



Bracklyn Wind Farm

Annex 5.2:  
Ornithological Study Areas &  
Survey Effort

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Vantage Point	Irish grid reference	Lat.	Long.	X (ITM)	Y (ITM)	Details
<b>VP 1</b>	N 61384 56748	53.557263	-7.074359	661330	756770	On area of re-vegetated raised bog orientated to N covering T3, T4, T5, T11
<b>VP 2</b>	N 63284 58251	53.570543	-7.045391	663229	758273	On edge of remnant of raised bog orientated to NE covering T7, T10, T11
<b>VP 3</b>	N 60537 57999	53.568606	-7.086900	660482	758021	On farm track, orientated to SSW covering T3, T4, T5, T7, T10, T11
<b>VP 4</b>	N 60465 58605	53.574060	-7.087866	660411	758628	High point in cereal field, orientated to ENE covering T1, T2, T3, T6, T7

**Table A5.2.1: Vantage point locations at Bracklyn, Co. Westmeath**



Figure A5.2.1: Viewshed at 20m above ground level – Vantage Point 1





Figure A5.2.2: Viewshed at 20m above ground level – Vantage Point 2



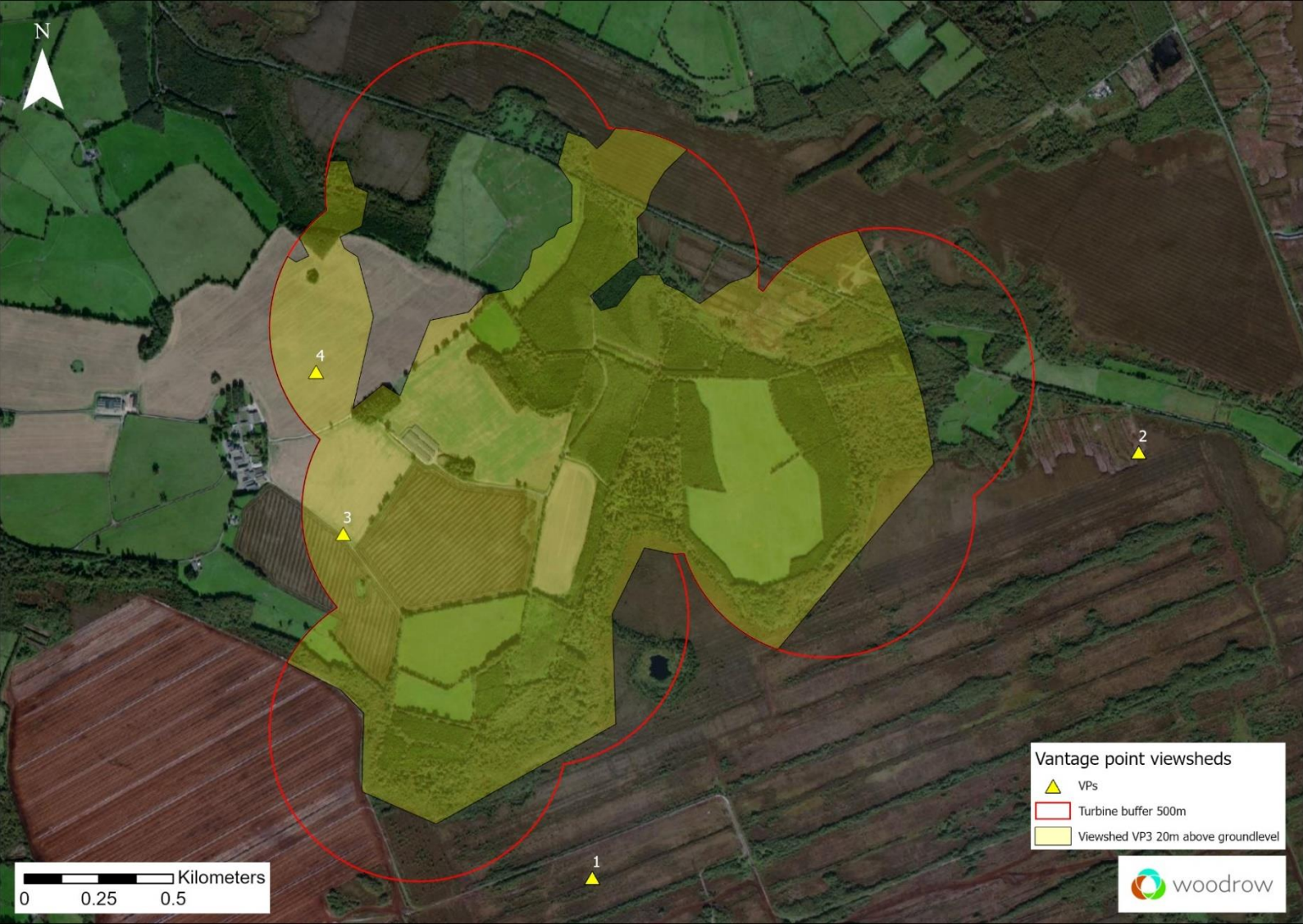


Figure A5.2.3: Viewshed at 20m above ground level – Vantage Point 3



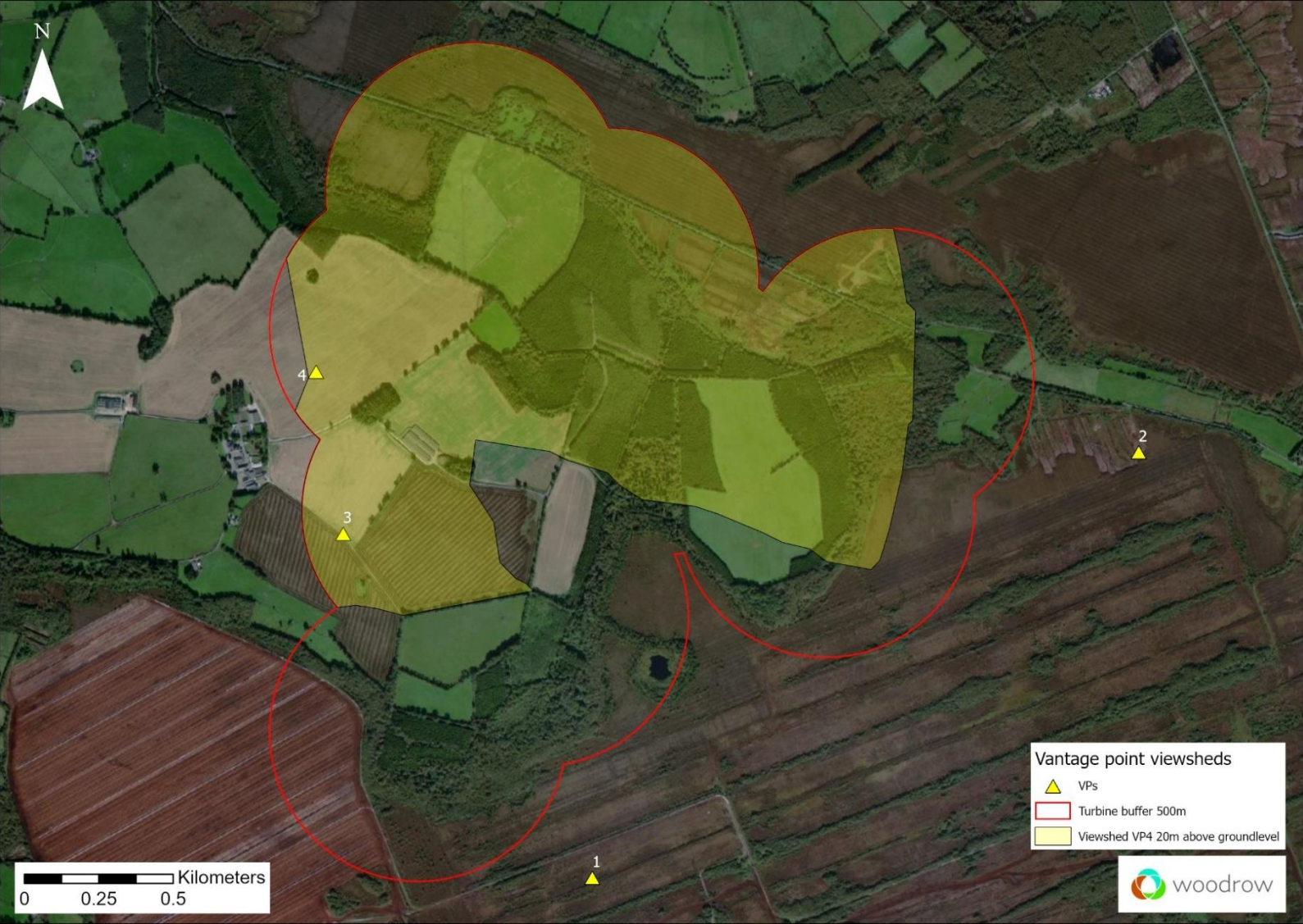


Figure A5.2.4: Viewshed at 20m above ground level – Vantage Point 4

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
1	25/10/2018	3.00	1045	K	KW	3	W	good	8	10	dry	none	none	none
1	13/11/2018	3.00	1215	No target sp.	KW	2	SSE	good	5	8	damp	none	none	none
