		No. of individuals	5	3	2	2	12
	2018	No. of observations	3		4	1	8
		No. of individuals	3		4	1	8
	2021	No. of observations					0
		No. of individuals					0
Kestrel	2017	No. of observations				1	1
		No. of individuals				1	1
	2018	No. of observations	1		2	1	4
		No. of individuals	1		2	1	4
	2021	No. of observations		1	1	1	3
		No. of individuals		1	1	1	3
Common Snipe	2017	No. of observations	6	5	5	2	18
		No. of individuals	6	5	5	2	18
	2018	No. of observations			5		5
		No. of individuals			5		5
	2021	No. of observations	7	5	4	1	17
		No. of individuals	7	5	4	1	17

2017, 2018 and 2021 surveys consisted of Adapted Brown & Shepard survey methodology. As per the recommended survey approach, surveys were undertaken between April and July in all years.



Table 6 Monthly distribution of observations of non-target Species during Breeding Walkover Surveys

Species	Year	Standardised	Apr	May	Jun	Jul
Lesser Black-backed Gull	2017	Present = X				
	2018	Present = X	X		X	X
Greater Black-backed Gull	2017	Present = X				
	2018	Present = X		X		
Grey Wagtail	2017	Present = X			X	
	2018	Present = X				
Meadow Pipit	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Whinchat	2017	Present = X		X		
	2018	Present = X				
Yellowhammer	2017	Present = X	X	X	X	X
	2018	Present = X				
Blackbird	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Blue Tit	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Bullfinch	2017	Present = X		X	X	X
	2018	Present = X		X		
Chaffinch	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Chiffchaff	2017	Present = X		X	X	X
	2018	Present = X		X		
Coal Tit	2017	Present = X	X		X	
	2018	Present = X				
Collared Dove	2017	Present = X			X	
	2018	Present = X				
Crossbill	2017	Present = X				
	2018	Present = X		X		
Cuckoo	2017	Present = X		X		X
	2018	Present = X		X		
Dunnock	2017	Present = X		X		
	2018	Present = X				
Goldcrest	2017	Present = X				X



Species	Year	Standardised	Apr	May	Jun	Jul
	2018	Present = X		X		
Goldfinch	2017	Present = X	X	X	X	X
	2018	Present = X				
Great Tit	2017	Present = X	X	X	X	X
	2018	Present = X				
Hooded Crow	2017	Present = X	X	X	X	X
	2018	Present = X		X		
House Sparrow	2017	Present = X		X		
	2018	Present = X				
Jay	2017	Present = X	X	X	X	X
	2018	Present = X				
Lesser Redpoll	2017	Present = X				
	2018	Present = X		X		
Magpie	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Mistle Thrush	2017	Present = X	X		X	
	2018	Present = X		X		
Pied Wagtail	2017	Present = X	X	X	X	X
	2018	Present = X				
Raven	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Reed Bunting	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Robin	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Rook	2017	Present = X			X	
	2018	Present = X		X		
Sedge Warbler	2017	Present = X				
	2018	Present = X		X		
Siskin	2017	Present = X				X
	2018	Present = X		X		
Skylark	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Song Thrush	2017	Present = X	X	X	X	X





Species	Year	Standardised	Apr	May	Jun	Jul
	2018	Present = X		X		
Starling	2017	Present = X			X	X
	2018	Present = X				
Stonechat	2017	Present = X			X	
	2018	Present = X		X		
Swallow	2017	Present = X			X	X
	2018	Present = X		X		
Tree Creeper	2017	Present = X	X	X	X	
	2018	Present = X				
Wheatear	2017	Present = X	X	X	X	
	2018	Present = X				
Willow Warbler	2017	Present = X	X		X	
	2018	Present = X		X		
Woodpigeon	2017	Present = X	X	X	X	X
	2018	Present = X		X		
Wren	2017	Present = X	X	X	X	X
	2018	Present = X		X		
<p>2017, 2018 &amp; 2021 surveys consisted of Adapted Brown &amp; Shepard survey methodology. As per the recommended survey approach, surveys were undertaken between April and July in all years. Note: non-target species were not recorded on surveys in April, June &amp; July 2018 or during the 2021 breeding season surveys.</p>						

Table 7 Monthly distribution of observations for target species during Breeding Raptor Surveys.

