



GALETECH
ENERGY SERVICES



Islandmore Wind Farm

Environmental Impact Assessment
Report

Annex 5.7a: Survey Effort

Islandmore Wind Farm Limited

1.0 SURVEY EFFORT – VANTAGE POINT

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Non-breeding 2019-20	25/10/20 19	1	1	3.00	800	none	KW	1	E	Moderate - Poor	8	0		none	none	cold fog at beginning, v. light mist at end
Non-breeding 2019-20	26/10/20 19	1	2	2.00	1245	GP	KW	1-3	W	Good	1-2	6-11	wet	none	none	none
Non-breeding 2019-20	01/11/20 19	1	3	3.00	1200	GP	KW	2-3	SW	Good - Moderate	8	8-11	wet	light showers	none	low cloud dropped, light mist 1300-1315
Non-breeding 2019-20	07/11/20 19	1	4	2.00	1500	none	KW	3-4	N	Good	5-7	6-7	wet	showers	none	none
Non-breeding 2019-20	13/11/20 19	1	5	3.00	1315	K	KW	1	NW-N	Good - Moderate	8	4-6	wet	none	none	mist
Non-breeding 2019-20	03/12/20 19	1	6	3.00	930	LB, K	KW	2-3	S	Good	4-7	4	wet	none	none	none
Non-breeding 2019-20	11/12/20 19	1	7	3.00	830	none	KW	1-2	SW	Good - Moderate	4-7	2-3	wet	showers	none	sleet/snow shower
Non-breeding 2019-20	17/12/20 19	1	8	3.00	930	none	KW	0-2	SW	Good	1	-1-3	wet	none	none	none
Non-breeding 2019-20	08/01/20 20	1	10	2.00	1115	GP	KW	2	SW	Good	2-7	4-6	wet	showers	none	none
Non-breeding 2019-20	17/01/20 20	1	11	2.00	930	none	KW	1-2	W	Good	1-5	1-3	wet	light showers	none	none
Non-breeding 2019-20	23/01/20 20	1	12	2.00	1400	none	KW	2	SW	Good	7-8	8-9	wet	none	none	none
Non-breeding 2019-20	05/02/20 20	1	13	2.00	1215	none	KW	1-4	S	Good	1-4	6	wet	none	none	none
Non-breeding 2019-20	12/02/20 20	1	14	2.00	1330	none	KW	1	SW	Good	5-8	3-6	wet	none	none	none
Non-breeding 2019-20	20/02/20 20	1	15	2.00	1130	GP	KW	5	W	Good - Moderate	2-8	6-7	wet	hail	none	hail
Non-breeding 2019-20	21/02/20 20	1	16	2.00	900	MA	KW	5	SW	Good - Moderate	8	5-8	wet	showers	none	none
Non-breeding 2019-20	25/10/20 19	2	1	2.00	1130	K, GP	KW	1	N	Good - Moderate	8	4-6	wet	showers	none	low cloud beyond 2km, rain shower
Non-breeding 2019-20	26/10/20 19	2	2	3.00	800	WS	KW	1-2	W	Good	1-2	0	wet	none	none	glare to SE 0900-0915
Non-breeding 2019-20	01/11/20 19	2	3	2.00	945	GP, K	KW	1	SW	Good - Moderate	8	6-7	wet	none	none	low cloud
Non-breeding 2019-20	07/11/20 19	2	4	2.00	1015	GP	KW	2-3	N	Good	2-5	6-8	wet	none	none	none
Non-breeding 2019-20	14/11/20 19	2	5	3.00	800	SN	KW	4	N	Good	1-2	4-6	wet	none	none	none
Non-breeding 2019-20	03/12/20 19	2	6	3.00	1330	K	KW	3-4	S	Good	2-8	5-6	wet	none	none	none
Non-breeding 2019-20	11/12/20 19	2	7	3.00	1215	none	KW	2	W	Good	2-8	3-4		light showers	none	none
Non-breeding 2019-20	17/12/20 19	2	8	3.00	1300	none	KW	0-1	S-SW	Good	1	3-6	wet	none	none	none
Non-breeding 2019-20	08/01/20 20	2	10	2.00	1330	SH, GP	KW	1-2	SW	Good	3-5	8-10	wet	none	none	none
Non-breeding 2019-20	17/01/20 20	2	11	1.00	1415	HH	KW	0-2	NW-W	Good	2-6	3-8		none	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Non-breeding 2019-20	23/01/20 20	2	12	2.00	1145	SH	KW	1-2	SW	Good	8	7-8	wet	none	none	none
Non-breeding 2019-20	05/02/20 20	2	13	2.00	1430	HH	KW	2	S	Good	2-4	5-8	wet	none	none	none
Non-breeding 2019-20	12/02/20 20	2	14	2.00	1100	none	KW	1	SW	Good	4-6	2	wet	none	none	none
Non-breeding 2019-20	20/02/20 20	2	15	2.00	1415	K	KW	5	W	Good - Poor	3-8	5-3	wet	light showers / hail	none	hail + rain
Non-breeding 2019-20	21/02/20 20	2	16	2.00	1115	none	KW	5	SW	Good - Moderate	8	7-9	wet	heavy showers	none	rain
Non-breeding 2019-20	25/10/20 19	3	1	3.00	1500	WS, K	KW	1	N	Good	7-8	7-8	wet	none	none	low cloud on horizon
Non-breeding 2019-20	26/10/20 19	3	2	2.00	1030	WS	KW	1	W	Good	1-2	4-6	wet	none	none	slight glare to south east
Non-breeding 2019-20	01/11/20 19	3	3	2.00	730	GP	KW	1	SW	Good - Poor	8	6-10	wet	none	none	fog
Non-breeding 2019-20	07/11/20 19	3	4	2.00	800	GP	KW	2	N	Good	2-6	4-7	wet	none	none	none
Non-breeding 2019-20	14/11/20 19	3	5	3.00	1100	K, ML, GP	KW	4	N	Good	1-3	5-6	wet	light showers	none	none
Non-breeding 2019-20	28/11/20 19	3	6	3.00	1330	none	KW	1-3	NW	Good	6-8	8-11	wet	light showers	none	none
Non-breeding 2019-20	10/12/20 19	3	7	2.45	1400	none	KW	4	WSW-W	Good	3-8	4-5.5	wet	showers	none	none
Non-breeding 2019-20	19/12/20 19	3	8	3.00	845	none	KW	3	SE	Good - Moderate	6-8	4-7	wet	none	none	light mist, slight glare
Non-breeding 2019-20	08/01/20 20	3	10	2.00	900	GP	KW	2	SW	Good	5-8	6	wet	none	none	none
Non-breeding 2019-20	17/01/20 20	3	11	2.00	1145	HH	KW	2-3	W-WNW-NW	Good	6-8	3-8	wet	showers	none	none
Non-breeding 2019-20	23/01/20 20	3	12	2.00	930	GP, HH	KW	0-1	W	Good - Poor	3-8	4-7	wet	none	none	fog
Non-breeding 2019-20	05/02/20 20	3	13	2.00	1000	GP	KW	1	S	Good - Moderate	3-7	3-5	wet	none	none	none
Non-breeding 2019-20	12/02/20 20	3	14	2.00	845	H	KW	1-2	SW	Good - Moderate	6-8	1	wet	none	none	none
Non-breeding 2019-20	20/02/20 20	3	15	2.00	915	GP	KW	4-5	W	Good		3-5	wet	light hail	none	none
Non-breeding 2019-20	21/02/20 20	3	16	2.00	1330	none	KW	4-5	SW	Good - Moderate	8	8-9	wet	showers	none	none
Breeding 2020	24/03/20 20	1	1	3.00	1315	MA, ML	KW	4	S	Good	8	10-11	wet	none	none	none
Breeding 2020	22/04/20 20	1	2	2.00	1130	BZ	PQ	3	ENE	Good	7	10		none	turf cutting	glare
Breeding 2020	24/04/20 20	1	3	1.00	930	K	PQ	1	ENE	Good	8	15		none	turf cutting	glare
Breeding 2020	30/04/20 20	1	4	2.00	915	none	PQ	3	NW	Moderate	8	8		showers	turf cutting	low cloud
Breeding 2020	06/05/20 20	1	5	3.00	1900	MA, SN	KW	2	E	Good - Moderate	6-8	15-19	dry	showers	none	low light
Breeding 2020	14/05/20 20	1	6	2.00	900	BZ	PQ			Good	0	12		none	turf cutting	glare
Breeding 2020	25/05/20 20	1	7	2.00	1600	none	KW	3	SW	Good	8	12-14	dry	light showers	none	none
Breeding 2020	26/05/20 20	1	8	2.00	900	SN, MA, K	KW	1	W	Good	3-4	12-16	dry	none	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2020	12/06/2020	1	9	3.00	945	MA, SN	KW	3-4	NE	Good	8	11	dry	light showers	none	none
Breeding 2020	24/06/2020	1	10	3.00	1000	K	KW	2	SW	Good	3-6	14-18		none	none	none
Breeding 2020	03/07/2020	1	11	2.00	800	CU, RG, LB, SN	KW	3	SW	Good - Moderate	8	12-14	wet	none	none	mist
Breeding 2020	09/07/2020	1	12	2.00	1315	none	KW	3	N	Good	6-7	15-17	wet	none	none	none
Breeding 2020	23/07/2020	1	13	2.00	1415	K	KW	2	NW-NWN	Good	7-8	16-17	wet	none	none	none
Breeding 2020	05/08/2020	1	14	2.00	1545	K	KW	2	W	Good	3-6	18-22	wet	none	none	none
Breeding 2020	11/08/2020	1	15	2.00	845	K	KW	1	NE	Good	1-5	18-20	wet	none	none	none
Breeding 2020	24/08/2020	1	16	2.00	1230	K	KW	1-2	S-SE	Good	7-8	16	wet	none	none	none
Breeding 2020	25/08/2020	1	17	2.00	930	SH	KW	0-1	W-N-E	Good - Moderate	8	15	wet	showers	none	mist, low cloud
Breeding 2020	27/08/2020	1	18	1.00	1400	none	KW	1-2	E	Good	6-7	15-16	wet	none	none	none
Breeding 2020	24/03/2020	2	1	3.00	1330	K	KW	1-2	W-SW	Good	3-6	19-22	dry	none	none	none
Breeding 2020	25/03/2020	2	2	3.00	1000	HH, K	KW	1-2	S	Moderate	8	7-9	wet	light showers	none	mist
Breeding 2020	22/04/2020	2	3	2.00	1400	none	PQ	2	E	Good	5	16		none	turf cutting	glare
Breeding 2020	24/04/2020	2	4	1.00	1150	none	PQ	1	ENE	Good	6	17		none	turf cutting	glare
Breeding 2020	30/04/2020	2	5	2.00	1340	K, ML	PQ	2	NNW	Good	6	12		none	turf cutting	low cloud
Breeding 2020	08/05/2020	2	6	3.00	900	none	KW	1	S-SSE	Good	3-7	14-17	dry	none	none	none
Breeding 2020	14/05/2020	2	7	2.00	1330	none	PQ	2	N	Good	1	15		none	turf cutting	glare
Breeding 2020	26/05/2020	2	8	2.00	1115	none	KW	1-2	W	Good	3-5	15-18	dry	none	none	none
Breeding 2020	11/06/2020	2	9	3.00	1215	none	KW	3	NE	Good	6-8	14-16	dry	none	none	none
Breeding 2020	03/07/2020	2	11	2.00	1245	none	KW	2	SW	Good	8	15	wet	none	none	light mist
Breeding 2020	09/07/2020	2	12	2.00	845	K, LB	KW	2-3	N	Good	7	10-13	wet	none	none	none
Breeding 2020	23/07/2020	2	13	2.00	930	none	KW	2	W	Good	8	10-15	wet	none	none	none
Breeding 2020	05/08/2020	2	14	2.00	1330	none	KW	1-2	W	Good	6-8	17-19	wet	none	none	none
Breeding 2020	11/08/2020	2	15	2.00	1315	none	KW	1	SE-E-NW	Good	3-5	23-24	wet	none	none	none
Breeding 2020	24/08/2020	2	16	2.00	1015	none	KW	2-3	SSE-SE	Good	5-7	13-15	wet	none	none	none
Breeding 2020	24/08/2020	2	17	2.00	1715	none	KW	2	SE	Good	5-8	17	wet	none	none	none
Breeding 2020	27/08/2020	2	18	3.00	1515	none	KW	1-3	NE	Good	7-8	16-17	wet	showers	none	none
Breeding 2020	24/03/2020	3	1	3.00	945	GP	KW	4-5	S	Good	8	7-10	wet	none	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2020	22/04/2020	3	2	2.00	1145	none	PQ	3	E	Good		14		none	turf cutting	glare
