

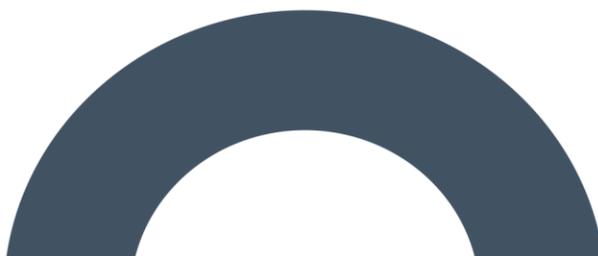


APPENDIX 7-3

SUMMARY TABLES

Appendix 7-3 – Summary Tables

Curraglass Renewable Energy Development





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1.

APPENDIX 7-3 (SUMMARY TABLES)

Table 1 Vantage Point Survey Effort

Survey Season	Months	Minimum Effort per VP
2018 Breeding Season (3 VPs)	Apr - Sep	36 hours/VP
2018/2019 Non-Breeding Season (3 VPs)	Oct - Mar	36 hours/VP
2019 Breeding Season (3 VPs)	Apr - Sep	36 hours/VP
2019/2020 Non-Breeding Season (3 VPs)	Oct - Mar	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	
Golden Plover	2018	records												3	3	
		bird-secs													65	65
	2019	records	1													1
		bird-secs	46													46
	2020	records														0
		bird-secs														0
Peregrine	2018	records														0
		bird-secs														0
	2019	records												1		1
		bird-secs												52		52
	2020	records														0
		bird-secs														0
White-tailed Eagle	2018	records					1									1
		bird-secs					310									310
	2019	records		1												1
		bird-secs		27												27
	2020	records														0
		bird-secs														0
Chough	2018	records														0
		bird-secs														0
	2019	records						1								1
		bird-secs						63								63
	2020	records														0
		bird-secs														0
Herring Gull	2018	records														0
		bird-secs														0
	2019	records					2	9	2							13
		bird-secs					85	983	102							1,170



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
	2020	records													0
		bird-secs													
Red Grouse	2018	records												4	4
		bird-secs												31	31
	2019	records	1								1				2
		bird-secs	12								36				48
	2020	records													0
		bird-secs													0
Buzzard	2018	records								1					1
		bird-secs								70					70
	2019	records		1	1	1						1			4
		bird-secs		264	374	256						110			1,004
	2020	records													0
		bird-secs													0
Sparrowhawk	2018	records				1	1	3	3				1	1	10
		bird-secs				125	52	168	97				17	12	471
	2019	records		1	1	1		1		1		1		2	8
		bird-secs		186	20	25		22		35		48		42	378
	2020	records	2	2	1										5
		bird-secs	58	60	34										152
Kestrel	2018	records				2		2	3	3	2	3	3	2	20
		bird-secs				115		255	337	87	175	270	90	87	1,416
	2019	records	2	3	1	5		1	2			3	2	1	20
		bird-secs	77	464	218	496		58	193			153	125	46	1,830
	2020	records	3	5											8
		bird-secs	124	242											366
Common Snipe	2018	records						1					2		3
		bird-secs							40					56	96



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
	2019	records	2												2
		bird-secs	50												50
	2020	records													0
		bird-secs													0
Based on analysis of all flight activity data within focus area, including data from VPs 1-3 and observations of flights below PCH. Survey period - April 2018 - March 2020 (Shaded Cells were months not surveyed). Records = No. of Observations. Bird-secs = Total Duration of Flight(s).															

Table 3 All observations within potential risk area for target species during vantage point watches

Species	Values	VP1	VP2	VP3	Totals
Golden Plover	Observations (All Bands)	4			4
	Duration in PCH (Band 3 and/or 4, in Seconds)	690			690
Peregrine	Observations (All Bands)			1	1
	Duration in PCH (Band 3 and/or 4, in Seconds)			52	52
White-tailed Eagle	Observations (All Bands)	1	1		2
	Duration in PCH (Band 3 and/or 4, in Seconds)	310	27		337
Chough	Observations (All Bands)			1	1
	Duration in PCH (Band 3 and/or 4, in Seconds)			0	0
Herring Gull	Observations (All Bands)		4	9	13
	Duration in PCH (Band 3 and/or 4, in Seconds)		0	4763	4,763
Red Grouse	Observations (All Bands)	5		1	6
	Duration in PCH (Band 3 and/or 4, in Seconds)	0		0	0
Buzzard	Observations (All Bands)	1		4	5
	Duration in PCH (Band 3 and/or 4, in Seconds)	240		566	806
Sparrowhawk	Observations (All Bands)	5	10	8	23
	Duration in PCH (Band 3 and/or 4, in Seconds)	96	205	215	516
Kestrel	Observations (All Bands)	11	14	23	48
	Duration in PCH (Band 3 and/or 4, in Seconds)	49	76	103	228
Common Snipe	Observations (All Bands)	1	1	3	5
	Duration in PCH (Band 3 and/or 4, in Seconds)	0	0	31	31

