

BERWICK BANK WIND FARM OFFSHORE ENVIRONMENTAL IMPACT ASSESSMENT

APPENDIX 11.5, ANNEX D: APPORTIONMENT OF SEASONAL MORTALITY ESTIMATES TO SPAS AND NON- SPAS

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Approval for Issue		
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Table 1: Summary of breeding season apportioned mortality.

Species	SPA name	Breeding adults	Proportional Weight	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
Kittiwake	St Abb`s Head to Fast Castle	10904	0.522	279.74	8.65	288.39	344.53	10.66	355.18	408.79	12.64	421.43
	Fowlsheugh	26542	0.172	92.06	2.85	94.91	113.39	3.51	116.89	134.54	4.16	138.70
	Forth Islands	9034	0.057	30.57	0.95	31.52	37.65	1.16	38.82	44.67	1.38	46.06
	Farne Islands	8804	0.045	24.13	0.75	24.88	29.72	0.92	30.64	35.26	1.09	36.35
	Buchan Ness to Collieston Coast	22590	0.012	6.39	0.20	6.58	7.86	0.24	8.11	9.33	0.29	9.62
	Firth of Forth	N/A	0.012	6.22	0.19	6.42	7.66	0.24	7.90	9.09	0.28	9.38
	Troup; Pennan and Lion`s Heads	21232	0.005	2.61	0.08	2.69	3.22	0.10	3.32	3.82	0.12	3.94
	East Caithness Cliffs	48920	0.001	0.37	0.01	0.38	0.45	0.01	0.47	0.54	0.02	0.56
	Flamborough Head and Bempton Cliffs	91008	0.001	0.27	0.01	0.28	0.33	0.01	0.34	0.39	0.01	0.41
	Ythan Estuary, Sands of Forvie and Meikle Loch SPA	N/A	0.000	0.18	0.01	0.19	0.22	0.01	0.23	0.26	0.01	0.27
	Coquet Island	932	0.000	0.04	0.00	0.04	0.05	0.00	0.05	0.06	0.00	0.06
	North Caithness Cliffs	7712	0.000	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01
	Copinsay	1910	0.000	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01
	Pentland Firth Islands SPA	N/A	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hoy	608	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pentland Firth Islands	N/A	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Auskerry	N/A	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-SPA Colonies			0.173	92.99	2.88	95.86	114.52	3.54	118.06	135.88	4.20	140.09
Guillemot	St Abb`s Head to Fast Castle	61408	0.416	79.41	74.78	154.19	285.74	269.09	554.83	476.23	448.49	924.72
	Fowlsheugh	91358	0.359	68.62	64.62	133.24	246.92	232.53	479.45	411.53	387.56	799.09
	Forth Islands	34580	0.109	20.90	19.68	40.58	75.20	70.82	146.01	125.33	118.03	243.35
	Farne Islands	85816	0.088	15.90	16.81	32.71	57.21	60.50	117.71	95.34	100.84	196.18
	Buchan Ness to Collieston Coast	39553	0.009	1.63	1.54	3.17	5.87	5.53	11.39	9.78	9.21	18.99
	Troup; Pennan and Lion`s Heads	31893	0.005	1.00	0.86	1.86	3.59	3.10	6.69	5.98	5.17	11.15
	East Caithness Cliffs	199966	0.002	0.49	0.42	0.91	1.75	1.52	3.27	2.81	2.53	5.34
	North Caithness Cliffs		0.001	N/A	N/A	0.21	N/A	N/A	0.74	N/A	N/A	1.24
	Fair Isle		0.000	N/A	N/A	0.15	N/A	N/A	0.55	N/A	N/A	0.92
	Marwick Head		0.000	N/A	N/A	0.05	N/A	N/A	0.17	N/A	N/A	0.28
	West Westray		0.000	N/A	N/A	0.03	N/A	N/A	0.10	N/A	N/A	0.17
Copinsay		0.000	N/A	N/A	0.03	N/A	N/A	0.09	N/A	N/A	0.15	
Flamborough Head and Bempton Cliffs		0.000	N/A	N/A	0.01	N/A	N/A	0.02	N/A	N/A	0.04	