Breeding 2020	24/04/2020	3	3	1.00	1040	none	PQ	1	ENE	Good	7	15		none	turf cutting	glare
Breeding 2020	30/04/2020	3	4	2.00	1125	none	PQ	3	NNW	Good	6	12		light showers	turf cutting	low cloud
Breeding 2020	07/05/2020	3	5	3.00	900	none	KW	2	S-SE	Good	6-8	10-13	wet	showers	none	none
Breeding 2020	14/05/2020	3	6	2.00	1115	none	PQ	1	N	Good	1	14		none	turf cutting	glare
Breeding 2020	25/05/2020	3	7	2.00	1130	LB, MA	KW	3	SW	Good	7-8	14-16	dry	light showers	none	none
Breeding 2020	26/05/2020	3	8	2.00	1945	RG, MA	KW	1-2	N	Good	1-3	8-10	dry	none	none	none
Breeding 2020	11/06/2020	3	9	3.00	1545	none	KW	3	NE	Good	5-7	16-18	dry	none	none	none
Breeding 2020	25/06/2020	3	10	3.00	1030	K	KW	0-1	N	Good	3-5	20	dry	none	none	none
Breeding 2020	03/07/2020	3	11	2.00	1015	SN	KW	2-3	SW-N	Moderate - Poor	8	14-15	wet	showers	none	mist, low cloud
Breeding 2020	09/07/2020	3	12	2.00	1100	K	KW	2	N	Good	4-7	13-15	wet	none	none	none
Breeding 2020	23/07/2020	3	13	2.00	1145	K	KW	2	W-WNW	Good	7-8	16-18	wet	none	none	mist
Breeding 2020	05/08/2020	3	14	2.00	815	K	KW	1	NW-W	Good - Moderate	8	14-16	wet	showers	none	none
Breeding 2020	11/08/2020	3	15	2.00	1100	none	KW	1	ENE-E	Good	3-5	19-22	wet	none	none	none
Breeding 2020	24/08/2020	3	16	2.00	1500	none	KW	2	SE	Good	5-8	17-18	wet	none	none	none
Breeding 2020	27/08/2020	3	17	3.00	945	none	KW	1	E	Good	8	15-16	wet	light showers	none	none
Non-breeding 2020-21	19/09/2020	1	1	4.00	800	K	KW	1-2	E	Good	1-4	10-14	dry	none	none	none
Non-breeding 2020-21	21/10/2020	1	2	3.00	1015	GP	JB	2-3	N-NW	Good - Moderate	8	10	wet	drizzle / light showers	walkers through site	none
Non-breeding 2020-21	21/10/2020	1	3	3.00	1345	K,WS	JB	2-3	NW-NNW	Good - Moderate	8	11	wet	occasional drizzle	walkers through site	none
Non-breeding 2020-21	10/11/2020	1	4	3.00	815	K, WS,GP,	JB	2	S	Good	8	9-12	wet	none	walkers through site	none
Non-breeding 2020-21	10/11/2020	1	5	3.00	1145	GP, K,	JB	2-3	S-SSE	Good	8	12	wet	none	walkers through site	none
Non-breeding 2020-21	08/12/2020	1	6	3.00	1030	GP,K.	JB	3	NNW	Good - Moderate	6-8	6	wet	showers	walkers through site	none
Non-breeding 2020-21	08/12/2020	1	7	3.00	1330	HG,K.,SN,HH	JB	2	NNW	Good - Moderate	6-7	6	wet	showers	Tractor, walkers through site	none
Non-breeding 2020-21	05/01/2021	1	8	3.00	1015	none	JB	1-2	N	Good	1	1 to 2	frozen	none	walkers through site	none
Non-breeding 2020-21	05/01/2021	1	9	3.00	1330	H	JB	2	N	Good	1-5	3	frozen	none	walkers through site	none
Non-breeding 2020-21	25/02/2021	1	10	4.00	1200	HH,BZ	JB	3	W	Good	4-7	9	damp	showers	walkers through site	none
Non-breeding 2020-21	07/03/2021	1	11	2.00	1445	K,MA	JB	2	S	Good	8	8	damp	none	none	none
Non-breeding 2020-21	08/03/2021	1	12	2.00	930	ML	JB	3	S	Good	8	7	damp	none	walkers through site	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Non-breeding 2020-21	19/09/20 20	2	1	4.00	1300	none	KW	1	E	Good	1-4	15-17	dry	none	none	none
Non-breeding 2020-21	22/10/20 20	2	2	3.00	1015	GP,WS,K	JB	2	W	Good	3-5	10	Wet	none	None	none
Non-breeding 2020-21	22/10/20 20	2	3	3.00	1345	GP,K	JB	2-3	SW-W	Good	7-8	11	Wet	none	None	none
Non-breeding 2020-21	07/11/20 20	2	4	3.00	845	GP,K,	JB	2-3	NE	Good	5-8	8	wet	none	none	none
Non-breeding 2020-21	07/11/20 20	2	5	3.00	1215	ML, GP	JB	3	NE	Good	5-8	8	wet	none	none	none
Non-breeding 2020-21	10/12/20 20	2	6	3.00	830	GP,K.	JB	2-3	S-SW	Moderate - Poor	5	6	wet	none	None	mist, low cloud drifting through site
Non-breeding 2020-21	10/12/20 20	2	7	3.00	1200	GP,HH	JB	3-4	S-SW	Good - Moderate	5	6	wet	light showers / heavy showers	None	heavy rain last 30min
Non-breeding 2020-21	07/01/20 21	2	8	3.00	945	K	JB	1-2	N-NNW	Good	4-6	1 to 5	frozen	none	walkers through site	none
Non-breeding 2020-21	07/01/20 21	2	9	3.00	1315	H	JB	2-3	NNW-N	Good	5-8	4	frozen	none	walkers through site	none
Non-breeding 2020-21	09/02/20 21	2	10	4.00	930	K	JB	3-4	E	Good	8	-0.5- 1	wet	none	None	none
Non-breeding 2020-21	06/03/20 21	2	11	2.00	1445	K	JB	4	S	Good	4	10	damp	none	none	none
Non-breeding 2020-21	09/03/20 21	2	12	2.00	915	MA	JB	3-4	S	Good - Moderate	8	8	wet	drizzle / light rain	walkers through site	thick mizzle
Non-breeding 2020-21	22/09/20 20	3	1	4.00	1500	HG	KW	2-3	S-SSW	Good	5-8	12-15	wet	showers	none	none
Non-breeding 2020-21	20/10/20 20	3	2	3.00	1045	none	KW	3	SE	Good - Poor	8	10-12	wet	showers	none	low cloud
Non-breeding 2020-21	20/10/20 20	3	3	3.00	1430	none	KW	3	SE-S	Good - Poor	8	11-12	wet	showers	none	low cloud, rain
Non-breeding 2020-21	08/11/20 20	3	4	3.00	815	RG , GP, BZ, SN	JB	2-3	SSE	Good	8	10	wet	none	none	none
Non-breeding 2020-21	08/11/20 20	3	5	3.00	1145	GP, K,	JB	3	SSE	Good	8	11	wet	none	none	none
Non-breeding 2020-21	12/12/20 20	3	6	3.00	830	RG,HH,K.	JB	2	WSW	Good	1	4-6	wet	none	None	none
Non-breeding 2020-21	12/12/20 20	3	7	3.00	1145	SH,K.	JB	2	WSW	Good	1	6	wet	none	None	none
Non-breeding 2020-21	08/01/20 21	3	8	3.00	830	HH,GP	JB	1-2	NE	Good	2	-1 to 2	frozen	none	None	none
Non-breeding 2020-21	08/01/20 21	3	9	3.00	1145	none	JB	2	NE-N	Good	2	2 to 4	frozen	none	None	none
Non-breeding 2020-21	06/02/20 21	3	10	4.00	1115	none	JB	2	E	Good	8	5	wet	none	None	none
Non-breeding 2020-21	06/03/20 21	3	11	4.00	1015	ML,GP,K	JB	3	S	Good	4-6	7-10	damp	none	none	none
Breeding 2021	23/03/20 21	1	1	3.00	1015	MA,SH,LB	JB	4	SSW	Good	8	9	damp	none	walkers through site	none
Breeding 2021	30/04/20 21	1	2	3.00	930	K	PD	2	S-SW-SE	Good	4-5	9	damp	none	helicopter overhead	heat waves, glare
Breeding 2021	06/05/20 21	1	3	2.00	715	LB, MA	PD	1-2	S	Good	1	2-5	damp	none	none	sun in eyes
Breeding 2021	11/05/20 21	1	4	2.00	1300	LK, LB	PD	4	NW	Good	5	13	damp	none	none	heat waves
Breeding 2021	11/06/20 21	1	5	2.00	900	none	PD	4	E-NE	Good	7	12	damp	light showers	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2021	14/06/2021	1	6	1.00	1230	SN	PD	3	E	Good	8	11	damp	none	none	none
Breeding 2021	29/06/2021	1	7	2.00	1730	LB	PD	4	S	Good	8	14	damp	none	none	none
Breeding 2021	30/06/2021	1	8	2.00	1030	LB	PD	2	S	Good	8	11-12	damp	none	none	none
Breeding 2021	05/07/2021	1	9	3.00	1315	GB,K,BZ,	DB	2-3	SW-W	Good	8	18	Damp	showers	None	none
Breeding 2021	05/07/2021	1	10	3.00	1645	LB,K	DB	2-3	W-NW	Good	8	15	Damp	showers	walkers through site	none
Breeding 2021	08/07/2021	1	11	3.00	930	SN,SI,LB,	DB	2	W	Good	8	18	Damp	None	None	none
Breeding 2021	03/08/2021	1	12	2.00	1245	LB	PD	2	NE	Good	6	16	damp	none	none	heat waves
Breeding 2021	11/08/2021	1	13	3.00	1100	none	PD	4	E	Good	4	16	damp	none	none	heat waves
Breeding 2021	16/08/2021	1	14	2.00	1415	LB	PD	4	SE	Good	8	14	damp	light showers	none	none
Breeding 2021	27/08/2021	1	15	3.00	1100	K	PD	3	N-NW	Good	2	17-18	damp	none	none	none
Breeding 2021	24/03/2021	2	1	3.00	945	ML,H,K,RG,M A	JB	3-4	SW	Good - Moderate	8	7	damp	none	none	rain last 45 min
Breeding 2021	29/04/2021	2	2	2.00	1200	none	PD	2-3	SW	Good	5	11	damp	none	none	heat waves
Breeding 2021	05/05/2021	2	3	2.00	1200	none	PD	2	S-SW	Good	5	7	damp	light showers	none	heat waves
Breeding 2021	06/05/2021	2	4	2.25	930	SH	PD	2	SW	Good	3	6-8	damp	none	none	heat waves
Breeding 2021	11/05/2021	2	5	2.00	1515	K	PD	4	NW	Good	6	13	damp	none	none	none
Breeding 2021	14/06/2021	2	6	2.00	1015	GB, SN	PD	3	NE-ESE	Good	8	11	damp	light showers	none	none
Breeding 2021	29/06/2021	2	7	2.00	1515	K,LB	PD	4	S	Good	8	14	damp	none	none	none
Breeding 2021	30/06/2021	2	8	2.00	1245	none	PD	2	S	Good	3	17	damp	none	none	none
Breeding 2021	06/07/2021	2	9	3.00	930	K,LB,SN	DB	3	W	Good - Moderate	8	15	Damp	showers	Tractor, walkers through site	none
Breeding 2021	06/07/2021	2	10	3.00	1300	SN,K,LB	DB	3	NW	Good	8	15	Damp	showers	None	none
Breeding 2021	06/07/2021	2	11	3.00	1600	LB,SN,K	JB	4	NW	Good - Moderate	8	14	Damp	light showers	None	heavy rain shower
Breeding 2021	03/08/2021	2	12	2.00	1030	none	PD	2	NE	Good	7	15	damp	none	none	heat waves
Breeding 2021	04/08/2021	2	13	3.00	915	K	PD	3-4	N	Poor	8	13-14	damp	showers	none	heavy mist
Breeding 2021	11/08/2021	2	14	3.00	745	none	PD	4	NW-SE	Poor	8	16	damp	heavy showers	none	mist/rain
Breeding 2021	27/08/2021	2	15	1.75	900	HG	PD	3	N	Poor	8	14	damp	none	none	thick Fog
Breeding 2021	23/03/2021	3	1	3.00	700	WS,MA,LB,G P	JB	3-4	S-SSW	Good	8	8	damp	none	none	none
Breeding 2021	29/04/2021	3	2	3.00	1500	none	PD	5	SW	Good	4	9	damp	none	local farmers working	heat waves