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Hen Harrier	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations		3			3
		No. of individuals		3			3
	2019	No. of observations	2	1	2		5
		No. of individuals	2	1	2		5
2021	No. of observations			1		1	
	No. of individuals			1		1	
Merlin	2017	No. of observations		1		1	2
		No. of individuals		1		1	2
	2018	No. of observations	2				2
		No. of individuals	2				2
	2019	No. of observations	1	1			2
		No. of individuals	1	1			2
2021	No. of observations	1	1		2	4	
	No. of individuals	1	1		5	7	
Peregrine	2017	No. of observations		1	1		2
		No. of individuals		1	1		2
	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations				2	2
		No. of individuals				2	2
2021	No. of observations		1		1	2	
	No. of individuals		1		1	2	
Golden Eagle	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations				1	1
		No. of individuals				1	1
2021	No. of observations						
	No. of individuals						
Hobby	2017	No. of observations					0



Species	Year	Standardised	Apr	May	Jun	Jul	Totals
	2018	No. of individuals					0
		No. of observations					0
	2019	No. of individuals				1	1
		No. of observations				1	1
	2021	No. of individuals					
		No. of observations					
Buzzard	2017	No. of observations	10	7	7	7	31
		No. of individuals	13	9	8	8	38
	2018	No. of observations	5	13	4	4	26
		No. of individuals	8	13	5	4	30
	2019	No. of observations	14	5	5	6	30
		No. of individuals	22	5	5	6	38
2021	No. of observations	6	12	8	5	31	
	No. of individuals	7	16	10	5	38	
Sparrowhawk	2017	No. of observations	2	1	2	1	6
		No. of individuals	2	1	2	2	7
	2018	No. of observations		1		3	4
		No. of individuals		1		3	4
	2019	No. of observations	2	2		4	8
		No. of individuals	2	2		5	9
2021	No. of observations	6	1	2	1	10	
	No. of individuals	6	1	2	1	10	
Kestrel	2017	No. of observations	3	2	1	2	8
		No. of individuals	3	2	1	2	8
	2018	No. of observations	4	2	1	2	9
		No. of individuals	5	2	1	2	10
	2019	No. of observations	1	2		1	4
		No. of individuals	1	3		1	5
2021	No. of observations	1	1	2	3	7	
	No. of individuals	1	1	2	3	7	



Table 8 Monthly distribution of observations of target Species during Winter Walkover Surveys

Species	Year	Standardised	Jan	Feb	Mar	Oct	Nov	Dec	Totals
Golden Plover	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations							0
		No. of individuals							0
	2018	No. of observations						1	1
		No. of individuals						6	6
2019	No. of observations								0
	No. of individuals								0
Hen Harrier	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations							0
		No. of individuals							0
	2018	No. of observations			1			1	2
		No. of individuals			1			1	2
2019	No. of observations								0
	No. of individuals								0
Merlin	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations							0
		No. of individuals							0
	2018	No. of observations							0
		No. of individuals							0
2019	No. of observations		1						1
	No. of individuals		1						1
Black-headed Gull	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations							0
		No. of individuals							0
	2018	No. of observations						1	1
		No. of individuals						8	8
2019	No. of observations								0
	No. of individuals								0
Wigeon	2016	No. of observations						1	1



Species	Year	Standardised	Jan	Feb	Mar	Oct	Nov	Dec	Totals
		No. of individuals						6	6
		No. of observations							0
	2017	No. of individuals							0
		No. of observations							1
	2018	No. of individuals				15			15
		No. of observations							0
2019	No. of individuals							0	
	No. of observations							0	
Common Gull	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations	1						1
		No. of individuals	11						11
	2018	No. of observations							0
		No. of individuals							0
2019	No. of observations							0	
	No. of individuals							0	
Mallard	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations				1			1
		No. of individuals				2			2
	2018	No. of observations							0
		No. of individuals							0
2019	No. of observations							0	
	No. of individuals							0	
Grey Heron	2016	No. of observations				1		2	3
		No. of individuals				1		2	3
	2017	No. of observations				1			1
		No. of individuals				1			1
	2018	No. of observations							0
		No. of individuals							0
2019	No. of observations							0	
	No. of individuals							0	
Red Grouse	2016	No. of observations				1			1
		No. of individuals				1			1
	2017	No. of observations							0