Species	SPA name	Breeding adults	Proportional Weight	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
	Hoy		0.000	0.00	0.00	0	N/A	N/A	0.02	N/A	N/A	0.03
	Rousay		0.000	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	0.01
	Calf of Eday		0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pentland Firth Islands SPA	N/A	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Papa Westray (North Hill and Holm) SPA		0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Auskerry		0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Non-SPA Colonies		0.010	N/A	N/A	3.88	N/A	N/A	13.95	N/A	N/A	23.30
	Fowlsheugh	17817	0.292	3.56	2.58	6.13	12.36	8.95	21.32	20.66	14.96	35.63
	Forth Islands	7878	0.265	3.00	2.56	5.56	10.42	8.91	19.33	17.41	14.89	32.31
Razorbill	St Abb's Head to Fast Castle	3928	0.231	2.43	2.42	4.85	8.45	8.42	16.87	14.12	14.07	28.19
	East Caithness Cliffs	40117	0.023	0.28	0.20	0.48	0.96	0.70	1.66	1.61	1.17	2.77
	Troup; Pennan and Lion's Heads	6054	0.021	0.26	0.19	0.45	0.90	0.65	1.55	1.50	1.09	2.59
	Flamborough Head and Bempton Cliffs	37476	0.007	0.08	0.07	0.15	0.27	0.25	0.52	0.45	0.42	0.87
	Farne Islands	572	0.004	0.04	0.04	0.09	0.15	0.15	0.30	0.25	0.25	0.50
	North Caithness Cliffs	N/A	0.001	N/A	N/A	0.02	N/A	N/A	0.07	N/A	N/A	0.116
	Copinsay	N/A	0.000	0.00	0.00	0.00	N/A	N/A	0.01	N/A	N/A	0.024
Razorbill	Pentland Firth Islands	N/A	0.000	0.00	0.00	0.00	N/A	0.00	0.00	N/A	N/A	0.008
	Hoy	N/A	0.000	0.00	0.00	0.00	N/A	0.00	0.00	N/A	N/A	0.003
	Auskerry	N/A	0.000	0.00	0.00	0.00	N/A	0.00	0.00	N/A	N/A	0.002
	Redhythe Point	N/A	0.000	0.00	0.00	0.00	N/A	0.00	0.00	0.000	0.000	0.000
	Non-SPA Colonies		0.120	N/A	N/A	2.52	N/A	N/A	8.76	N/A	N/A	14.64
	Forth Islands	11868	0.588	14.12	1.23	15.35	23.45	2.04	25.49			
	Fowlsheugh	1414	0.035	0.84	0.07	0.91	1.40	0.12	1.52			
Herring Gull	Farne Islands	1496	0.030	0.72	0.06	0.78	1.20	0.10	1.30	Scoping a and b are the same as this species was only assessed for collision.		
	St Abb's Head to Fast Castle	612	0.026	0.62	0.05	0.68	1.04	0.09	1.13			
	Non-SPA Colonies	12018	0.321	7.71	0.67	8.38	12.80	1.11	13.92			
	Forth Islands	4006	0.525	3.03	0.30	3.33	4.25	0.42	4.67			
Lesser Black Backed Gull	Farne Islands	1362	0.136	0.79	0.08	0.86	1.10	0.11	1.21	Scoping a and b are the same as this species was only assessed for collision.		
	Coquet Island	40	0.002	0.01	0.00	0.01	0.02	0.00	0.02			
	Non-SPA Colonies	6553	0.335	1.94	0.19	2.13	1.94	1.22	3.15			
	Forth Islands	87240	0.500	5.49	6.01	11.50	19.56	21.44	41.00	32.44	35.56	68.00
Puffin	Farne Islands	87504	0.382	3.89	4.89	8.79	13.88	17.45	31.32	23.01	28.94	51.95
	Coquet Island	50058	0.106	1.09	1.37	2.46	3.89	4.89	8.77	6.45	8.11	14.55

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Gannet	North Caithness Cliffs	3034	0.002	0.01	0.01	0.02	0.05	0.04	0.08	0.08	0.06	0.14
	Flamborough & Filey Coast	958	0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hoy	361	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Non-SPA Colonies	4395	0.008	N/A	N/A	0.18	N/A	N/A	0.66	N/A	N/A	1.09
	Forth Islands	150518	0.971	165.71	1.67	167.39	195.72	1.98	197.69	259.14	2.62	261.76
	Flamborough & Filey Coast	26784	0.013	2.23	0.02	2.26	2.64	0.03	2.67	3.49	0.04	3.53
	Hermaness, Saxa Vord and Valla Field	51160	0.005	0.85	0.01	0.86	1.01	0.01	1.02	1.33	0.01	1.35
	Noss	27530	0.004	0.68	0.01	0.69	.081	0.01	0.81	1.07	0.01	1.08
	Sule Skerry and Sule Stack	18130	0.003	0.51	0.01	0.52	0.60	0.01	0.61	0.80	0.01	0.81
	Fair Isle	9942	0.002	0.34	0.00	0.34	0.40	0.00	0.41	0.53	0.01	0.54
North Rona and Sula Sgeir	22460	0.002	0.34	0.00	0.34	0.40	0.00	0.41	0.53	0.01	0.54	
Non-SPA Colonies	7662	0.001	0.17	0.00	0.17	0.20	0.00	0.20	0.27	0.00	0.27	