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
															with machinery	
Breeding 2021	05/05/2021	3	3	2.00	1500	none	PD	2	S-SW	Good	4	9	damp	none	none	heat waves
Breeding 2021	06/05/2021	3	4	2.00	1230	K	PD	3	S-SW	Good	5	8	damp	none	none	heat waves
Breeding 2021	11/06/2021	3	5	1.00	1130	RG	PD	4	SE	Good	7	12	damp	light showers	none	none
Breeding 2021	14/06/2021	3	6	3.00	1345	none	PD	3	E	Good	8	12	damp	none	none	none
Breeding 2021	25/06/2021	3	7	3.00	930	none	PD	4	SW	Good	7-8	11	damp	none	none	none
Breeding 2021	29/06/2021	3	8	2.00	1300	K	PD	4	SW	Good	8	14	damp	none	none	none
Breeding 2021	30/06/2021	3	9	2.00	1500	none	PD	2	S	Good	3	19	damp	none	none	heat waves
Breeding 2021	07/07/2021	3	10	3.00	945	SN,SI,GB,LB,K	DB	3	NW	Good	8	15	damp	none	None	none
Breeding 2021	07/07/2021	3	11	3.00	1315	K, LB	DB	3	NW	Good	8	15	damp	none	None	none
Breeding 2021	16/07/2021	3	12	3.00	815	HH	PD	1-2	W	Good	1	14	damp	none	none	none
Breeding 2021	03/08/2021	3	13	2.00	815	none	PD	2	NE	Good	8	12	damp	none	none	thick Fog
Breeding 2021	04/08/2021	3	14	3.00	1230	none	PD	2-3	N-E	Moderate	8	16	damp	light showers / heavy showers	none	heavy rain
Breeding 2021	05/08/2021	3	15	3.00	800	none	PD	4	SE	Poor	8	13	damp	light showers	none	Mist
Breeding 2021	13/08/2021	3	16	3.00	800	none	PD	5	E	Poor	8	15	damp	light showers	none	mist/rain
Breeding 2021	16/08/2021	3	17	2.00	1200	LB	PD	4	NE-SE	Good	8	13	damp	light showers	none	none
Non-breeding 2021-22	28/10/2021	1	1	2.50	1545	HH, RG	MT	1-2	S-SSW	Good	4-8	10-12	wet	none	none	none
Non-breeding 2021-22	30/11/2021	1	2	3.00	1245	none	DR	1	SW	Moderate - Poor	8	8	wet	drizzle / heavy rain	none	from 13:15, visibility very poor, but occasionally clear
Non-breeding 2021-22	01/12/2021	1	3	3.00	1310	K, HH	DR	2-7	NW	Good - Poor	3-8	4-5	wet	light showers	none	often mist on hill but clear otherwise
Non-breeding 2021-22	09/12/2021	1	4	3.00	1210	none	DR	2-5		Moderate	8	4-6	wet	dry / drizzle	none	misty at first, clearer as day went on
Non-breeding 2021-22	14/12/2021	1	5	3.00	1200	K	DR	4-6	S	Good - Moderate	8	7	damp	none	none	none
Non-breeding 2021-22	12/01/2022	1	6	3.00	920	SH	DR	0-1		Poor	8	10-14	damp/wet	none	none	low cloud
Non-breeding 2021-22	18/01/2022	1	7	3.00	1210	none	DR	1-2		Good - Moderate	8	11	wet	light showers	none	none
Non-breeding 2021-22	20/01/2022	1	8	3.00	940	WK	DR	1-2		Good	7-8	11	damp	none	none	none
Non-breeding 2021-22	11/02/2022	1	9	3.00	1305	none	DR	4-6	S	Good	4	5	damp/wet	none	none	none
Non-breeding 2021-22	16/02/2022	1	10	3.00	950	CU	DR	6-7	SW	Good - Moderate	8	10	wet	occasional drizzle	none	mostly good vis., some

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
																drizzle made distance hazy
Non-breeding 2021-22	26/02/2022	1	11	3.00	1020	none	DR	5-6	S	Good	8	7	damp/wet	light showers	none	none
Non-breeding 2021-22	28/02/2022	1	12	2.50	1110	none	DR	1-3	S	Good	6-8	5	damp/wet	occasional drizzle	none	none
Non-breeding 2021-22	23/03/2022	1	13	4.00	1200	K	JOC	2-3	S-SE-SSE	Moderate	2-4	15-16	dry	none	occasional planes overhead	glare, haze and thermals
Non-breeding 2021-22	28/10/2021	2	1	2.00	800	GP	MT	2	S	Moderate - Poor	8	10	wet	none	none	low light, fog
Non-breeding 2021-22	21/11/2021	2	2	1.00	1605	none	GO	2	N	Good	2	6	damp	none	none	none
Non-breeding 2021-22	22/11/2021	2	3	3.00	1330	none	GO	1-2	NW-N	Good	2-5	12	damp	none	none	none
Non-breeding 2021-22	23/11/2021	2	4	3.00	1210	none	DR	1-3	SW	Good	2-5	5-7	dry	none	none	none
Non-breeding 2021-22	28/11/2021	2	5	3.00	950	CU	DR	0		Good - Moderate	8	3	wet	drizzle	none	fog/mist early on
Non-breeding 2021-22	09/12/2021	2	6	3.00	845	none	DR	2-3	S	Good - Poor	8	3	wet	drizzle / rain	none	misty early on and later, clearer around 1000
Non-breeding 2021-22	18/12/2021	2	7	3.00	925	none	GO	3-4	SE	Moderate	7-8	5-6	damp	none	11 walkers on bog track and road, no dogs	mist
Non-breeding 2021-22	19/12/2021	2	8	3.00	925	none	GO	2	SE		8	5	moist	none	none	mist
Non-breeding 2021-22	25/01/2022	2	9	1.00	1555	none	GO	2	SW	Good - Moderate	7	7	damp	none	walkers through site, with dogs	none
Non-breeding 2021-22	26/01/2022	2	10	3.00	935	none	GO	4-5	SW	Good - Moderate	8	7	damp	none	walkers through site, with dogs	none
Non-breeding 2021-22	27/01/2022	2	11	4.00	1320	none	GO	1-2	NW	Good	2-8	9	moist	light showers	walkers through site, with dogs	mostly good
Non-breeding 2021-22	21/02/2022	2	12	3.00	1125	GP	GO	4-5	NW	Good - Moderate	4-8	8.5	damp	none	walkers through site	slight mist at end of watch
Non-breeding 2021-22	22/02/2022	2	13	3.00	940	GP	GO	4-5	WNW		4-8	8-9.5	damp	light showers	none	two walkers, hedge trimming at end of watch
Non-breeding 2021-22	23/03/2022	2	14	1.00	1635	none	JOC	2	S	Good	4-6	15	dry	none	none	none
Non-breeding 2021-22	28/10/2021	3	1	2.00	1021	GP	MT	2-3	S	Good - Poor	7-8	10-11	wet	none	none	fog lifted, still low cloud base
Non-breeding 2021-22	24/11/2021	3	2	3.00	850	PH	DR	0-1		Good - Moderate	3-6	5	wet	occasional light showers / heavy showers	none	none
Non-breeding 2021-22	28/11/2021	3	3	3.00	1345	PH, H	DR	0		Moderate	7-8	7	wet	some drizzle	none	low cloud, misty,