Species	Year	Standardised	Jan	Feb	Mar	Oct	Nov	Dec	Totals
	2018	No. of individuals							0
		No. of observations							0
		No. of individuals							0
	2019	No. of observations							0
		No. of individuals							0
Woodcock	2016	No. of observations							0
		No. of individuals							0
	2017	No. of observations	1						1
		No. of individuals	1						1
	2018	No. of observations							0
		No. of individuals							0
2019	No. of observations							0	
	No. of individuals							0	
Buzzard	2016	No. of observations				2		3	5
		No. of individuals				3		3	6
	2017	No. of observations	1		2	1		4	8
		No. of individuals	1		2	1		4	8
	2018	No. of observations	5					1	6
		No. of individuals	7					1	8
2019	No. of observations	1	4					5	
	No. of individuals	1	5					6	
Sparrowhawk	2016	No. of observations						1	1
		No. of individuals						1	1
	2017	No. of observations	1		1	1		2	5
		No. of individuals	1		1	1		2	5
	2018	No. of observations	1						1
		No. of individuals	1						1
2019	No. of observations							0	
	No. of individuals							0	
Kestrel	2016	No. of observations				1		1	2
		No. of individuals				1		1	2
	2017	No. of observations			1	2		1	4
		No. of individuals			1	2		1	4
2018	No. of observations	1						1	



Species	Year	Standardised	Jan	Feb	Mar	Oct	Nov	Dec	Totals
		No. of individuals	1						1
		No. of observations	1						1
		No. of individuals	1						1
Common Snipe	2016	No. of observations				3		1	4
		No. of individuals				3		1	4
	2017	No. of observations	2		2	1		2	7
		No. of individuals	2		2	1		2	7
	2018	No. of observations	2		2	4		1	9
		No. of individuals	2		2	4		2	10
	2019	No. of observations		1					1
		No. of individuals		1					1

Shaded cells are those months were no surveys were undertaken. Surveys between the period of October 2016 and February 2019 comprised of walked transects within the development site and within 500m of the site boundary.



*Table 9 Monthly distribution of observations for target species during Golden Eagle Surveys.*

Species	Year	Standardised	Mar	Totals
Golden Eagle	2017	No. of observations	2	<b>2</b>
		No. of individuals	4	<b>4</b>



Table 10 Monthly distribution of observations for target species during Hen Harrier Roost Surveys.

Species	Year	Standardised	Jan	Feb	Mar	Oct	Nov	Dec	Totals	
Hen Harrier	2016	No. of observations				2	2	2	6	
		No. of individuals				2	2	2	6	
	2017	No. of observations	2	3	1		2	1	9	
		No. of individuals	2	3	1		2	1	9	
	2018	No. of observations	1		1	1			3	
		No. of individuals	1		1	1			3	
	2019	No. of observations		1	1				2	
		No. of individuals		1	1				2	
	2020	No. of observations							1	1
		No. of individuals							1	1
	2021	No. of observations	2	1	2				5	
		No. of individuals	2	1	2				5	



Table 11 Monthly distribution of observations for target species during Migratory Vantage Point Surveys.

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Merlin	2016	No. of observations														0
		No. of individuals														0
	2017	No. of observations	1		1										2	
		No. of individuals	1		1										2	
Woodcock	2016	No. of observations														0
		No. of individuals													0	
	2017	No. of observations		1											1	
		No. of individuals		1											1	
Buzzard	2016	No. of observations														0
		No. of individuals													0	
	2017	No. of observations	2	1											3	
		No. of individuals	2	1											3	
Kestrel	2016	No. of observations								1						1
		No. of individuals								1					1	
	2017	No. of observations													0	
		No. of individuals													0	

Table 12 Monthly distribution of observations for all species during Wildfowl Distribution Surveys