Table 2: Summary of non-breeding season apportioned mortality. Proportion of adults and individuals is given by season, where applicable (A = autumn migration, W = winter, S = spring migration)

Species	SPA/Colony name	Proportion adults	Proportion immatures	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
Kittiwake	Hermaness, Saxafoed	A - 0.001 S - 0.001	A - 0.000 S - 0.000	0.17	0.09	0.26	0.29	0.15	0.44	0.39	0.20	0.59
	Foula	A - 0.000 S - 0.001	A - 0.000 S - 0.000	0.15	0.07	0.22	0.24	0.12	0.37	0.33	0.16	0.49
	Noss	A - 0.001 S - 0.001	A - 0.000 S - 0.000	0.23	0.11	0.34	0.38	0.19	0.57	0.51	0.25	0.76
	Sumburgh Head	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.09	0.05	0.14	0.16	0.08	0.24	0.21	0.11	0.32
	Fair Isle	A - 0.001 S - 0.001	A - 0.001 S - 0.001	0.34	0.17	0.51	0.58	0.29	0.87	0.77	0.39	1.16
	Calf of Eday	A - 0.001 S - 0.001	A - 0.001 S - 0.001	0.33	0.16	0.50	0.56	0.28	0.84	0.75	0.37	1.13
	Marwick Head	A - 0.001 S - 0.001	A - 0.000 S - 0.000	0.23	0.12	0.35	0.39	0.20	0.59	0.53	0.26	0.79
	Rousay	A - 0.003 S - 0.003	A - 0.001 S - 0.001	0.79	0.39	1.17	1.32	0.66	1.98	1.77	0.88	2.66
	St Abb's Head to Fast Castle	A - 0.005 S - 0.007	A - 0.003 S - 0.003	1.52	0.74	2.26	2.55	1.28	3.83	3.42	1.71	5.13
	Fowlsheugh	A - 0.013 S - 0.018	A - 0.008 S - 0.008	4.17	2.04	6.21	7.00	3.50	10.50	9.39	4.68	14.07
	Forth Islands	A - 0.004 S - 0.006	A - 0.003 S - 0.003	1.38	0.68	2.06	2.32	1.16	3.49	3.12	1.56	4.67
	Farne Islands	A - 0.005 S - 0.007	A - 0.003 S - 0.003	1.54	0.75	2.29	2.58	1.29	3.87	3.46	1.73	5.19
	Buchan Ness to Collieston Coast	A - 0.018 S - 0.024	A - 0.011 S - 0.011	5.60	2.74	8.35	9.40	4.70	14.11	12.61	6.29	18.90
Troup, Pennan and Lion's Heads	A - 0.022 S - 0.028	A - 0.013 S - 0.013	6.65	3.26	9.91	11.17	5.59	16.76	14.98	7.47	22.45	