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
																sporadically clearer
Non-breeding 2021-22	13/12/20 21	3	4	3.00	900	none	DR	0		Good	3-5	3-5	damp	none	none	none
Non-breeding 2021-22	14/12/20 21	3	5	3.00	850	none	Dr	2-5	S	Good - Poor	6-8	7	wet	none	none	early low cloud, clear from 0930 onwards
Non-breeding 2021-22	12/01/20 22	3	6	3.00	1235	none	DR	0-2	S	Good	4-8	12-13	wet	none	none	fog for first hour then clear
Non-breeding 2021-22	18/01/20 22	3	7	3.00	850	none	DR	1-3	SE	Good - Poor	8	8-10	wet	showers	none	low cloud at start; clearer later
Non-breeding 2021-22	20/01/20 22	3	8	3.00	1255	none	DR	1-2		Good	7-8	12	damp/wet	none	none	none
Non-breeding 2021-22	11/02/20 22	3	9	3.00	940	HH	DR	1	S	Good	1-5	2	damp/froze n	none	none	glare whilst looking S; 1100 better visibility
Non-breeding 2021-22	16/02/20 22	3	10	3.00	1310	HH, L, GP	DR	6-7	S	Good	2-5	9-10	wet	occasional drizzle	none	glare looking into buffer to S.
Non-breeding 2021-22	26/02/20 22	3	11	3.00	1335	MA, LB	DR	4-6	S	Good	8	7-8	wet	occasional drizzle	none	none
Non-breeding 2021-22	28/02/20 22	3	12	3.00	1400	K, SN	DR	1-2		Good	3-5	5-7	damp/wet	none	none	none
Non-breeding 2021-22	24/03/20 22	3	13	3.00	1150	MA	DR	1-3	S	Good	6-8	12	damp	none	none	none
Non-breeding 2021-22	28/10/20 21	4	1	2.00	1251	none	MT	2-3	S	Good - Moderate	7-8	11-13	wet	occasional showers	none	showers, low cloud base
Non-breeding 2021-22	24/11/20 21	4	2	3.00	1215	none	DR	1-3	W	Good	3-7	2	wet	occasional heavy showers	none	none
Non-breeding 2021-22	30/11/20 21	4	3	3.00	915	none	DR	3-4	W	Good - Moderate	7-8	8	damp	drizzle	none	low cloud on horizon at times
Non-breeding 2021-22	13/12/20 21	4	4	3.00	1220	SH, HH	DR	1	S	Good	3-5	6	dry/damp	none	Tractor, walkers through site	none
Non-breeding 2021-22	18/12/20 21	4	5	3.00	1305	none	GO	2-4	S-SE	Moderate	8	6	moist	none	occasional planes overhead	mist
Non-breeding 2021-22	19/12/20 21	4	6	3.00	1310	none	GO	1-2	SE	Moderate	8	5	moist	none	turf cutting	mist
Non-breeding 2021-22	26/01/20 22	4	7	3.00	1305	none	GO	4-5	SW	Moderate - Poor	8	8	damp	drizzle / mist	turf cutting	mist, drizzle at times
Non-breeding 2021-22	28/01/20 22	4	8	3.00	925	none	DR	2	SW	Poor	8	7	damp	none	none	low cloud at first; from 1020 very clear
Non-breeding 2021-22	21/02/20 22	4	9	2.00	1515	none	GO	2	NW		8	8.5	damp	light showers	felling trees to the N of VP	none
Non-breeding 2021-22	22/02/20 22	4	10	4.00	1305	none	GO	4-5	SW-NW	Good	2-8	7-9.5	damp	occasional showers	none	occasional showers
Non-breeding 2021-22	01/03/20 22	4	11	2.00	1540	HH	JOC	2	E	Moderate	2-3	5-8	dry	none	walkers through site	glare from sun
Non-breeding 2021-22	23/03/20 22	4	12	3.00	1510	none	DR	1	S	Good	4-6	10-12	dry/damp	none	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Non-breeding 2021-22	27/03/20 22	4	13	3.00	1525	none	GO	2-3	SE	Good	4-5	18	dry	none	none	slight heat haze for first half - clearing
Breeding 2022	29/03/20 22	1	1	3.00	1405	none	DR	0-2		Good	1-2	15	dry	none	small fire on heather/tre es, fire service present	none
Breeding 2022	07/04/20 22	1	2	3.00	1025	SN	DR	1-5	N	Good - Moderate	6-8	1-3	wet	occasional showers	none	low cloud at various times during watch
Breeding 2022	13/04/20 22	1	3	3.00	900	MA	DR	0-1		Good	5-8	9-10	dry/damp	none	none	none
Breeding 2022	19/04/20 22	1	4	3.00	950	PH	DR	1-2		Good - Moderate	7-8	5	damp/wet	occasional showers	none	none
Breeding 2022	10/05/20 22	1	5	3.00	850	none	DR	1-5	W	Good - Moderate	4-6	10	damp/wet	showers	none	none
Breeding 2022	16/05/20 22	1	6	3.00	1525	none	DR	3-4	S	Good	4-8	12	damp/wet	none	none	none
Breeding 2022	15/06/20 22	1	7	3.00	1115	BZ	DR	3-4	S	Good	6-8	15	Dry/Damp	occasional drizzle	None	none
Breeding 2022	22/06/20 22	1	8	3.00	1300	LB	DR	1-2	S	Good	7-8	15	Dry/Damp	none	None	none
Breeding 2022	19/07/20 22	1	9	3.00	850	LB	DR	4-5	N	Good	3-7	16	Dry	none	None	none
Breeding 2022	26/07/20 22	1	10	3.00	845	SH	DR	1-2		Poor	6-8	13-16	Damp	drizzle	None	misty at first
Breeding 2022	24/08/20 22	1	11	3.00	1215	BZ	DR	4-5	S	Good	4-7	13-15	Damp	occasional light showers	none	none
Breeding 2022	28/08/20 22	1	12	3.00	1400	BZ K	DR	2-4	NE	Good	7-8	18	Dry	none	none	none
Breeding 2022	27/03/20 22	2	1	3.00	1210	none	GO	2-3	SSE	Good	2-5	16	dry	none	walkers through site, with dogs	slight heat haze
Breeding 2022	28/03/20 22	2	2	3.00	1430	none	GO	0-2	SSE	Good	2-4	17	dry	none	walkers through site, with dogs	distant haze
Breeding 2022	04/05/20 22	2	3	3.00	1210	none	DR	4-5	NE	Good	5-7	13	dry/damp	none	none	none
Breeding 2022	16/05/20 22	2	4	3.00	1205	none	DR	2-5	S	Good	5-7	13	damp/wet	occasional light showers	none	none
Breeding 2022	24/05/20 22	2	5	3.00	1345	none	DR	3-4	NW	Good	5-7	12	damp/wet	occasional light showers	none	none
Breeding 2022	02/06/20 22	2	6	3.00	1105	CM	DR	1-3	W	Good	7-8	11	Damp	occasional light showers	None	none
Breeding 2022	15/06/20 22	2	7	3.00	1430	none	DR	4-5	S	Good	8	15	dry/damp	none	None	none
Breeding 2022	19/07/20 22	2	8	3.00	1210	ML LB	DR	4-5	N	Good	8	16	Dry/Damp	light showers	None	none
Breeding 2022	26/07/20 22	2	9	3.00	1500	none	DR	2-4	N	Good	6-7	14	dry/damp	light showers	None	none
Breeding 2022	03/08/20 22	2	10	3.00	1055	K	DR	3-4	W	Good	6-7	14	Dry/Damp	none	none	none
Breeding 2022	18/08/20 22	2	11	3.00	1030	none	DR	3-4	S-SW	Moderate	7-8	18-22	wet	Drizzle	none	low cloud base (LCB)
Breeding 2022	25/08/20 22	2	12	3.00	1625	none	DR	2-3	S	Good	7-8	12	damp/wet	drizzle	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2022	29/03/2022	3	1	1.00	1720	none	DR	0-1		Good	1-3	15	dry	none	none	none
Breeding 2022	13/04/2022	3	2	3.00	1510	none	DR	2-4	S	Good	3-8	11-13	dry/damp	none	none	none
Breeding 2022	19/04/2022	3	3	3.00	1315	none	DR	1-4	NW	Good	7-8	5-6	wet	dry / drizzle	none	none
Breeding 2022	10/05/2022	3	4	3.00	1530	none	DR	5-8	W	Good	5-8	10-11	damp/wet	occasional showers	none	none
Breeding 2022	18/05/2022	3	5	3.00	1555	none	DR	5-6	E	Moderate - Poor	8	8	wet	showers	none	weather gradually get worse
Breeding 2022	24/05/2022	3	6	1.00	1955	none	DR	3	NW	Good	7-8	10	damp/wet	occasional showers	none	dry then rain at 20:20
Breeding 2022	14/06/2022	3	7	3.00	1610		DR	3-4	S	Good	7-8	15	dry/damp	none	None	none
Breeding 2022	29/06/2022	3	8	3.00	1345		DR	2-4	S	Good	6-8	12-13	wet	occasional showers	None	none
Breeding 2022	13/07/2022	3	9	3.00	1110	LB	DR	3-4	W	Good	4-7	16-17	Damp	none	None	none
Breeding 2022	19/07/2022	3	10	3.00	1520	None	DR	2-4	N	Good	6-8	13	Dry	light showers	None	none
Breeding 2022	31/07/2022	3	11	3.00	1130	BZ	DR	2-4	N	Good	5-6	15	dry/damp	none	None	none
Breeding 2022	03/08/2022	3	12	1.00	1715	none	DR	2-3	W	Good	7-8	13	wet	showers	none	none
Breeding 2022	16/08/2022	3	13	3.00	1540	none	DR	3-4	N	Good	2-8	14	dry/damp	none	none	none
Breeding 2022	31/08/2022	3	14	3.00	1320	none	DR	3-4	NE	Good	4-6	18	Dry	none	none	none
Breeding 2022	28/03/2022	4	1	3.00	1430	none	GO	0-2	SSE	Good	2-4	17	dry	none	walkers through site, with dogs	distant haze
Breeding 2022	29/03/2022	4	2	2.00	1140	PH	DR	0-1		Good	0-3	11	dry	none	none	none
Breeding 2022	12/05/2022	4	3	3.00	1140	PH	DR	4-6	S	Good - Moderate	6-8	11-12	damp/wet	occasional showers	none	occasional heavy rain/showers
Breeding 2022	30/05/2022	4	4	3.00	1050	none	DR	2-3	W	Good - Moderate	7-8	8	dry/damp/wet	showers	none	none
Breeding 2022	14/06/2022	4	5	3.00	945	none	DR	3-4	S	Good	8	12	damp/wet	occasional drizzle	None	none
Breeding 2022	26/06/2022	4	6	3.00	1200	LB K	DR	3-4	SW	Good	7-8	12	Dry/Damp	occasional showers	None	none
Breeding 2022	13/07/2022	4	7	3.00	750	PH MA	DR	1-3	W	Good	1-5	11-13	Dry	none	turf cutting	none
Breeding 2022	17/07/2022	4	8	3.00	1240	BZ SI	DR	2-4	S	Good	1-2	23-25	Dry	none	None	none
Breeding 2022	31/07/2022	4	9	3.00	1450	K	DR	2-4	N	Good	4-6	17	Dry	none	None	none
Breeding 2022	16/08/2022	4	10	3.00	915	none	DR	4-5	N	Good	7-8	12-13	Dry/Damp	none	none	none
Breeding 2022	18/08/2022	4	11	3.00	700	LB	DR	1-2		Moderate	8	14	wet	none	none	clear early then LCB as above
Breeding 2022	25/08/2022	4	12	3.00	1005	none	DR	2-3	S	Good	5-8	15	Damp	none	none	none