Based on analysis of all flight data at PCH for each target species recorded between April 2018 and March 2020. 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.



Table 4 Summary of Non-Target Species observations during Vantage Point Surveys

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Grey Wagtail	2018	Present = X					X			X	X			
	2019	Present = X												
	2020	Present = X												
Pied Wagtail	2018	Present = X					X					X		
	2019	Present = X						X	X					
	2020	Present = X	X	X										
Meadow Pipit	2018	Present = X					X	X		X	X	X	X	X
	2019	Present = X	X	X	X	X		X	X	X	X		X	
	2020	Present = X		X										
Rock Pipit	2018	Present = X						X						
	2019	Present = X												
	2020	Present = X												
Skylark	2018	Present = X					X	X			X			
	2019	Present = X				X				X				
	2020	Present = X												
Cuckoo	2018	Present = X				X	X	X						
	2019	Present = X						X						
	2020	Present = X												
Dipper	2018	Present = X					X							
	2019	Present = X												
	2020	Present = X												
Swift	2018	Present = X												
	2019	Present = X						X						
	2020	Present = X												
House Martin	2018	Present = X						X						
	2019	Present = X												
	2020	Present = X												
Barn Swallow	2018	Present = X						X	X	X				
	2019	Present = X						X	X					
	2020	Present = X												



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Fieldfare	2018	Present = X											X	X
	2019	Present = X			X									X
	2020	Present = X												
Redwing	2018	Present = X											X	X
	2019	Present = X	X										X	X
	2020	Present = X												
Mistle Thrush	2018	Present = X					X	X	X		X	X	X	X
	2019	Present = X	X	X	X					X			X	X
	2020	Present = X	X	X										
Song Thrush	2018	Present = X						X	X					
	2019	Present = X	X							X				
	2020	Present = X												
Blackbird	2018	Present = X					X	X					X	
	2019	Present = X								X				
	2020	Present = X												
Raven	2018	Present = X					X		X	X	X	X	X	X
	2019	Present = X	X	X	X	X		X	X	X	X		X	X
	2020	Present = X	X	X										
Rook	2018	Present = X										X	X	X
	2019	Present = X	X					X						X
	2020	Present = X	X	X										
Hooded Crow	2018	Present = X					X	X	X		X	X	X	X
	2019	Present = X	X	X	X	X		X	X	X	X		X	X
	2020	Present = X	X											
Jackdaw	2018	Present = X										X		
	2019	Present = X						X					X	
	2020	Present = X		X										
Jay	2018	Present = X												
	2019	Present = X				X		X					X	
	2020	Present = X												



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Magpie	2018	Present = X					X	X	X				X	X
	2019	Present = X	X	X		X				X	X		X	
	2020	Present = X												
Pheasant	2018	Present = X					X	X	X		X	X	X	X
	2019	Present = X	X	X	X	X			X		X		X	
	2020	Present = X		X										
Wood Pigeon	2018	Present = X					X		X		X		X	X
	2019	Present = X	X	X		X		X	X	X			X	X
	2020	Present = X	X	X										
Willow Warbler	2018	Present = X					X	X						
	2019	Present = X				X		X						
	2020	Present = X												
Reed Bunting	2018	Present = X												
	2019	Present = X	X											
	2020	Present = X	X											
Coal Tit	2018	Present = X						X						
	2019	Present = X												X
	2020	Present = X												
Great Tit	2018	Present = X												
	2019	Present = X						X	X				X	
	2020	Present = X	X	X										
Blue Tit	2018	Present = X												
	2019	Present = X							X				X	
	2020	Present = X												
Blackcap	2018	Present = X						X						
	2019	Present = X												
	2020	Present = X												
Dunnock	2018	Present = X												
	2019	Present = X							X	X				X
	2020	Present = X	X	X										