1	26/11/2018	3.00	1330	K	KW	1	E	good	2-4	7	wet	none	none	none
1	01/12/2018	3.00	1000	SN, T	MT	1	W	poor	8	10	wet	none	none	fog
1	05/12/2018	3.00	1000	(ML, K before start) SN heard from VP	KW	1	SW	poor	8	10-13	wet	none	none	low cloud, mist, fog
1	13/12/2018	3.00	930	K	KOC	2-3	SE	good	8	5	none	light rain	peat harvesting and train noise	none
1	08/01/2019	3.00	930	K, PE	KOC	1	NW	good	2-6	8	none	none	some machinery noise, also a toy plane noise	none
1	25/01/2019	3.00	1130	No target sp.	HPD	3	W	good-mod	8	10	dry	a few light showers	none	light showers/misty rains occasionally
1	08/02/2019	3.00	1030	No target sp.	HPD	5-6	W	mod	8	8	damp	heavy showers	none	rain heavy at times, mod



VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
														visibility
1	19/02/2019	3.00	1115	BZ, SN	KW	1	S	good	8	10-11	wet	showers	none	showers
1	19/02/2019	3.00	1415	K	KW	1	S	good	8	10-11	none	none	none	none
1	15/03/2019	3.00	1045	No target sp.	KW	4-6	W	good	5-7	8	wet	showers	none	none
2	25/10/2018	3.00	1430	BZ, SN	KW	3-4	W	good	7	10	dry	none	none	slight glare in SW
2	13/11/2018	3.00	830	SH	KW	2	SSE	good	6	8	damp	none	none	none
2	27/11/2018	3.00	1000	BZ	KW	1-3	SE-S-SW	mod	6-8	8	wet bog	showers	road works on road parallel to VP and plantation	rain and low cloud
2	01/12/2018	3.00	1345	SN, T	KW	1	W	mod	8	10	wet bog	none	none	low cloud
2	05/12/2018	2.50	1400	BZ	KW	1	SW	poor	8	12-14	wet	none	none	fog, low cloud