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2022	31/08/2022	4	13	1.00	1150	none	DR	1-3	NE	Good	5-6	16	Dry	none	none	none
Non-breeding 2022-23	13/12/2022	1	1	2.50	1015	None	DL	2	N	Good	2	0	frozen	None	None	none
Non-breeding 2022-23	14/12/2022	1	2	3.25	1330	HH	DL	1	NE	Good	1-4	-1	frozen	None	None	none
Non-breeding 2022-23	06/01/2023	1	3	3.00	935	None	DR	1-3	S	Good - Moderate	6-8	6	Damp	None	None	Low cloud initially
Non-breeding 2022-23	17/01/2023	1	4	3.00	1300	None	DL	4	NW	Good	4-8	0	frosty	Snow / Hail	None	Snow / Hail
Non-breeding 2022-23	19/01/2023	1	5	3.00	1315	HH	DR	1	-	Good	1-2	1-2	snow/ice	None	None	None
Non-breeding 2022-23	27/01/2023	1	6	3.00	1015	None	DR	1-2	SW	Good	7-8	7	Damp	None	None	none
Non-breeding 2022-23	08/02/2023	1	7	3.00	1330	None	DR	4-5	SW	Good	8	6	Damp	Mostly Dry	7 forestry workers planting on site	None
Non-breeding 2022-23	13/02/2023	1	8	3.00	1300	K	DL	3	SSE	Good	1-3	10	Dry	None	None	None
Non-breeding 2022-23	22/02/2023	1	9	3.00	1200	BZ	DR	3-4	SW	Good	5-8	4	Wet/Dry	Showers at start	None	None
Non-breeding 2022-23	26/02/2023	1	10	3.00	1420	K	DR	3-4	SE	Good	3-4	3	Dry/Damp	None	None	None
Non-breeding 2022-23	14/03/2023	1	11	3.00	830	None	DR	3-4	W	Good - Moderate	7-8	0	Wet/Damp	Some drizzle/showers	None	Some light mist when drizzly/rain
Non-breeding 2022-23	16/03/2023	1	12	3.00	945	None	DR	3-4	S	Good - Moderate	6-8	11	Damp/Wet	Drizzle at first	None	Drizzle/Mist at start
Non-breeding 2022-23	20/03/2023	1	13	0.25	830	None	DR	-	-	Moderate	8	9	Wet	Drizzle	None	Misty/Drizzle
Non-breeding 2022-23	13/12/2022	2	1	3.00	1300	None	DL	1	N	Good - Moderate	3	1	Frozen	None	None	fog haze visibility mod-good
Non-breeding 2022-23	06/01/2023	2	2	3.00	1250	None	DR	2-4	S	Good	4-8	5	Damp	from 1500	None	none
Non-breeding 2022-23	17/01/2023	2	3	3.00	915	None	DL	3	WNW	Good	7	-2	frozen	snow	None	snow showers
Non-breeding 2022-23	19/01/2023	2	4	3.00	945	None	DR	1		Good	2-6	0-1	snow/ice	None	None	none until 1040(mist/thick fog)
Non-breeding 2022-23	27/01/2023	2	5	3.00	1330	none	DR	1-3	SW	Good	8	5	Dry	None	None	None
Non-breeding 2022-23	08/02/2023	2	6	3.00	1015	None	DR	4-5	SW	Good	8	5	Dry	None	None	None
Non-breeding 2022-23	13/02/2023	2	7	3.00	915	None	DL	4	SSE	Good	1-3	6	Dry	None	None	A little glare at start of survey but vis good.
Non-breeding 2022-23	22/02/2023	2	8	3.00	830	HH	DR	1-4	SW/W	Mod/Good	5-8	2	Wet/Damp	Occasional. Heavy/light showers	None	None
Non-breeding 2022-23	26/02/2023	2	9	3.00	1100	BH, CU	DR	2-4	SE	Good	3-7	5	Damp/Dry	None	None	None
Non-breeding 2022-23	09/03/2023	2	10	3.00	915	CM, CU	DR	3-4	E	Mod	8	0	Wet	Snow(light)	None	Low cloud/Light sleety snow

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Non-breeding 2022-23	14/03/20 23	2	11	3.00	1500	None	DR	3-4	NW	Good/Mod	4-6	5	Wet/Damp	None	None	None
Non-breeding 2022-23	20/03/20 23	2	12	3.00	900	GP, SN	DR	2-3	S	Mod/Good	8	10	Wet	Early mist	None	Mist early on
Non-breeding 2022-23	15/12/20 22	3	1	3.00	1015	None	DL	1	NNW	Good	1	-2	Frozen	None	None	Light sun glare at start
Non-breeding 2022-23	04/01/20 23	3	2	3.00	1305	None	DR	4-5	S	Good/Mod	7-8	8	Wet	occasional drizzle	None	none
Non-breeding 2022-23	12/01/20 23	3	3	3.00	945	LB	DR	4-5	SW	Good/Mod	7-8	7	Wet	Intermittent all day	None	some low cloud around 1200
Non-breeding 2022-23	26/01/20 23	3	4	3.00	1015	None	DR	1-2		Good	7-8	5	Damp	None	None	none
Non-breeding 2022-23	30/01/20 23	3	5	3.00	1025	None	DR	2-3	SW	Good	7-8	7	Damp	None	none	none
Non-breeding 2022-23	07/02/20 23	3	6	3.00	1015	HH, SN	DR	0		Moderate	4-8	6	Wet	Some drizzle	None	Low cloud base initially
Non-breeding 2022-23	09/02/20 23	3	7	3.00	1345	None	DR	1		Good	6-7	5	Wet/Damp	None	None	None
Non-breeding 2022-23	21/02/20 23	3	8	3.00	845	SN	DR	3-4	SW	Good/Mod	7-8	7	Wet/Damp	Mostly drizzle, some dry	None	None
Non-breeding 2022-23	23/02/20 23	3	9	3.00	1300	None	DR	2-3	NW	Mod/Good	7-8	7	Wet/Damp	heavy showers occasionally	None	None
Non-breeding 2022-23	09/03/20 23	3	10	3.00	1245	MA	DR	2-4	E	Mod/Poor	8	0	Wet	Snow	None	Snow shower after 1435
Non-breeding 2022-23	16/03/20 23	3	11	3.00	1300	MA	DR	3-4	SW	Good	6-8	10	Wet	Some showers	None	None
Non-breeding 2022-23	20/03/20 23	3	12	3.00	1515	MA, BH	DR	2-3	S	Moderate	8	10	Wet	Rain/drizzle	None	Drizzle
Non-breeding 2022-23	14/12/20 22	4	1	3.00	1000	ML, HH	DL	1	NE	Good	1	-1	Frozen	None	None	a little sun glare and visibility good
Non-breeding 2022-23	15/12/20 22	4	2	3.00	1330	HH, ML	DL	2	NNW		1	-1	Frozen	None	None	Sun glare from the west
Non-breeding 2022-23	04/01/20 23	4	3	3.00	935	None	DR	3-5	S-SW	Moderate - Poor	6-8	8	Damp/Wet	some drizzle	None	low cloud due to drizzle
Non-breeding 2022-23	12/01/20 23	4	4	3.00	1305	BH	DR	4-6	SW	Good/Mod	4-6	7	Wet	Intermittent all day	None	some low clouds
Non-breeding 2022-23	26/01/20 23	4	5	3.00	1330	None	DR	1	-	Good	7-8	4	Damp	None	None	None
Non-breeding 2022-23	30/01/20 23	4	6	3.00	1330	None	DR	3-4	SW	Good	8	7	Damp	None	None	None
Non-breeding 2022-23	07/02/20 23	4	7	3.00	1345	SN	DR	2-4	SW	Good	6-7	6	Damp	None	None	None
Non-breeding 2022-23	09/02/20 23	4	8	3.00	1015	HH	DR	3-4	SW	Good	5-8	6	Damp	Mostly at start	None	None
Non-breeding 2022-23	21/02/20 23	4	9	3.00	1200	SN	DR	3-4	SW	Good/Mod	8	8	Wet/Damp	Light drizzle	None	Drizzle/low cloud at times
Non-breeding 2022-23	23/02/20 23	4	10	3.00	945	MA	DR	1-3	NW	Good	6-8	6	Damp/Wet	Occasional	None	None
Non-breeding 2022-23	13/03/20 23	4	11	3.00	1115	MA	DR	3-4	NW	Good/Mod	6-8	4	Damp/Wet	Early on	None	Sporadic rain/mist
Non-breeding 2022-23	19/03/20 23	4	12	3.00	1430	None	DR	3-4	S	Moderate	8	7	Damp/Wet	Rain	None	Rain and drizzle most of the afternoon
Breeding 2023	04/04/20 23	1	1	3.00	1000	MA, K	DR	3-4	S	Good	7-8	8	Dry	None	None	None