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Barnacle Goose	2016	No. of observations														0
		No. of individuals														0
	2017	No. of observations		1								1				2
		No. of individuals		4								1				5
	2018	No. of observations													0	
		No. of individuals													0	
2019	No. of observations													0		
	No. of individuals													0		
Bar-tailed Godwit	2016	No. of observations								2	1	1			4	
		No. of individuals								36	5	5			46	
	2017	No. of observations									1	3			4	
		No. of individuals									38	324			362	
	2018	No. of observations													0	
		No. of individuals													0	
2019	No. of observations													0		
	No. of individuals													0		
Black Guillemot	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations										1			1	
		No. of individuals										1			1	
	2018	No. of observations		1		2	1								4	
		No. of individuals		1		2	1								4	
2019	No. of observations													0		
	No. of individuals													0		
Black Swan	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations													0	
		No. of individuals													0	
	2018	No. of observations					2								2	
		No. of individuals					3								3	
2019	No. of observations													0		
	No. of individuals													0		
Black-headed Gull	2016	No. of observations								11	23		2	5	41	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
		No. of individuals								306	436		15	328	<b>1,085</b>
	2017	No. of observations		12	9					10	12				<b>43</b>
		No. of individuals		396	368					1147	755				<b>2,666</b>
	2018	No. of observations		15			6	6							<b>27</b>
		No. of individuals		1256			2095	1976							<b>5,327</b>
	2019	No. of observations													<b>0</b>
No. of individuals														<b>0</b>	
Black-tailed Godwit	2016	No. of observations								1					<b>1</b>
		No. of individuals								7					<b>7</b>
	2017	No. of observations			5					2	7				<b>14</b>
		No. of individuals			632					288	218				<b>1,138</b>
	2018	No. of observations				1	1								<b>2</b>
		No. of individuals				2	5								<b>7</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Brent Goose	2016	No. of observations									1	1	1	2	<b>5</b>
		No. of individuals									116	116	11	30	<b>273</b>
	2017	No. of observations		6	4	2					2				<b>14</b>
		No. of individuals		173	87	25					40				<b>325</b>
	2018	No. of observations		8	1	3									<b>12</b>
		No. of individuals		339	21	71									<b>431</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Canada Goose	2016	No. of observations												2	<b>2</b>
		No. of individuals												313	<b>313</b>
	2017	No. of observations								2	1				<b>3</b>
		No. of individuals								510	205				<b>715</b>
	2018	No. of observations				1									<b>1</b>
		No. of individuals				8									<b>8</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Common Gull	2016	No. of observations								7	1	1	2	1	<b>12</b>
		No. of individuals								91	13	13	16	2	<b>135</b>
	2017	No. of observations		4	6					13	15				<b>38</b>







Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
		No. of individuals		1											1	
Dunlin	2016	No. of observations												1	1	
		No. of individuals												18	18	
	2017	No. of observations		1	2					3	4					10
		No. of individuals		120	231					66	10					427
	2018	No. of observations				1	1									2
		No. of individuals				2	35									37
	2019	No. of observations														0
		No. of individuals														0
Eider	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations		3	4					1	4					12
		No. of individuals		12	15					17	548					592
	2018	No. of observations		5	1											6
		No. of individuals		213	6											219
	2019	No. of observations														0
		No. of individuals														0
Gadwall	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations												1	1	
		No. of individuals												2	2	
	2018	No. of observations													0	
		No. of individuals													0	
	2019	No. of observations													0	
		No. of individuals													0	
Gannet	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations													0	
		No. of individuals													0	
	2018	No. of observations				1									1	
		No. of individuals				1									1	
	2019	No. of observations													0	
		No. of individuals													0	
Golden Plover	2016	No. of observations										1	3	4		



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
		No. of individuals											135	132	<b>267</b>
	2017	No. of observations			3							1			<b>4</b>
		No. of individuals			325							35			<b>360</b>
	2018	No. of observations		1											<b>1</b>
		No. of individuals		500											<b>500</b>
	2019	No. of observations													<b>0</b>
No. of individuals														<b>0</b>	
Goldeneye	2016	No. of observations												1	<b>1</b>
		No. of individuals												6	<b>6</b>
	2017	No. of observations		1											<b>1</b>
		No. of individuals		2											<b>2</b>
	2018	No. of observations		2											<b>2</b>
		No. of individuals		60											<b>60</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Goosander	2016	No. of observations													<b>0</b>
		No. of individuals													<b>0</b>
	2017	No. of observations												1	<b>1</b>
		No. of individuals												1	<b>1</b>
	2018	No. of observations													<b>0</b>
		No. of individuals													<b>0</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Great Black-backed Gull	2016	No. of observations								2	9	25		1	<b>37</b>
		No. of individuals								3	20	680		2	<b>705</b>
	2017	No. of observations		7	3						6	8			<b>24</b>
		No. of individuals		16	14						13	29			<b>72</b>
	2018	No. of observations		5		7	5								<b>17</b>
		No. of individuals		27		47	22								<b>96</b>
2019	No. of observations													<b>0</b>	
	No. of individuals													<b>0</b>	
Great Crested Grebe	2016	No. of observations									3	1			<b>4</b>
		No. of individuals									4	2			<b>6</b>
	2017	No. of observations			3							4			<b>7</b>











Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2017	No. of individuals													0	
		No. of observations								1	2					3
	2018	No. of individuals									6	4				10
		No. of observations		1				1								2
	2019	No. of individuals		2				25								27
		No. of observations		1												1
Mute Swan	2016	No. of observations								1	2	2		5	10	
		No. of individuals								8	19	8		19	54	
	2017	No. of observations	2	5	4	2	3			3	5	1	1	1	27	
		No. of individuals	2	30	33	3	5			221	362	1	1	1	659	
	2018	No. of observations	2	2	3	3	4								14	
		No. of individuals	4	162	6	210	297								679	
	2019	No. of observations													0	
		No. of individuals													0	
	Oystercatcher	2016	No. of observations								12	13		2	11	38
			No. of individuals								88	126		19	33	266
2017		No. of observations		23	19					8	7				57	
		No. of individuals		752	345					75	127				1,299	
2018		No. of observations		10		3	4								17	
		No. of individuals		133		36	23								192	
2019	No. of observations													0		
	No. of individuals													0		
Pink-footed Goose	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations	2			1							1		4	
		No. of individuals	5			60							2		67	
	2018	No. of observations													0	
		No. of individuals													0	
2019	No. of observations													0		
	No. of individuals													0		
Pochard	2016	No. of observations													0	
		No. of individuals													0	
	2017	No. of observations									2				2	







Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
		No. of individuals													0
Shelduck	2016	No. of observations										2		2	4
		No. of individuals										5		4	9
	2017	No. of observations	3	1	3	1					1		2	3	14
		No. of individuals	5	2	15	2					1		16	8	49
	2018	No. of observations	1	1	1	3	3								9
		No. of individuals	2	20	2	28	31								83
	2019	No. of observations													0
		No. of individuals													0
Shoveler	2016	No. of observations													0
		No. of individuals													0
	2017	No. of observations										1			1
		No. of individuals										4			4
	2018	No. of observations				1	1								2
		No. of individuals				2	4								6
	2019	No. of observations													0
		No. of individuals													0
Taiga Bean Goose	2016	No. of observations													0
		No. of individuals													0
	2017	No. of observations													0
		No. of individuals													0
	2018	No. of observations				1	1								2
		No. of individuals				4	4								8
	2019	No. of observations													0
		No. of individuals													0
Teal	2016	No. of observations									2	1	1	4	8
		No. of individuals									19	9	83	267	378
	2017	No. of observations	1	6	6						5				18
		No. of individuals	14	501	163						266				944
	2018	No. of observations		6		4	3							1	14
		No. of individuals		625		26	19							2	672
	2019	No. of observations		1											1
		No. of individuals		5											5
Tufted Duck	2016	No. of observations									1	1		2	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
	2017	No. of individuals									3	3				6
		No. of observations		1	2					2	3	1				9
	2018	No. of individuals		12	16						84	370	3			485
		No. of observations	1	2	1	1	2								7	
	2019	No. of individuals	21	72	6	220	72								391	
		No. of observations														
Whimbrel	2016	No. of observations									1					1
		No. of individuals									1					1
	2017	No. of observations														0
		No. of individuals														0
	2018	No. of observations				2	1								3	
		No. of individuals				32	4								36	
2019	No. of observations															0
	No. of individuals															0
Whooper Swan	2016	No. of observations										1		9		10
		No. of individuals										23		995		1,018
	2017	No. of observations	8	10	10	7	3				1	6	9	7		61
		No. of individuals	930	867	683	1120	18								5,700	
	2018	No. of observations	7	4	10	2	3								26	
		No. of individuals	512	403	345	230	33								1,523	
2019	No. of observations															0
	No. of individuals															0
Wigeon	2016	No. of observations									1	2		4		7
		No. of individuals									11	22		126		159
	2017	No. of observations	2	5	5	2					1	6	1	2	1	25
		No. of individuals	16	242	345	5								945		
	2018	No. of observations	2	5		1	2								10	
		No. of individuals	46	599		26	28								699	
2019	No. of observations															0
	No. of individuals															0