2	13/12/2018	3.50	1240	CA, K	KOC	2-3	SE	good	8	6	wet	none	none	none
2	08/01/2019	3.00	1310	K, GP	KOC	2	NW	good	6-7	8	none	none	farm machinery noise	none
2	25/01/2019	3.00	1134	K	MT	3	W	good	8	9	wet/damp	passing bands of light misty	shooting, model craft flying 1235-1252	none

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
												drizzle		
2	28/01/2019	3.00	1030	BZ, GI, K	MT	2	W	good	1-3	8	wet bog	none	none	none
2	08/02/2019	3.00	1030	SH	KW	4-5	SW	good	4-8	7-8	wet bog	showers	none	none
2	21/02/2019	3.00	1030	BZ, GP, K	KOC	4	S	good	7-8	12	none	none	none	none
2	07/03/2019	3.00	1410	K, MA	KOC	4-3	NW	good	1-4	7	none	none	none	none
3	14/11/2018	2.25	1415	K	KW	4	SSW	good-mod	8	12	damp	none	none	low cloud
3	26/11/2018	3.00	945	BZ, SH	KW	1	E	good	1	3-7	wet	none	none	brief glare east 1115-1130
3	07/12/2018	3.00	1200	BZ, ET, K, MA, SH	KOC	4-6	SW	good	2	7	none	none	none	none
3	17/12/2018	3.00	1000	BZ, GI	KOC	3-4	S	good	8	5-9	wet	showers	none	none
3	21/12/2018	3.00	908	BZ	MT	1-2	SW	mod	8	5-6	damp	prolonged spells of misty drizzle	none	low cloud, misty drizzle, light mist
3	03/01/2019	3.00	1250	CA, K, M	KOC	1-3	S-SE	good	8	7	none	none	none	<b>none</b>
3	17/01/2019	3.00	1330	BZ, SH	KW	1	WSW	good	8	5-6	wet	none	none	none
3	23/01/2019	3.00	1335	BZ, ML	CL	2	NW	good	8		dry	some drizzle	none	none
3	28/01/2019	3.00	1400	BZ, K	KW	2-3	NW	good	3-8	6-7	wet	showers	none	none