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2023	19/04/2023	1	2	3.00	1245	LB, K	DR	3-4	E	Good	7-8	9	Damp	None	None	None
Breeding 2023	05/05/2023	1	3	3.00	1330	None	DR	2-4	S	Good	3-8	9	Dry/Damp	Early on	None	None
Breeding 2023	11/05/2023	1	4	3.00	1030	None	DR	3-4	NW	Good	7-8	11	Wet	Intermittent	None	None
Breeding 2023	21/06/2023	1	5	3.00	900	SN BH	DR	1-2	-	Good	4-8	14	Wet	Light/Heavy Rain from 0955	None	Low cloud when heavy rain
Breeding 2023	28/06/2023	1	6	3.00	1445	K	DR	2-4	NW	Good	5-7	18	Wet/Damp	None	None	None
Breeding 2023	04/07/2023	1	7	3.00	1620	LB	DR	2-3	W	Good	6-8	12	Damp/wet	At start	none	None
Breeding 2023	11/07/2023	1	8	3.00	1520	SH	DR	2-4	NW	Good	5-7	15	Damp	None	None	None
Breeding 2023	11/08/2023	1	9	3.00	1310	K	DR	3-4	S	Good	6-8	16	Damp/Wet	Showers	None	None
Breeding 2023	22/08/2023	1	10	3.00	1045	K	DR	3-4	SW	Good-Moderate	6-8	16	Wet/ Damp	Intermittent	None	Low cloud early on
Breeding 2023	31/08/2023	1	11	3.00	1330	K	DR	1-2	-	Good	5-8	17	Damp	Occasional	None	None
Breeding 2023	06/04/2023	2	1	3.00	1130	MA	DR	2-4	NW	Good	5	8	Damp/Wet	Occasional showers	None	None
Breeding 2023	20/04/2023	2	2	3.00	1300	K	DR	3-4	E	Good	0-1	11	Dry/Damp	None	None	None
Breeding 2023	02/05/2023	2	3	3.00	1430	None	DR	2-4	S	Good	7-8	15	Damp	None	None	None
Breeding 2023	12/05/2023	2	4	3.00	1330	None	DR	1	-	Good	1	15	Dry/Damp	None	None	None
Breeding 2023	09/06/2023	2	5	3.00	1015	SI	DR	2-3	E	Good	1-2	15	Dry	None	None	None
Breeding 2023	20/06/2023	2	6	3.00	1545	None	DR	0-2	SW	Good	5-8	18	Wet	Some heavy storms	None	None
Breeding 2023	06/07/2023	2	7	3.00	1535	LB	DR	3-5	S	Moderate	8	11	Wet	Sporadic dry/rain	None	Low cloud & rain
Breeding 2023	12/07/2023	2	8	3.00	1510	LB	DR	2-4	NW	Good	6-8	14	Damp	A little at start	None	None
Breeding 2023	11/08/2023	2	9	3.00	1000	None	DR	3-5	S	Good	6-8	16	Damp/Wet	Showers	None	None
Breeding 2023	22/08/2023	2	10	3.00	1400	None	DR	2-4	SW	Good-Moderate	6-8	14	Damp	Occasional	None	None
Breeding 2023	31/08/2023	2	11	3.00	1000	None	DR	1-2	S	Good-Moderate	4-8	15	Damp	Drizzle at start	None	Misty at start
Breeding 2023	06/04/2023	3	1	3.00	1445	MA	DR	2-4	NW	Good	5-7	7	Damp/Wet	Shower	None	None
Breeding 2023	25/04/2023	3	2	3.00	1400	None	DR	2-3	SE	Good	6-8	10	Dry/Damp	None	None	None
Breeding 2023	02/05/2023	3	3	3.00	815	K	DR	2-3	SE	Moderate	8	10	Wet	None	None	Low cloud initially but cleared later
Breeding 2023	22/05/2023	3	4	3.00	1545	None	DR	2-4	N	Good	3-5	13	Dry	None	None	None
Breeding 2023	27/06/2023	3	5	3.00	1445	None	DR	2-4	SW	Good	8	16	Damp/Wet	Drizzle/ light rain occasional	None	Low cloud from around 1500
Breeding 2023	28/06/2023	3	6	3.00	830	LB	DR	2-3	NW	Good	5-8	19	Wet/Damp	Until 0900	None	None

Season	Date	V P	Visit no	Duration(hr)	Start Time	Target Species	Surveyor initials	Wind Force	Wind direction	Visibility	Cloud (oktas)	Temp (C)	Ground Cond	Rain	Disturbance	Factors affecting visibility
Breeding 2023	05/07/2023	3	7	3.00	925	None	DR	2	N/A	Moderate-Poor	8	11	Wet	Light/drizzle/medium	None	Low cloud initially
Breeding 2023	12/07/2023	3	8	3.00	900	None	DR	2-4	NW	Good	5-8	15	Damp	Very occasional	None	None
Breeding 2023	10/08/2023	3	9	3.00	1010	SI	DR	3-4	S	Good	4-6	20	Damp	None	Turfing until 1145	None
Breeding 2023	18/08/2023	3	10	3.00	1335	K	DR	3-4	SW	Good	8	16	Damp	Occasional drizzle	None	None
Breeding 2023	30/08/2023	3	11	3.00	930	None	DR	1-2	-	Good-Moderate	7-8	14	Damp	Light drizzle at start	None	None
Breeding 2023	17/04/2023	4	1	3.00	1015	None	DR	2-3	S	Good	3-4	13	Dry/Damp	None	None	None
Breeding 2023	23/04/2023	4	2	3.00	1500	None	DR	1-4	N	Good	4-7	11	Dry/Damp	None	None	None
Breeding 2023	07/05/2023	4	3	3.00	1300	MA	DR	3-5	S	Good	4-8	9	Dry/Damp	Occasional showers	None	None
Breeding 2023	30/05/2023	4	4	3.00	930	None	DR	2-3	NE	Good	0	17	Dry	None	None	None
Breeding 2023	27/06/2023	4	5	3.00	1130	LB	DR	3-4	SW	Good	8	17	Damp	Light sporadic rain	None	None
Breeding 2023	29/06/2023	4	6	3.00	1130	LB K	DR	3-4	SW	Good	6-7	17	Damp	None	None	None
Breeding 2023	09/07/2023	4	7	3.00	1200	K, LB, MA	DR	2-4	S	Good	7-8	16	Damp/dry	Occasional	None	None
Breeding 2023	25/07/2023	4	8	3.00	1240	K	DR	1-3	W	Good	6-7	15	Damp/Dry	None	None	None
Breeding 2023	10/08/2023	4	9	3.00	1330	None	DR	3-4	S	Good	7-8	18	Damp	Very light around 1515	None	None
Breeding 2023	18/08/2023	4	10	3.00	1015	SH CU	DR	3-5	SE	Good	7-8	16	Damp	Mild drizzle at start	None	None
Breeding 2023	30/08/2023	4	11	3.00	1250	None	DR	1	-	Good	8	16	Damp	None	None	None
Breeding 2023	05/09/2023	1	12	3.00	1045	K	DR	3-4	E	Good	3-5	21	Damp/dry	none	None	None
Breeding 2023	05/09/2023	2	12	3.00	1400	none	DR	3-5	E	Good	3-5	21	Damp/Dry	10 minute light rain	None	None
Breeding 2023	04/09/2023	3	12	3.00	1410	none	DR	1-3	SE	Good	1-2	21	Damp/Dry	none	None	None
Breeding 2023	04/09/2023	4	12	3.00	1050	SH	DR	1-3	SE	Mod-Good	1-4	20	Damp/Dry	none	None	None

Table 1: Vantage Point Survey Effort

2.0 SURVEY EFFORT DUSK

Season	Visit	Date	Start time	End time	Surveyor	Wind Force	Wind Direction	Cloud (oktas)	Temp. (C)	Rain	Visibility	Ground conditions	Disturbance factors
Breeding season 2020	1	10/06/2020	1925	2248	ROD	3	NW	6	6	None			
Breeding season 2021	1	16/06/2021	2116	2318	PD	3	NW	3	11	None	Good	Dry	None
Breeding season 2021	2	29/06/2021	2140	2329	PD	3	S	4	11	None	Good	Damp	None
Breeding season 2022	1	23/03/2022	1810	1940	DR	1-2	S	5-6	10	None	Good	Dry	None
Breeding season 2022	2	29/03/2022	1820	1950	DR	1-2	W	2-3	6	None	Good	Damp	None

Breeding season 2022	3	17/08/2022	2030	2230	DR	3-4	N	7-8	14	None	Good	Dry	None
Breeding season 2022	4	31/08/2022	2015	2115	DR	2	NE	1	16	None	Good		

Table 2: Dusk Survey Effort

3.0 SURVEY EFFORT WALK OVER

Season	Season N	Date	Visit	Start time	End time	Duration	Surveyor	Wind Force	Wind Direction	Cloud (oktas)	Temp. (C)	Rain
Non-breeding season 2019-20	1	06/12/2019	1	839	1118	2.66	MH	4	SW-NW	3-8	10	Showers
Non-breeding season 2019-20	1	12/01/2020	2	930	1330	4	MH	2	SW	2	3-6	Occasional light rain showers
Non-breeding season 2019-20	1	07/02/2020	3	849	1115	2.42	KW	4	NW	8	4-5	Light rain
Breeding season 2020	2	07/05/2020	1	513	835	3.33	KW	3	SW	7	8-9	Light rain
Breeding season 2020	2	07/05/2020	2	2000	2211	2.16	KW	3	SW	7	10-11	Light rain
Breeding season 2020	2	10/06/2020	3	1925	2248	3.33	KW	3	NW	6	9	None
Breeding season 2020	2	11/06/2020	4	1910	2157	2.75	KW	4	NE	5-6	12	None
Breeding season 2020	2	21/07/2020	5	1940	2110	1.5	KW	1	SW	8	14-16	Showers
Breeding season 2020	2	22/07/2020	6	1934	2050	1.25	KW	2-3	SW	8	14-16	Showers
Breeding season 2020	2	23/07/2020	7	1716	1850	1.6	KW	1-2	NW	8	14-18	None
Non-breeding season 2020-21	3	23/10/2020	1	1100	1645	5.75	JB	2-3	SW	3	8-10	Showers
Non-breeding season 2020-21	3	11/12/2020	2	815	1528	7.25	JB	2-3	W	7	6-8	None
Non-breeding season 2020-21	3	27/02/2021	3	900	1705	8.00	JB	2	S	7	8-11	Drizzle
Breeding season 2021	4	16/06/2021	1	1230	1830	6.00	PD	3-4	W-NW	5	12-14	Light showers
Breeding season 2021	4	24/06/2021	2	1330	1930	6.00	PD	4	SE-E	8	13-15	Heavy rain
Breeding season 2021	4	05/07/2021	3	1300	1900	6.00	JB	3	W	8	15-18	Showers
Breeding season 2021	4	07/07/2021	4	945	1545	6.00	JB	3	NW	1	15-17	None
Non-breeding season 2021-22	5	01/12/2021	1	942	1245	3.00	DR	6	SW	5	5	Showers
Non-breeding season 2021-22	5	03/12/2021	2	1113	1613	5.00	DR	1-3	SW	5-8	6	None
Non-breeding season 2021-22	5	26/01/2022	3	1042	1542	5.00	DR	4	NW	8	8	Showers
Non-breeding season 2021-22	5	28/01/2022	4	1226	1534	3.00	DR	4	SW	8	8	None
Non-breeding season 2021-22	5	03/03/2022	5	1134	1651	5.00	DR	2	W	5	4	Showers
Breeding season 2022	6	04/05/2022	1	800	1100	3.00	DR	3	N	7	8	None
Breeding season 2022	6	10/05/2022	2	1111	1411	3.00	DR	3	W	5	11	Showers
Breeding season 2022	6	12/05/2022	3	1339	1610	2.50	DR	4	S	7	11	Drizzle
Breeding season 2022	6	16/05/2022	4	1740	1840	1.00	DR	3	S	7	11	Showers
Breeding season 2022	6	24/05/2022	5	1545	1845	3.00	DR	5	NW	6	11	None
Breeding season 2022	6	02/06/2022	6	1304	1604	3.00	DR	2	WNW	7	12	Showers
Breeding season 2022	6	14/06/2022	7	1147	1451	3.00	DR	3	S	7	13	None
Breeding season 2022	6	22/06/2022	8	842	1139	3.00	DR	2	WSW	8	2	None
Breeding season 2022	6	29/06/2022	9	925	1234	3.00	DR	2	WNW	7	2	Showers
Breeding season 2022	6	03/08/2022	10	1302	1600	3.00	DR	4	W	8	4	Showers
Breeding season 2022	6	16/08/2022	11	1117	1416	3.00	DR	4	N	7	4	None
Breeding season 2022	6	24/08/2022	12	803	1102	3.00	DR	4	S	4	4	None
Breeding season 2022	6	25/08/2022	13	1220	1518	3.00	DR	3	S	7	3	Showers
Breeding season 2022	6	31/08/2022	14	1531	1831	3.00	DR	2	NE	4	2	None
Non-breeding season 2022-23	7	23/01/2023	1	945	1500	5.00	DL					