Species	SPA/Colony name	Proportion adults	Proportion immatures	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
	East Caithness Cliffs	A - 0.058 S - 0.077	A - 0.034 S - 0.034	18.05	8.84	26.89	30.30	15.16	45.46	40.63	20.28	60.90
	Flamborough and Filey Coast	A - 0.054 S - 0.072	A - 0.032 S - 0.032	16.80	8.23	25.03	28.21	14.11	42.32	37.82	18.87	56.69
	Coquet Island*	A - 0.001 S - 0.001	A - 0.000 S - 0.000	0.26	0.00	0.26	0.44	0.00	0.44	0.59	0.00	0.59
	Copinsay	A - 0.001 S - 0.001	A - 0.001 S - 0.001	0.30	0.15	0.44	0.50	0.25	0.75	0.67	0.33	1.00
	North Caithness Cliffs	A - 0.015 S - 0.019	A - 0.009 S - 0.009	4.53	2.22	6.75	7.61	3.81	11.42	10.20	5.09	15.30
	Hoy	A - 0.001 S - 0.001	A - 0.000 S - 0.000	0.18	0.09	0.26	0.30	0.15	0.45	0.40	0.20	0.60
	West Westray	A - 0.017 S - 0.023	A - 0.010 S - 0.010	5.39	2.64	8.02	9.04	4.52	13.56	12.12	6.05	18.17
	UK North Sea non-SPA colonies	A - 0.101 S - 0.134	A - 0.059 S - 0.059	31.27	15.31	46.58	52.49	26.26	78.75	70.37	35.12	105.50
	UK western non-SPA colonies	A - 0.001 S - 0.001	A - 0.003 S - 0.002	0.22	0.59	0.82	0.37	1.07	1.44	0.50	1.42	1.92
	Cape Wrath	A - 0.000 S - 0.000	A - 0.001 S - 0.001	0.08	0.20	0.28	0.13	0.37	0.50	0.17	0.49	0.66
	North Rona & Sula Sgeir	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.02	0.03	0.02	0.04	0.06	0.02	0.06	0.08
	Handa	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.04	0.05	0.02	0.07	0.09	0.03	0.09	0.12
Kittiwake	St Kilda	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.02	0.03	0.01	0.03	0.05	0.02	0.05	0.06
	Flannan Isles	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.03	0.04	0.02	0.05	0.07	0.02	0.07	0.09

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	Shiant Isles	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.00	0.01	0.01	0.01	0.02	0.03	0.01	0.03	0.03
	Canna & Sanday	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.02	0.02	0.01	0.03	0.04	0.01	0.04	0.05
	Rum	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.02	0.02	0.01	0.03	0.04	0.01	0.04	0.05
	Mingulay & Berneray	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.02	0.04	0.06	0.03	0.08	0.11	0.04	0.11	0.14
	North Colonsay & Western Cliffs	A - 0.000 S - 0.000	A - 0.001 S - 0.000	0.04	0.11	0.15	0.07	0.20	0.27	0.09	0.26	0.36
	Ailsa Craig	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.03
	Rathlin Island	A - 0.000 S - 0.000	A - 0.001 S - 0.000	0.06	0.16	0.22	0.10	0.28	0.38	0.13	0.37	0.51
	Skomer Skokholm	A - 0.000 S - 0.000	A - 0.000 S - 0.000	0.01	0.02	0.03	0.01	0.04	0.05	0.02	0.05	0.07
	Fowlsheugh	A - 0.012 W - 0.010 S - 0.012	A - 0.008 W - 0.002 S - 0.008	1.03	0.67	1.70	1.24	0.81	2.05	3.74	2.42	6.17
	Forth Islands	A - 0.009 W - 0.007 S - 0.009	A - 0.006 W - 0.002 S - 0.006	0.77	0.50	1.27	0.93	0.60	1.53	2.79	1.81	4.59
Razorbill	St Abb's Head to Fast Castle	A - 0.004 W - 0.003 S - 0.004	A - 0.003 W - 0.001 S - 0.003	0.36	0.23	0.59	0.43	0.28	0.71	1.29	0.84	2.13
	Buchan Ness to Collieston Coast	A - 0.010 W - 0.008 S - 0.010	A - 0.007 W - 0.002 S - 0.007	0.85	0.58	1.44	1.03	0.70	1.73	3.10	2.11	5.21
	Troup, Pennan and Lion's Heads	A - 0.006 W - 0.005 S - 0.006	A - 0.004 W - 0.001 S - 0.004	0.51	0.33	0.84	0.62	0.40	1.02	1.85	1.20	3.05