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
3	04/02/2019	3.00	1350	BZ, K, SH	KOC	3-1	W	good	1-4	8	none	none	none	none
3	21/02/2019	2.00	1355	BZ, K, MA	KOC	4	S	good	3-6	12	none	none	none	none
3	26/02/2019	3.00	1130	BZ, K, SH	KW	1-2	SW	good	1	13	wet	none	none	glare to SW
3	08/03/2019	3.00	1145	BZ	HPD	4-5	SW	mod-poor	7-8	10	damp	showers through out	none	misty/rain/showers - mod vis throughout
4	25/10/2018	3.00	1030	SH, WS	HD	2-3	W	good	8	12	dry	none	none	none
4	25/10/2018	3.00	1415	BZ, SN	HD	2	W	good	8	12	dry	none	group in beet field (c.30 people) from 1545-1615	none
4	14/11/2018	3.00	1045	BZ	KW	4	SSW	mod	8	12	damp	none	none	none
4	27/11/2018	3.00	1330	BZ, SH	KW	3-2	SW	good	3-4	10	none	yes	none	low cloud, rain
4	07/12/2018	3.00	830	BZ, GP, SH, WS	KOC	4-5	SW	good	4	6	none	short showers	none	none
4	17/12/2018	3.00	1315	BZ	KW	4-5	S	good	8	9-10	wet	none	none	none
4	21/12/2018	3.00	900	BZ, GP, SH	HPD	2	SW	good-poor	8	6	damp	misty drizzle	none	mist and light drizzle
4	03/01/2019	3.00	920	BZ, K, SH	KOC	2-3	SE-S	good	7-8	5-7	none	none	none	none



VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
	9													
4	23/01/2019	3.00	1022	BZ	CL	2	NW	good	8	3	none	drizzle	none	none
4	04/02/2019	3.00	1020	BZ, GP, K, SH, SN	KOC	3	W	good	4-7	7	none	none	none	none
4	21/02/2019	1.00	1550	BZ, GP, L, PE	KOC	4	S	good	5-8	11	none	none	none	none
4	26/02/2019	3.00	1440	BZ	KW	1-3	SW	good	1	15	dry	none	model aeroplane	none
4	07/03/2019	3.00	1040	BZ	KOC	4-5	NW	good	3-7	6	none	showers	none	none

**Table A5.2.2: Vantage point survey effort – Non-breeding season 2018-19**

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
1	19/03/2019	3.00	1230	BZ, K	HPD	3-4	W	good	7-8	14	dry	light showers, mostly dry	model aeroplane 1400-1430	none
1	25/03/2019	2.00	1000	BZ, MA, SN	KW	1	N	good	5-7	10-12	wet bog	none	none	none
1	22/04/2019	4.00	1445	BZ	KW	1-4	SE	good	2-7	19-21	dry	none	none	none
1	23/04/2019	2.00	1445	K	CL	3-4	E	good	0-1	15	none	none	BNM trains 1530-1545	haze- but good vis
1	08/05/2019	3.00	900	MA	KW	4	NE	good	8	9-10	wet	light showers	walker	none
1	21/05/2019	4.00	1000	BZ	KW	1	W	good	3-6	18	none	none	none	none
1	04/06/2019	3.00	1630	BZ	KW	1-2	NE	good	8	11-12	wet	persistent showers	none	none