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Northern Wheatear	2018	Present = X												
	2019	Present = X				X								
	2020	Present = X												
Stonechat	2018	Present = X						X					X	
	2019	Present = X								X				X
	2020	Present = X												
Starling	2018	Present = X									X	X		
	2019	Present = X	X		X					X				
	2020	Present = X												
Siskin	2018	Present = X							X		X	X		
	2019	Present = X						X	X				X	
	2020	Present = X												
Lesser Redpoll	2018	Present = X							X					
	2019	Present = X		X	X	X				X				
	2020	Present = X												
Goldcrest	2018	Present = X												
	2019	Present = X							X					
	2020	Present = X												
Chiffchaff	2018	Present = X						X						
	2019	Present = X				X								
	2020	Present = X												
Goldfinch	2018	Present = X							X					
	2019	Present = X											X	
	2020	Present = X												
Bullfinch	2018	Present = X					X	X						
	2019	Present = X												X
	2020	Present = X												
Chaffinch	2018	Present = X					X	X	X	X	X	X	X	X
	2019	Present = X	X	X	X	X		X	X	X	X		X	X
	2020	Present = X	X	X										



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Crossbill	2018	Present = X					X	X	X					
	2019	Present = X												
	2020	Present = X												
Robin	2018	Present = X						X	X					
	2019	Present = X								X	X			
	2020	Present = X												
Wren	2018	Present = X						X		X	X		X	
	2019	Present = X		X	X	X				X	X			
	2020	Present = X												
Based on analysis of all flight activity data within focus area, including data from VPs 1-3. Survey period – April 2018 - March 2020 (Shaded Cells were months not surveyed).														

Table 5 Target Species observations during Breeding Bird Surveys

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Hen Harrier	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations	1				1
		No. of individuals	1				1
Chough	2018	No. of observations	1				1
		No. of individuals	1				1
	2019	No. of observations					0
		No. of individuals					0
Herring Gull	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations		1	2	1	4
		No. of individuals		12	5	2	19
Red Grouse	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations	1				1
		No. of individuals	1				1
Kestrel	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations		1	2	1	4
		No. of individuals		1	2	5	8
As per Adapted Brown & Shepard Survey methodology, surveys were undertaken between April and July in 2018 and in 2019, to ensure all species, including late breeders were recorded.							

Table 6 Non-Target species observations during Breeding Bird Surveys

Species	Year	Standardised	Apr	May	Jun	Jul
Grey Wagtail	2018	Present = X	X	X	X	
	2019	Present = X	X	X		
Meadow Pipit	2018	Present = X	X	X	X	X
	2019	Present = X	X			
Cuckoo	2018	Present = X	X			
	2019	Present = X				
Raven	2018	Present = X	X			
	2019	Present = X	X			
Hooded Crow	2018	Present = X	X			
	2019	Present = X				
Magpie	2018	Present = X	X			
	2019	Present = X				
Pheasant	2018	Present = X	X			
	2019	Present = X				
Wood Pigeon	2018	Present = X	X			
	2019	Present = X				
Willow Warbler	2018	Present = X	X			
	2019	Present = X	X			
Dunnock	2018	Present = X	X			
	2019	Present = X				
Skylark	2018	Present = X	X			
	2019	Present = X	X			
Stonechat	2018	Present = X				
	2019	Present = X	X			



Species	Year	Standardised	Apr	May	Jun	Jul
Lesser Redpoll	2018	Present = X	X			
	2019	Present = X				
Goldcrest	2018	Present = X	X			
	2019	Present = X				
Chiffchaff	2018	Present = X				
	2019	Present = X	X			
Chaffinch	2018	Present = X				
	2019	Present = X	X			
Robin	2018	Present = X	X			
	2019	Present = X				
Wren	2018	Present = X				
	2019	Present = X	X			
As per Adapted Brown & Shepard Survey methodology, surveys were undertaken between April and July in 2018 and 2019, to include late breeders counts.						