Season	Season N	Date	Visit	Start time	End time	Duration	Surveyor	Wind Force	Wind Direction	Cloud (oktas)	Temp. (C)	Rain
Non-breeding season 2022-23	7	25/01/2023	2	1000	1630	5.00	DL					
Non-breeding season 2022-23	7	31/01/2023	3	1100	1330	2.50	DR	5	-	7	7	None
Non-breeding season 2022-23	7	09/02/2023	4	930	1600	6.50	DR?					
Non-breeding season 2022-23	7	13/03/2023	5	815	1115	3.00	DR	3	NW	7	5	Showers
Non-breeding season 2022-23	7	14/03/2023	6	1145	1445	3.00	DR	3	NW	7	5	Showers
Non-breeding season 2022-23	7	19/03/2023	7	1115	1445	3.00	DR	2	-	8	4	Showers
Non-breeding season 2022-23	7	20/03/2023	8	1215	1515	3.00	DR	2	SE	8	11	None
Breeding season 2023	8	17/04/2023	1	1215	1515	3.00	DR	3	Very variable	3	11	None
Breeding season 2023	8	18/04/2023	2	915	1215	3.00	DR	3	SE	4	13	None
Breeding season 2023	8	20/04/2023	3	845	1145	3.00	DR	3	E	0	11	None
Breeding season 2023	8	25/04/2023	4	945	1245	3.00	DR	2	Very variable	5	11	None
Breeding season 2023	8	02/05/2023	5	1015	1315	3.00	DR	3	SE	7	16	None
Breeding season 2023	8	12/05/2023	6	915	1215	3.00	DR	1	Very variable	2	16	None
Breeding season 2023	8	22/05/2023	7	830	1130	3.00	DR	3	NW	4	12	None
Breeding season 2023	8	30/05/2023	8	1130	1430	3.00	DR	2	NE	0	15	None
Breeding season 2023	8	09/06/2023	9	1215	1515	3.00	DR	3	E	1	18	None
Breeding season 2023	8	19/06/2023	10	1345	1645	3.00	DR	3	SW	4	19	None
Breeding season 2023	8	20/06/2023	11	930	1230	3.00	DR	2	SW	3	18	None
Breeding season 2023	8	21/06/2023	12									
Breeding season 2023	8	04/07/2023	13	1015	1315	3.00	DR	3	W	5	14	None
Breeding season 2023	8	09/07/2023	14	845	1145	3.00	DR	2	Very variable	4	16	Light showers
Breeding season 2023	8	11/07/2023	15	900	1200	3.00	DR	2	NW	5	15	-
Breeding season 2023	8	25/07/2023	16	930	1230	3.00	DR	1	Very variable	6	14	None

Table 3: Walkover Survey Effort

4.0 SURVEY EFFORT WATERBIRD

Season	Season	Visit	Date	Surveyor	Wind Force	Wind Direction	Cloud (oktas)	Temp. (C)	Rain
Non-breeding 2019-20	1	1	07/11/2019	KW	3	N	5-6	5	None
Non-breeding 2019-20	1	2	14/11/2019	KW	3-4	NNE	4-5	3-4	None
Non-breeding 2019-20	1	3	10/12/2019	KW	5	WNW	7-8	5-6	Light showers
Non-breeding 2019-20	1	4	11/01/2020	KW	4	SSW	7-8	5-6	Light showers
Non-breeding 2020-21	2	1	15/10/2020	KW	2	SE	1	13	None
Non-breeding 2020-21	2	2	09/11/2020	JB	4	S	6	12-15	Light showers
Non-breeding 2020-21	2	3	09/12/2020	JB	3	SE	8	5-6	Light showers
Non-breeding 2020-21	2	4	06/01/2021	JB	1	N	1	3-6	None
Non-breeding 2020-21	2	5	08/02/2021	JB	3	E	8	3-4	None
Non-breeding 2020-21	2	6	07/03/2021	JB	1	S	8	3-8	None

Table 4: Waterbird Survey Effort

5.0 SURVEY EFFORT HEN HARRIER NON-BREEDING SEASON

Season	Observer	Date	Visit	Time	Duration	Sunset/Sunrise	Lat.	Long.	Wind force	Precipitation	Temp
Non-breeding season 2019-20	MH	12/01/2020	1	1620	60	1637	53.94215	-8.60835	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2020-21	JB	21/10/2020	1	1710	115	1815	53.95132	-8.62035	0-3	Dry	Mild
Non-breeding season 2020-21	JB	22/10/2020	2	1710	100	1813	53.93471	-8.59536	0-3	Dry	Mild
Non-breeding season 2020-21	JB	07/11/2020	3	1530	100	1647	53.936	-8.58	0-3	Dry	Mild
Non-breeding season 2020-21	JB	08/11/2020	4	1515	120	1646	53.954	-8.57	0-3	Dry	Mild
Non-breeding season 2020-21	JB	09/12/2020	5	1445	115	1602	53.55534	-8.34389	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2020-21	DB	11/12/2020	6	1435	140	1601	53.93846	-8.58972	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2020-21	JB	11/12/2020	6	1435	140	1601	53.93898	-8.58762	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2020-21	JB	12/12/2020	7	1450	120	1601	53.94611	-8.58288	0-3	Dry	Cool
Non-breeding season 2020-21	DB	12/12/2020	7	1500	120	1601	53.93618	-8.53173	0-3	Dry	Cool
Non-breeding season 2020-21	DB	06/01/2021	8	1510	115	1619	53.93625	-8.58297	0-3	Dry	Cold
Non-breeding season 2020-21	JB	06/01/2021	8	1510	115	1619	53.94091	-8.58006	0-3	Dry	Cold
Non-breeding season 2020-21	JB	07/01/2021	9	750	100	854	53.94091	-8.58006	0-3	Dry	Cold
Non-breeding season 2020-21	DB	07/01/2021	9	750	100	854	53.93625	-8.58297	0-3	Dry	Cold
Non-breeding season 2020-21	JB	08/01/2021	10	1515	105	1422	53.95592	-8.58298	0-3	Dry	Cold
Non-breeding season 2020-21	DB	08/01/2021	10	1515	105	1422	53.95592	-8.58298	0-3	Dry	Cold
Non-breeding season 2020-21	DB	06/02/2021	11	1610	105	1720	53.9458	-8.58537	0-3	Dry	Cool
Non-breeding season 2020-21	JB	06/02/2021	11	1610	105	1720	53.9454	-8.5846	0-3	Dry	Cool
Non-breeding season 2020-21	JB	08/02/2021	12	1545	135	1722	53.95118	-8.62088	0-3	light snow flurry at start watch	Cold
Non-breeding season 2020-21	DB	09/02/2021	13	730	105	800	53.93687	-8.58159	0-3	Dry	Cold
Non-breeding season 2020-21	JB	09/02/2021	13	730	105	800	53.94056	-8.58098	0-3	Dry	Cold
Non-breeding season 2020-21	JB	25/02/2021	14	1630	125	1800	54.95	-8.62	0-3	Dry	Mild
Non-breeding season 2020-21	DB	25/02/2021	14	1640	110	1800	53.936	-8.581	0-3	Dry	Mild
Non-breeding season 2020-21	JB	06/03/2021	15	1700	120	1826	53.95044	-8.61964	0-3	Dry	Cool
Non-breeding season 2020-21	DB	06/03/2021	15	1710	105	1826	53.93673	-8.58129	0-3	Dry	Cool
Non-breeding season 2020-21	JB	07/03/2021	16	1700	110	1826	53.95775	-8.57924	0-3	Dry	Cool
Non-breeding season 2021-22	PD	20/10/2021	1	1700	120	1829	53.93218	-8.58991	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2021-22	PD	21/10/2021	2	740	120	811	53.94686	-8.58451	0-3	Intermittent/Drizzle	Cold