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Razorbill	Farne Islands	A - 0.001 W - 0.001 S - 0.001	A - 0.001 W - 0.000 S - 0.001	0.06	0.04	0.11	0.08	0.05	0.13	0.23	0.15	0.38
	Flamborough and Filey Coast	A - 0.034 W - 0.027 S - 0.034	A - 0.025 W - 0.007 S - 0.025	2.93	2.10	5.03	3.53	2.54	6.07	10.62	7.62	18.25
	North Caithness Cliffs	A - 0.005 W - 0.005 S - 0.005	A - 0.004 W - 0.001 S - 0.004	0.47	0.32	0.80	0.57	0.39	0.96	1.72	1.17	2.89
	East Caithness cliffs	A - 0.042 W - 0.034 S - 0.042	A - 0.029 W - 0.009 S - 0.029	3.66	2.37	6.03	4.41	2.86	7.28	13.28	8.60	21.87
	Foula	A - 0.001 W - 0.001 S - 0.001	A - 0.001 W - 0.000 S - 0.001	0.10	0.07	0.18	0.13	0.09	0.21	0.38	0.26	0.64
	Fair Isle	A - 0.003 W - 0.003 S - 0.003	A - 0.002 W - 0.001 S - 0.002	0.26	0.17	0.43	0.31	0.21	0.52	0.93	0.63	1.56
	West Westray	A - 0.002 W - 0.002 S - 0.002	A - 0.001 W - 0.000 S - 0.001	0.15	0.10	0.26	0.19	0.13	0.31	0.56	0.38	0.93
	UK North Sea non-SPA	A - 0.034 W - 0.027 S - 0.034	A - 0.023 W - 0.007 S - 0.023	2.93	1.90	4.82	3.53	2.29	5.82	10.62	6.88	17.50
	North Rona & Sula Sgeir	A - 0.000 W - 0.001 S - 0.000	A - 0.000 W - 0.000 S - 0.000	0.01	0.01	0.03	0.02	0.02	0.03	0.05	0.05	0.10
	Cape Wrath	A - 0.000 W - 0.002 S - 0.000	A - 0.000 W - 0.001 S - 0.000	0.02	0.03	0.05	0.03	0.03	0.06	0.09	0.10	0.19
Handa	A - 0.000 W - 0.005 S - 0.000	A - 0.001 W - 0.002 S - 0.001	0.06	0.07	0.13	0.07	0.08	0.15	0.22	0.24	0.46	

Species	SPA/Colony name	Proportion adults	Proportion immatures	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
Gannet	St Kilda	A - 0.000 W - 0.002 S - 0.000	A - 0.000 W - 0.001 S - 0.000	0.02	0.02	0.04	0.02	0.03	0.05	0.07	0.08	0.15
	Shiant	A - 0.000 W - 0.004 S - 0.000	A - 0.001 W - 0.001 S - 0.001	0.05	0.05	0.10	0.06	0.06	0.12	0.18	0.19	0.38
	Flannan Islands	A - 0.000 W - 0.001 S - 0.000	A - 0.000 W - 0.000 S - 0.000	0.01	0.01	0.03	0.01	0.02	0.03	0.04	0.05	0.09
	Mingulay and Berneray	A - 0.001 W - 0.009 S - 0.001	A - 0.001 W - 0.003 S - 0.001	0.12	0.13	0.25	0.14	0.15	0.29	0.43	0.46	0.90
	Raithlin Island	A - 0.001 W - 0.007 S - 0.001	A - 0.002 W - 0.000 S - 0.002	0.13	0.16	0.29	0.16	0.19	0.35	0.48	0.57	1.06
	Skomer and Skokholm	A - 0.000 W - 0.003 S - 0.000	A - 0.001 W - 0.000 S - 0.001	0.05	0.06	0.11	0.06	0.07	0.14	0.19	0.22	0.41
	UK Western non-SPA colonies	A - 0.001 W - 0.009 S - 0.001	A - 0.001 W - 0.003 S - 0.001	0.12	0.13	0.25	0.14	0.15	0.29	0.43	0.46	0.89
Gannet	Forth Islands	A - 0.178 S - 0.328	A - 0.145 S - 0.099	5.64	3.89	9.52	6.90	4.77	11.66	11.94	8.22	20.16
	Flamborough & Filey Coast	A - 0.021 S - 0.040	A - 0.017 S - 0.033	0.68	0.56	1.24	0.83	0.68	1.51	1.44	1.18	2.62
	Hermaness, Saxa Vord and Valla Field	A - 0.050 S - 0.047	A - 0.000 S - 0.038	1.39	0.16	1.55	1.70	0.20	1.90	2.93	0.35	3.29
	Noss	A - 0.028 S - 0.026	A - 0.000 S - 0.021	0.77	0.09	0.86	0.94	0.11	1.05	1.62	0.19	1.82
	North Rona and Sula Sgeir	A - 0.006 S - 0.000	A - 0.000 S - 0.000	0.14	0.00	0.14	0.17	0.00	0.17	0.30	0.00	0.30