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
1	21/06/2019	3.00	1630	BZ	DM	2	SW	good	7-6	15	none	none	none	none
1	04/07/2019	3.00	730	BZ, SH	DM	2	S-SW	good	2-4	10-17	none	none	none	none
1	16/07/2019	3.00	725	No target sp.	DM	2	S-SW	good	6-8	15	none	light shower	none	none
1	14/08/2019	3.00	900	BZ, SH	DM	1-3	SW-W	good-mod	7-8	16-17	none	mostly dry, some drizzle	none	none
1	26/08/2019	3.00	1400	BZ, K	DM	2-3	SW	good	1-3	20	none	none	none	none
2	19/03/2019	3.00	1230	GP, JS, SN	KW	2-3	WSW	good-mod	5-8	10	wet	none	model aeroplane	none
2	25/03/2019	2.00	1230	SH, SN, MA	KW	1	N	good	7-8	11-14	wet	none	none	none
2	16/04/2019	2.00	1100	BZ, GP	KOC	3	SE	good	8	7	wet	some light drizzle	none	light mist
2	22/04/2019	2.00	1200	BZ	KW	4	SE	good	0-2	20-22	none	none	none	none
2	23/04/2019	3.00	700	BZ, K, MA	HD	2	E	good-mod	7-6	12-14	dry/damp	yes	digger to NE of VP on road since 725	none
2	08/05/2019	3.00	1230	BZ, MA	KW	4-5	NE	good	8	10-11	wet	light showers	digger working on bog	none
2	21/05/2019	3.00	1500	BZ	KW	1-3	W	good	5-7	17-18	none	none	model aeroplanes being flown east of site	none
2	10/06/2019	3.00	1615	No	KW	2-3	NE	good	3-5	13-14	none	none	none	<b>none</b>

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
				target sp.										
2	27/06/2019	3.00	1645	H, K	DM	6-5	E	good	0	20-18	none	none	none	none
2	10/07/2019	3.00	730	SH	DM	3-4	SW	good-mod	6-8	16-17	none	drizzle	none	none
2	25/07/2019	3.00	800	BZ, K, SH	DM	7-8	SE	good	7-8	18-21	none	none	none	none
2	16/08/2019	3.00	1230	BZ, K, SH	DM	4	SW	good	4-7	21-19	none	none	none	none
2	27/08/2019	3.00	1230	No target sp.	DM	8	S	good	8	19	none	mostly dry, 1 shower	none	none
3	19/03/2019	3.00	1600	L, SH, WS	KW	3-4	WSW-SW	good	2-8	7-10	wet	none	none	none
3	25/03/2019	2.00	1440	L	KW	1	NW	good	8	12-13	dry	none	none	none
3	16/04/2019	2.00	1545	BZ, K	KOC	7	SE	good	6-8	10	none	none	machinery noise	some haze
3	23/04/2019	3.00	1045	BZ, GP, L, LI	HD	2	E-ENE	good	5-8	11-13	dry	light rain	none	none
3	16/05/2019	5.00	1400	BZ	KW	2-3	SE	good	8	15-18	dry	none	none	none
3	24/05/2019	3.00	1430	BZ, K, Gulls	KOC	2-3	NW	good	7-8	16	none	none	none	none
3	04/06/2019	3.00	1245	BZ	KW	1	ENE	good-mod	8	11-12	wet	showers, persistent	none	none
3	27/06/2019	3.00	1315	BZ, K	DM	6	E	good	1-2	19-20	none	none	none	none
3	10/07/2019	3.00	1145	BH, LB, SH	DM	3-2	SW	good	7-8	18-21	none	none	none	none
3	25/07/2019	3.00	1135	No target sp.	DM	8-7	SE-S	good-mod	7-8	21-20	none	mostly dry, light shower	none	none



VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
3	16/08/2019	3.00	900	BZ, K, SH	DM	4	sw	good	5-8	15-20	none	mostly dry - passing showers	none	none
3	29/08/2019	3.00	1230	BZ, K	DM	6-7	SW	good	6-7	14	none	mostly dry, 1 shower	none	none
4	19/03/2019	3.00	1600	H, WS	HPD	4	W	good	3-7	12	dry	none	none	none
4	25/03/2019	2.00	1645	SN	KW	1	NW	good	8	10-11	dry	none	tractor spreading fertiliser	none
4	16/04/2019	2.00	1325	BZ	KOC	2-3	SE	good	8	8	wet	none	none	none
4	23/04/2019	3.00	1015	BZ, GP, L	CL	3	NE	good-mod	8	10	dry	slight drizzle	none	haze, slightly misty drizzle
4	16/05/2019	3.00	1400	BZ, K	HPD	3	E	good	8	14	dry	none	none	none
4	16/05/2019	2.00	1700	BZ, K	HPD	3	E	good	8	14	dry	none	none	none
4	24/05/2019	3.00	1100	BZ, K	KOC	1-3	NW	good	8	17	none	none	none	none
4	10/06/2019	3.00	1300	BZ	KW	1-3	NE	good	4-6	13-14	none	showers	none	none
4	27/06/2019	3.00	945	BZ	DM	6	E	good	1-2	17-19	none	none	none	none
4	04/07/2019	3.00	1115	BZ	DM	3	W	good	5-7	19-20	none	none	none	none
4	16/07/2019	3.00	1115	BZ, SH	DM	2-3	SW	good	5-7	18-21	none	none	none	none
4	14/08/2019	3.00	1245	BZ, SH	DM	2-3	W	good	5-7	19-20	none	none	none	none
4	27/08/2019	3.00	850	BZ, SH	DM	5-8	S	good	5-8	14-19	none	none	none	none