Season	Observer	Date	Visit	Time	Duration	Sunset/Sunrise	Lat.	Long.	Wind force	Precipitation	Temp
Non-breeding season 2021-22	DR	23/11/2021	3	1530	90	1639	53.95771	-8.57884	0-3	Dry	Cold
Non-breeding season 2021-22	DR	24/11/2021	4	1520	90	1628	53.957	-8.579	0-3	Intermittent/Drizzle	Cold
Non-breeding season 2021-22	DR	09/12/2021	5	1515	60	1610	53.93279	-8.59745	0-3	Dry	Cold
Non-breeding season 2021-22	DR	13/12/2021	6	1520	60	1610	53.96768	-8.57944	0-3	Dry	Cold
Non-breeding season 2021-22	DR	14/12/2021	7	1500	60	1620	53.93279	-8.59745	4-6	Dry	Cold
Non-breeding season 2021-22	DR	12/01/2022	8	1600	90	1600			0-3	Dry	Cold
Non-breeding season 2021-22	DR	18/01/2022	9	1510	60	1625	53.93273	-8.59727	0-3	Intermittent/Drizzle	Cold
Non-breeding season 2021-22	AM	19/01/2022	10	1530	120	1652	53.95656	-8.57448	0-3	Dry	Cold
Non-breeding season 2021-22	JOC	19/01/2022	10	1604	90	1652	53.93636	-8.5815	0-3	Dry	Cold
Non-breeding season 2021-22	JOC	20/01/2022	11	802	90	840	53.95133	-8.62077	0-3	Dry	Cold
Non-breeding season 2021-22	AM	20/01/2022	11	810	80	840	53.93636	-8.5815	0-3	Dry	Cold
Non-breeding season 2021-22	DR	20/01/2022	12	1615	60	1650	53.93626	-8.58309	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2021-22	DR	26/01/2022	13	1600	60	1650	53.95096	-8.62131	4-6	Intermittent/Drizzle	Cold
Non-breeding season 2021-22	GO	26/01/2022	14	1625	140	1650	53.93626	-8.58656	4-6	Dry	Cool
Non-breeding season 2021-22	GO	27/01/2022	15	1659	70	1711	53.93636	-8.5815	0-3	Dry	Cool
Non-breeding season 2021-22	DR	28/01/2022	16	1530	60	1640	53.95468	-8.57956	7-9	Dry	Cool
Non-breeding season 2021-22	DR	11/02/2022	17	1610	90	1730	53.93593	-8.5865	4-6	Intermittent/Drizzle	Cold
Non-breeding season 2021-22	GO	21/02/2022	18	1715	90	1754	53.9578	-8.5801	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2021-22	GO	22/02/2022	19	1705	80	1756	53.9578	-8.5801	4-6	Dry	Cool
Non-breeding season 2021-22	DR	28/02/2022	20	1700	90	1804	53.93664	-8.58087	0-3	Dry	Cold
Non-breeding season 2021-22	AM	01/03/2022	21	1710	90	1811			0-3	Dry	Cool
Non-breeding season 2021-22	JOC	01/03/2022	21	1755	60	1811	53.951	-8.621	0-3		Cold
Non-breeding season 2021-22	DR	03/03/2022	22	1715	90	1803	53.93813	-8.59107	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2022-23	DL	14/12/2022	1	1530	85	1612	53.93453	-8.59778	-	-	-
Non-breeding season 2022-23	DL	15/12/2022	2	1515	90	1612	VP4	VP4	0-3	Dry	Very cold
Non-breeding season 2022-23	DL	17/01/2023	3	1600	90		53.93453	-8.59778	4-6	Snow	Very cold
Non-breeding season 2022-23	DL	23/01/2023	4	1600	90		VP4	VP4	0-3	Dry	Cool
Non-breeding season 2022-23	DL	25/01/2023	5	800	85		VP4	VP4	4-6	Intermittent/Drizzle	Cool
Non-breeding season 2022-23	DL	25/01/2023	6	1615	85		53.93694	-8.57919	0-3	Dry	Cool
Non-breeding season 2022-23	DL	09/02/2023	7	1645	90	1731	53.95084	-8.61362	0-3	Dry	Cool
Non-breeding season 2022-23	DL	13/02/2023	8	730	90	758	53.9579	-8.61047	0-3	Dry	Cool
Non-breeding season 2022-23	DL	13/02/2023	9	1645	90	1738	53.95725	-8.57546	0-3	Dry	Cool
Non-breeding season 2022-23	DL	15/02/2023	10	1645	90	1743	53.93453	-8.59778	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2024-25	DL	24/10/2024	1	1730	90	1815	53.95739	-8.57698	4-6	Intermittent/Drizzle	Mild
Non-breeding season 2024-25	AW+SPO	24/10/2024	2	1735	85	1815	53.95211	-8.61577	0-3	Intermittent/Drizzle	Cool
Non-breeding season 2024-25	CB+AS	24/10/2024	3	1800	60	1815	53.95079	-8.61068	0-3	Dry	Mild
Non-breeding season 2024-25	DL	21/11/2024	4	1550	120	1626	53.95271	-8.61554	0-3	Snow	Very Cold
Non-breeding season 2024-25	AJ+SP	21/11/2024	5	1620	50	1626	53.9351	-8.59879	0-3		Very cold
Non-breeding season 2024-25	AJ	09/01/2025	6	1620	60	1634	53.93816	-8.59609	0-3	Snow	Very cold
Non-breeding season 2024-25	SP	09/01/2025	7	1620	60	1634	53.93567	-8.60068	0-4	Snow	Very cold
Non-breeding season 2024-25	BM+CB+LMcS	09/01/2025	8	1620	60	1634	53.9502	-8.61192	0-5	Snow	Very cold
Non-breeding season 2024-25	JOC	17/01/2025	9	1635	45	1652	53.93668	-8.58046	0-3	Dry	Cold
Non-breeding season 2024-25	BM	29/01/2025	10	1630	70	1708	53.93671	-8.58045	0-3	Dry	Cold
Non-breeding season 2024-25	LMcS + DL	29/01/2025	11	1630	70	1708	53.93432	-8.60272	0-3	Dry	Cold

Season	Observer	Date	Visit	Time	Duration	Sunset/Sunrise	Lat.	Long.	Wind force	Precipitation	Temp
Non-breeding season 2024-25	SP	29/01/2025	12	1630	70	1708	53.95213	-8.61448	0-3	Dry	Cold
Non-breeding season 2024-25	BM	24/02/2025	13	1700	90	1802	53.93695	-8.58268	4-6	Drizzle	Cold
Non-breeding season 2024-25	CB	24/02/2025	14	1700	90	1802	53.9355	-8.60175	4-6	Drizzle	Cold
Non-breeding season 2024-25	LMcS	24/02/2025	15	1700	90	1802	53.93446	-8.60278	4-6	Drizzle	Cold
Non-breeding season 2024-25	SPO + DL	24/02/2025	16	1700	90	1802	53.93438	-8.60294	4-6	Drizzle	Cold
Non-breeding season 2024-25	BM+CB	12/03/2025	17	1750	90	1831	53.93438	-8.60294	0-3	None	Cold
Non-breeding season 2024-25	LMcS	12/03/2025	19	1750	90	1831	53.93695	-8.58268	0-3	None	Cold
Non-breeding season 2024-25	SPO + JB	12/03/2025	20	1750	90	1831	53.93446	-8.60278	0-3	None	Cold

Table 5: Hen harrier Non-breeding Season Survey Effort

6.0 SURVEY EFFORT BREEDING RAPTOR

Season	Visit	Date	Start time	End time	Surveyor	Wind Force	Wind Dir	Cloud (oktas)	Temp. (C)	Rain	Visibility	Ground conditions	Disturbance	Disturbance Factors
Breeding season 2020	1	26/03/2020			KW									
Breeding season 2020	2	27/03/2020			KW									
Breeding season 2020	3	05/05/2020			KW									
Breeding season 2020	4	06/05/2020			KW									
Breeding season 2020	6	10/06/2020			KW									
Breeding season 2020	7	25/06/2020			KW	1	N	3-4	19-25	None				
Breeding season 2020	8	26/06/2020			KW	1	SE	8	17-18	Fog				
Breeding season 2020	9	22/07/2020			KW	2-3	SW	8	15-18	Showers				
Breeding season 2020	10	24/07/2020			KW	2	SE	8	13-14	Showers				
Breeding season 2021	1	23/03/2021	0330	0700	JB	3		4	6-8	None				
Breeding season 2021	2	24/03/2021	0700	0930	JB	3		6	4-7	None				
Breeding season 2021	3	24/05/2021	1230	1900	PD	4	NE-SE	5-6	10-11	Light showers				
Breeding season 2021	4	26/05/2021	1330	1730	PD	2	S	5	12-13	None				
Breeding season 2021	5	28/05/2021	0745	1100	PD	2	NE	7	8-9	None				
Breeding season 2021	6	06/07/2021	0915	1530	JB	3	NW	8	16-17	Light showers				
Breeding season 2021	7	07/07/2021	1640	1920	JB	3	NW	8	16	Light showers				
Breeding season 2021	8	07/07/2021	1700	1840	DB	3	NW	8	16	Light showers				
Breeding season 2021	9	08/07/2021	0915	1215	JB	1	W	8	16-18	None				
Breeding season 2022	1	07/04/2022	1330	1630	DR	4-5	N	4-6	5	None	Good	Dry/Damp	None	None
Breeding season 2022	2	13/04/2022	1200	1500	DR			6-8	9-10		Good	Dry/Damp	None	None
Breeding season 2022	3	04/05/2022	1515	1815	DR	4-5	NE	5-6	11	None				
Breeding season 2022	4	30/05/2022	1400	1700	DR	3	W	6-8	11	Light showers				
Breeding season 2022	5	22/06/2022	1600	1900	DR			7-8	17		Good	Dry	None	None
Breeding season 2022	6	26/06/2022	1500	1800	DR	3-4	SW	6-8	12-13	Light showers		Damp/Wet	None	None
Breeding season 2022	7	13/07/2022	1415	1715	DR	3-4	W	5-6	14	None	Good	Dry/Damp	None	None
Breeding season 2022	8	26/07/2022	1145	1445	DR	2		7-8	13-14	Showers	Good	Damp/Wet	None	None
Breeding season 2022	9	24/08/2022	1515	1615	DR	3-4	S	4-6	16		Good	Damp/Wet	None	None
Breeding season 2023	1	04/04/2023	1315	1615	DR	3	S	8	7	None	Good	-	None	None
Breeding season 2023	2	09/04/2023	1200	1500	DR	3-4	S	8	11	None	Good	Damp/Wet	None	None
Breeding season 2023	3	18/04/2023	1315	1615	DR	3	SE	3-4	15	None	Good	Dry/Damp	None	None
Breeding season 2023	4	19/04/2023	930	1230	DR	3	E	6-7	11	None	Good	Dry/Damp	None	None

Season	Visit	Date	Start time	End time	Surveyor	Wind Force	Wind Dir	Cloud (oktas)	Temp. (C)	Rain	Visibility	Ground conditions	Disturbance	Disturbance Factors
Breeding season 2023	5	23/04/2023	1145	1445	DR	3	N	5	11	None	Good	Dry/Damp	None	None
Breeding season 2023	6	05/05/2023	1015	1315	DR	2-4	SSW	7-8	9	Occasional	Good-Moderate	Damp/Wet	None	Mist initially
Breeding season 2023	7	11/05/2023	1400	1700	DR	3-4	NW	5-8	11	Intermittent	Good	Damp/Wet	None	None
Breeding season 2023	8	22/05/2023	1230	1530	DR	3-4	N	4	12	None	-	Dry	None	None
Breeding season 2023	9	30/05/2023	1600	1900	DR	2-3	NE	0	17	None	Good	Dry	None	None
Breeding season 2023	10	20/06/2023	1240	1540	DR	3-6	S	3-6	18	Showers	Good-Moderate	Dry/Damp	None	None
Breeding season 2023	11	21/06/2023	1515	1815	DR	3	SW	3-7	19	None	Good	Damp/Wet	None	None
Breeding season 2023	12	28/06/2023	1130	1430	DR	N/A	N/A	6-8	18	Some	Good	Wet	None	None
Breeding season 2023	13	29/06/2023	1445	1745	DR	N/A	NW	6-8	18	Some	Good	Damp/Wet	None	None
Breeding season 2023	14	04/07/2023	1310	1610	DR	4	W	6-8	14	Shower	Good	Damp/Wet	None	None
Breeding season 2023	15	06/07/2023	1225	1525	DR	2-4	S	8	12	Mostly light rain 1226. Low cloud.	Moderate-Poor	Wet	None	None
Breeding season 2023	16	11/07/2023	1205	1505	DR	2-3	NW	4-7	15	Occasional	Good	Damp	None	None
Breeding season 2023	17	12/07/2023	1200	1500	DR	2-4	NW	5-7	15	Light/occasional	Good	Damp	None	None

Table 6: Hen harrier Breeding Season Survey Effort



GALETECH
ENERGY SERVICES