Species	SPA/Colony name	Proportion adults	Proportion immatures	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
	Sule Skerry and Sule Stack	A - 0.003 S - 0.000	A - 0.000 S - 0.000	0.07	0.00	0.07	0.09	0.00	0.09	0.15	0.00	0.15
	Fair Isle	A - 0.006 S - 0.005	A - 0.000 S - 0.004	0.16	0.02	0.18	0.20	0.02	0.22	0.34	0.04	0.38
	Forth Islands	A - 0.015 W - 0.041 S - 0.016	A - 0.007 W - 0.003 S - 0.008	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Farne Islands	A - 0.007 W - 0.017 S - 0.007	A - 0.003 W - 0.001 S - 0.004	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Alde-Ore Estuary SPA	A - 0.006 W - 0.016 S - 0.006	A - 0.003 W - 0.001 S - 0.003	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	UK North Sea non-SPA	A - 0.124 W - 0.331 S - 0.132	A - 0.059 W - 0.022 S - 0.063	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lesser black-backed gull	Ailsa Craig	A - 0.001 W - 0.001 S - 0.001	A - 0.000 W - 0.000 S - 0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Scoping a and b are the same as this species was only assessed for collision.	
	Rathlin Island	A - 0.001 W - 0.001 S - 0.001	A - 0.000 W - 0.000 S - 0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Lough Neagh & Lough Beg	A - 0.002 W - 0.003 S - 0.002	A - 0.001 W - 0.000 S - 0.001	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Bowland Fells	A - 0.022 W - 0.023 S - 0.023	A - 0.012 W - 0.002 S - 0.013	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Morcambe Bay	A - 0.024 W - 0.025 S - 0.025	A - 0.013 W - 0.002 S - 0.014	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Species	SPA/Colony name	Proportion adults	Proportion immatures	Developer approach			Scoping approach a			Scoping approach b		
				Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality	Estimated adult mortalities	Estimated non-adult mortalities	Total mortality
	Ribble & Alt Estuaries	A - 0.040 W - 0.042 S - 0.042	A - 0.022 W - 0.003 S - 0.023	0.00	0.00	0.00	0.00	0.00	0.00			
	Skokholm Skomerm Mholm	A - 0.028 W - 0.049 S - 0.029	A - 0.019 W - 0.003 S - 0.020	0.00	0.00	0.00	0.00	0.00	0.00			
	Isles of Scilly	A - 0.003 W - 0.017 S - 0.003	A - 0.001 W - 0.001 S - 0.001	0.00	0.00	0.00	0.00	0.00	0.00			
	Uk Western non-SPA	A - 0.191 W - 0.203 S - 0.203	A - 0.104 W - 0.014 S - 0.110	0.00	0.00	0.00	0.00	0.00	0.00			
	Forth Islands	N/A	N/A	0.99	0.51	1.50	1.86	0.96	2.82			
	Fowlsheugh	N/A	N/A	0.06	0.03	0.09	0.11	0.06	0.17			
Herring gull	Farne Islands	N/A	N/A	0.05	0.03	0.08	0.09	0.05	0.14	Scoping a and b are the same as this species was only assessed for collision.		
	St Abb's Head to Fast Castle	N/A	N/A	0.04	0.02	0.07	0.08	0.04	0.12			
	Non-SPA Colonies	N/A	N/A	0.55	0.28	0.83	1.03	0.53	1.56			
	St Abb's Head to Fast Castle	0.515	0.485	36.99	34.84	71.83	44.52	41.93	86.45	133.23	125.47	258.70
	Fowlsheugh	0.515	0.485	25.15	23.69	48.84	30.27	28.51	58.79	90.60	85.32	175.92
	Farne Islands	0.486	0.514	21.80	23.06	44.86	26.24	27.75	54.00	78.53	83.06	161.59
	Forth Islands	0.515	0.485	17.76	16.72	34.48	21.37	20.13	41.50	63.95	60.23	124.18
Guillemot	Buchan Ness to Collieston Coast	0.536	0.464	3.44	2.97	6.41	4.13	3.58	7.71	12.37	10.71	23.08
	Troup, Pennan and Lion's Heads	0.536	0.464	1.54	1.33	2.87	1.85	1.60	3.46	5.55	4.80	10.35
	East Caithness Cliffs	0.536	0.464	3.64	3.43	7.07	4.38	4.13	8.51	13.12	12.35	25.47
	Non-SPA Colonies	N/A	N/A	N/A	N/A	5.30	N/A	N/A	6.38	N/A	N/A	19.10