**Table A5.2.3: Vantage point survey effort – Breeding season 2019**

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
1	01/10/2019	3.00	915	BZ, GP, K, MA, SN	DM	3-4	N	good	8	11	none	none	none	none
1	14/10/2019	3.00	1600	SN	DM	3-2	SE	good	7-8	13-12	none	light showers most of day	none	none
1	29/10/2019	3.00	830	GP, K	DM	3	E	good	1-2	7-10	none	none	none	none
1	14/11/2019	3.00	845	SH, SN	DM	4	N	good	1-2	3-6	none	none	none	none
1	27/11/2019	3.00	845	SN	DM	2	NE-N	good	6-8	8-9	none	light rain for 30 mins	BNM machine passed through	none
1	11/12/2019	3.00	815	BZ, MS, SN	DM	3	SW	good	1-3	3-4	none	none	none	none
1	20/12/2019	3.00	815	SN	DM	2	SW	mod	8	3-4	none	none	none	fog
1	09/01/2020	3.00	845	SN, T	DM	1	N-NW	good	7-8	2-3	none	none	none	none
1	24/01/2020	3.00	915	T	DM	2-3	sw	good	7-8	6-7	none	none	none	none
1	13/02/2020	3.00	845	GP, MA, SH, SN, T	DM	3-4	NW	good	5-7	4-7	none	none	none	none
1	25/02/2020	3.00	900	BZ, K	DM	3-4	w	good	3-7	3-4	none	none	none	none
1	09/03/2020	3.00	845	MA, T	DM	3-4	SW-S	good-mod	8	5-6	none	some rain	none	rain
2	02/10/2019	3.00	845	SN	DM	2	NW-N	good	4-6	7-10	none	none	none	none
2	16/10/2019	3.00	800	ML	DM	2-3	SW	good	0	7-9	none	none	none	none
2	30/10/2019	3.00	845	BZ, GP, PE, SH	DM	4	E	good	3-5	8-10	none	none	none	none
2	15/11/2019	3.00	1230	BZ, CA,	DM	4-3	N	good	0-3	6-7	none	none	none	none

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
				K, WG										
2	28/11/2019	3.00	830	BZ, SN	DM	2-1	NW	good	4-7	5-7	none	none	none	none
2	13/12/2019	3.00	845	K, SN	DM	4-5	W	good	4-6	6-7	none	none	none	none
2	23/12/2019	3.00	815	BZ, SH, SN, WS	DM	3-4	W-SW	good	1-4	6-7	none	none	none	none
2	10/01/2020	3.00	900	LB, SN	DM	2-3	s	good	3-4	1-5	none	none	none	none
2	27/01/2020	3.00	945	No target sp.	DM	2-3	s	good	2-4	2-5	none	none	none	none
2	14/02/2020	3.00	1330	BZ, GP	DM	3-4	sw	good	4-7	11-9	none	none	none	none
2	26/02/2020	3.00	900	MA, SN	DM	3-4	w	good	4-7	2-5	none	1 shower	none	none
2	10/03/2020	3.00	945	BZ, MA, SN	DM	5	W	good	6-8	11	none	1 shower	none	None
3	02/10/2019	3.00	1215	K, WG	DM	2	W	good	6-7	11-12	none	none	none	none
3	16/10/2019	3.00	1130	BZ, K, MA, SH	DM	3	SW	good	0-3	11-13	none	none	none	none
3	30/10/2019	3.00	1215	BZ, GP	DM	4	E	good	5-7	10	none	none	none	none
3	15/11/2019	3.00	845	BZ, GP, K	DM	3	N	good	0-2	3-6	none	none	none	none
3	28/11/2019	3.00	1200	BZ	DM	1-2	N-NE	good	7-8	7-8	none	light showers	none	none
3	13/12/2019	3.00	1215	BH	DM	4	W	good	2-5	7-6	none	light shower	none	none
3	23/12/2019	3.00	1145	BZ, GP	DM	3	SW	good	2-3	7-8	none	none	none	none
3	10/01/2020	3.00	1230	BZ, GP	DM	3-4	s	good	4-7	5-7	none	none	none	none
3	27/01/2020	3.00	1315	GP	DM	3-4	s	good	5-8	5-4	none	2	none	none



VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
												showers		
3	14/02/2020	3.00	1000	BZ	DM	4-5	sw	good-mod	4-8	9-10	none	1 shower	none	rain shower
3	26/02/2020	3.00	1230	BZ, GP, K	DM	4	w	good	4-5	6-5	none	none	none	none
3	10/03/2020	3.00	1315	BZ, MA	DM	5-4	W	good	6-7	11-9	none	1 shower	none	None
4	29/10/2019	3.00	1200	BZ, GP, K	DM	4	E	good	2-3	9-10	none	none	none	none
4	01/10/2019	3.00	1245	BZ, GP	DM	4	W	good	8-6	10	none	none	none	none
4	14/10/2019	3.00	1230	BZ, SH	DM	3	SE	good	8-6	13	none	none	none	none
4	14/11/2019	3.00	1215	GP	DM	4	N	good	1-2	6	none	none	none	none
4	27/11/2019	3.00	1215	BZ, SH	DM	2	N-NE	good	7-6	9	none	none	none	none
4	11/12/2019	3.00	1145	BZ	DM	4	W	good	1-2	5	none	none	none	none
4	20/12/2019	3.00	1145	SN	DM	2	SW	mod	8	4	none	none	none	fog
4	09/01/2020	3.00	1215	GP, SN	DM	1-2	NE-N	good	6-7	3-5	none	none	none	none
4	24/01/2020	3.00	1245	BZ, K	DM	2-3	sw	good	8	7-8	none	none	none	none
4	13/02/2020	3.00	1215	BZ, K	DM	3	NW	good	6-8	7-9	none	none	none	none
4	25/02/2020	3.00	1230	BZ, SH	DM	3-4	w	good	5-7	4	none	light showers	none	none
4	09/03/2020	3.00	1215	No target sp.	DM	4-3	S-SW	good-mod	8	6-7	none	Rain	none	rain

**Table A5.2.4: Vantage point survey effort - Non-breeding season 2019-20**

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
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VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
1	20/03/2020	3.00	1530	BO, BZ, K	JK	3	NE	good	5-6	8	Wet	None	None	None
1	21/04/2020	3.00	945	BZ	DM	4	E	good	1-2	11-13	none	none	none	none
1	27/04/2020	3.00	830	BZ, H, MA, SH,	DM	2	N	good	2-3	8-12	none	none	none	none
1	05/05/2020	3.00	815	BZ, K, MA	DM	4	E	good	4-7	8-11	none	none	none	none
1	21/05/2020	3.00	800	BZ, K	DM	2-3	W-NW	good	3	11-15	none	none	none	none
1	09/06/2020	3.00	1700	BZ, K	DM	1	W	good	7-8	13	none	none	none	none
1	22/06/2020	3.00	1145	K, SN	DM	4-5	S	good	8	18-20	none	none	none	none
1	17/07/2020	3.00	1230	No target sp.	DM	4	sw	good	8	18	none	light showers	none	none
1	28/07/2020	3.00	1200	BZ	DM	4-3	W	good	6-7	15-16	none	none	none	none
1	10/08/2020	3.00	1530	No target sp.	DM	2	NE	good	7-8	18-17	none	none	none	none
1	17/08/2020	3.00	800	K, PE	DM	3	NE	good-mod	8	15-17	none	light rain at start	none	drizzle
1	24/08/2020	3.00	1500	H, K	DM	2	SE	good	7-8	17	none	dry with 1 shower	none	none
2	20/03/2020	3.00	1000	BZ	JK	6	E	good-mod	5-6	8	Wet	none	None	None
2	22/04/2020	3.00	830	BZ, MA, SH	DM	3-5	NE	good	4-7	9-12	none	none	none	none
2	28/04/2020	3.00	830	BZ, MA, SN	DM	1-2	NE	good	2-5	9-12	none	none	none	none
2	06/05/2020	3.00	800	BZ, K	DM	2-3	SE	good	1	9-14	none	none	none	none
2	29/05/2020	3.00	1000	BZ, SH	KOC	4-5	SE-S	good-mod	4-5	22	dry	none	fire brigade putting off some few small flames of fire on the bog near road	heat haze

VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
2	10/06/2020	3.00	1700	BZ, H, SH	DM	2	NW	good	7-8	12-10	none	light showers	none	none
2	24/06/2020	3.00	1630	No target sp.	DM	1-2	NW	good	8	19-18	none	none	none	none
2	20/07/2020	3.00	830	BZ, K	DM	2	NW	good	1-4	12-14	none	none	none	none
2	29/07/2020	3.00	800	BZ, GE, K	DM	1-2	sw	good	7-8	12-15	none	none	none	none
2	07/08/2020	3.00	1600	GE, K	DM	3	w	good	5-7	21-19	none	none	Large model airplane 1 <sup>st</sup> quarter hour	none
2	14/08/2020	3.00	830	No target sp.	DM	3	NE	good	7-8	17-19	none	none	none	none
2	21/08/2020	3.00	1245	BZ, LB	DM	5-6	SW	good	5-7	18-17	none	light showers	none	none
3	27/03/2020	3.00	1000	BZ	JK	3	NE	good	5-6	10	Dry	None	None	None
3	22/04/2020	3.00	1200	BZ, SH	DM	3	NE	good	3-4	14	none	none	none	none
3	28/04/2020	3.00	1200	BZ	DM	2	NE	good	3-7	13-14	none	none	none	none
3	06/05/2020	3.00	1130	BZ, K	DM	3-5	SE	good	1	14-16	none	none	none	none
3	27/05/2020	3.00	1300	BZ	DM	1	SW-W	good	2-3	20-21	none	none	none	none
3	10/06/2020	3.00	1330	BZ, K, LB	DM	3	NW	good	7-8	12	none	1 light shower	none	none
3	24/06/2020	3.00	1300	BZ, K	DM	1	SW-NW-N	good	7-8	19	none	none	none	none
3	20/07/2020	3.00	1200	BZ	DM	2	NW	good	1-4	12-14	none	none	none	none
3	29/07/2020	3.00	1130	BZ	DM	2	SW-S	good	8	16	none	none	none	none
3	07/08/2020	3.00	1230	BZ	DM	3	SW	good	5-7	21	none	1 shower	none	none
3	14/08/2020	3.00	1200	BZ, H	DM	3	NE	good	8	20-22	none	none	none	none
3	21/08/2020	3.00	915	H, K	DM	5-6	SW	good	7-8	15-17	none	light showers	none	none
4	27/03/2020	3.00	1330	BZ, SH	JK	3	NE	good	5-6	13	Dry	None	None	None



VP Location	Date	Duration (hr)	Start Time	Target Sp	Surveyor	Wind Force	Wind Dir.	Vis.	Cloud (oktas)	Temp. (C)	Ground Cond.	Rain	Disturbance factors	Factors affect vis
4	21/04/2020	3.00	1315	BZ	DM	4	E	good	0-1	13-14	none	none	none	none
4	27/04/2020	3.00	1200	BZ, K, SH	DM	1	NE	good	3-5	12	none	none	none	none
4	05/05/2020	3.00	1145	BZ, LB	DM	4	E	good	2-3	12-14	none	none	none	none
4	21/05/2020	3.00	1145	BZ, K	DM	1-2	SW-S-SE	good	4-6	16-18	none	none	none	none
4	09/06/2020	3.00	1330	BZ, K	DM	2	SW	good	8	14-13	none	1 light shower	none	none
4	22/06/2020	3.00	815	BZ, LB	DM	4-5	S	good	7-8	13-17	none	light showers	none	none
4	17/07/2020	3.00	900	BZ, LB	DM	3-4	sw	good	8	16-18	none	light showers	none	none
4	28/07/2020	3.00	830	BZ, K	DM	3-4	NW	good	4-6	12-14	none	light showers	none	none
4	10/08/2020	3.00	1200	BZ, H, K	DM	2	NE	good	8	19-17	none	light showers	none	none
4	17/08/2020	3.00	1130	BZ, K	DM	2-3	NE	good-mod	8	17-16	none	rain for hour	none	rain
4	24/08/2020	3.00	1130	BZ, SH	DM	2	E-SE	good	6-7	16-17	none	none	none	none

**Table A5.2.5: Vantage point survey effort – Breeding season 2020**