Table 7 Summary of monthly abundance during Breeding Raptor Surveys

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Peregrine	2018	No. of observations		2			2
		No. of individuals		2			2
	2019	No. of observations					0
		No. of individuals					0
Buzzard	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations		1		2	3
		No. of individuals		?		4	4
Sparrowhawk	2018	No. of observations	1		1		2
		No. of individuals	1		2		3
	2019	No. of observations					0
		No. of individuals					0
Kestrel	2018	No. of observations	2	4		1	7
		No. of individuals	2	4		1	7
	2019	No. of observations	1	2	3		6
		No. of individuals	1	2	3		6

Table 8 Summary of monthly abundance during Winter Transect Surveys

Species	Year	Standardised	Jan	Mar	Oct	Dec	Totals
Peregrine	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations				1	1
		No. of individuals				1	1
	2020	No. of observations					0
		No. of individuals					0
Kestrel	2018	No. of observations				1	1
		No. of individuals				1	1
	2019	No. of observations	1				1
		No. of individuals	1				1
	2020	No. of observations	2	1			2
		No. of individuals	2	1			2
Red Grouse	2018	No. of observations				2	2
		No. of individuals				2	2
	2019	No. of observations	1				1
		No. of individuals	2				2
	2020	No. of observations					0
		No. of individuals					0



Species	Year	Standardised	Jan	Mar	Oct	Dec	Totals
Common Snipe	2018	No. of observations			3	1	4
		No. of individuals			4	2	6
	2019	No. of observations	2	2			4
		No. of individuals	3	4			7
	2020	No. of observations					0
		No. of individuals					0
Mallard	2018	No. of observations				1	1
		No. of individuals				2	2
	2019	No. of observations	1	1			2
		No. of individuals	2	2			4
	2020	No. of observations					0
		No. of individuals					0

Surveys were undertaken between the period of October 2018 - March 2019 and October 2019 - March 2020. Surveys comprised of walked transects within the development site and 500m of same. Shaded cells are months were no surveys were undertaken.



Table 9 Summary of monthly abundance during Waterfowl Surveys

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals
Kingfisher	2018	No. of observations											0
		No. of individuals											0
	2019	No. of observations											0
		No. of individuals											0
	2020	No. of observations		1								1	
		No. of individuals		2								2	
Lesser Black-backed Gull	2018	No. of observations											0
		No. of individuals											0
	2019	No. of observations							2				2
		No. of individuals							16				16
	2020	No. of observations										0	
		No. of individuals										0	
Great Black-backed Gull	2018	No. of observations											0
		No. of individuals											0
	2019	No. of observations										1	1
		No. of individuals										1	1
	2020	No. of observations										0	
		No. of individuals										0	
Grey Heron	2018	No. of observations										1	1
		No. of individuals										1	1
	2019	No. of observations								1	1	2	4
		No. of individuals								2	2	4	8
	2020	No. of observations	1	3								4	
		No. of individuals	2	4								6	



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals
Common Sandpiper	2018	No. of observations											0
		No. of individuals											0
	2019	No. of observations											0
		No. of individuals											0
	2020	No. of observations		1									1
		No. of individuals		2									2
Dipper	2018	No. of observations											0
		No. of individuals											0
	2019	No. of observations											0
		No. of individuals											0
	2020	No. of observations		1									1
		No. of individuals		1									1
Common Snipe	2018	No. of observations										1	1
		No. of individuals										2	2
	2019	No. of observations											0
		No. of individuals											0
	2020	No. of observations											0
		No. of individuals											0
Cormorant	2018	No. of observations										1	1
		No. of individuals										1	1
	2019	No. of observations								1	2	2	5
		No. of individuals								5	7	5	17
	2020	No. of observations	1	1	1								2
		No. of individuals	2	2	1								4



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Aug	Sep	Oct	Nov	Dec	Totals	
Mute Swan	2018	No. of observations	Shaded								1	1	2	
		No. of individuals	Shaded								2	2	4	
	2019	No. of observations	1											1
		No. of individuals	2											2
	2020	No. of observations				Shaded							0	
		No. of individuals				Shaded							0	
Mallard	2018	No. of observations	Shaded											0
		No. of individuals	Shaded											0
	2019	No. of observations								1	2	1	4	
		No. of individuals								12	10	6	28	
	2020	No. of observations	1		2	Shaded							1	
		No. of individuals	6		5	Shaded							6	
Little Grebe	2018	No. of observations	Shaded									1	1	
		No. of individuals	Shaded									2	2	
	2019	No. of observations										1	1	
		No. of individuals										2	2	
	2020	No. of observations				Shaded							0	
		No. of individuals				Shaded							0	

Shaded cells are those months where no surveys were undertaken.