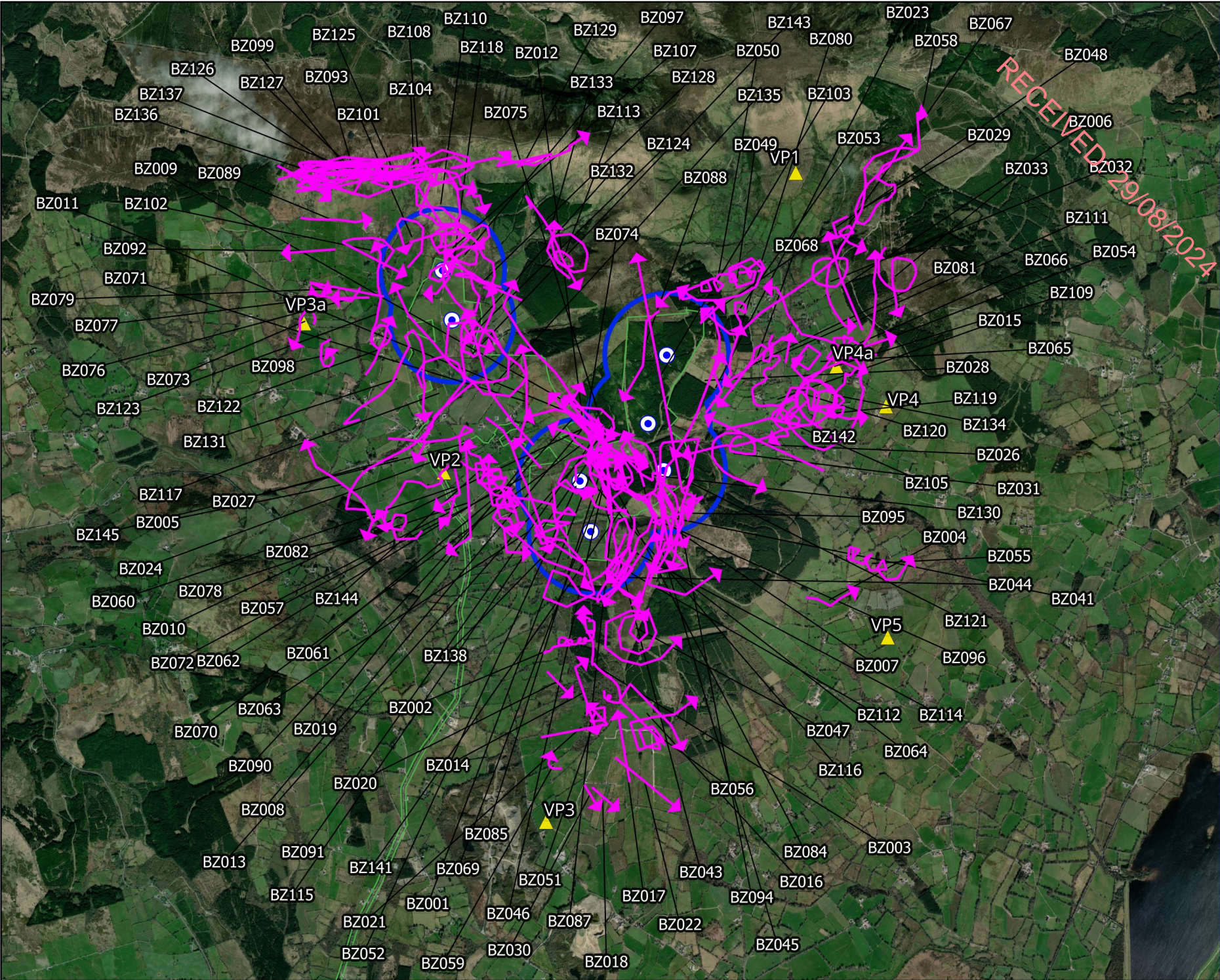


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APPENDIX 7-4e

SURVEY DATA



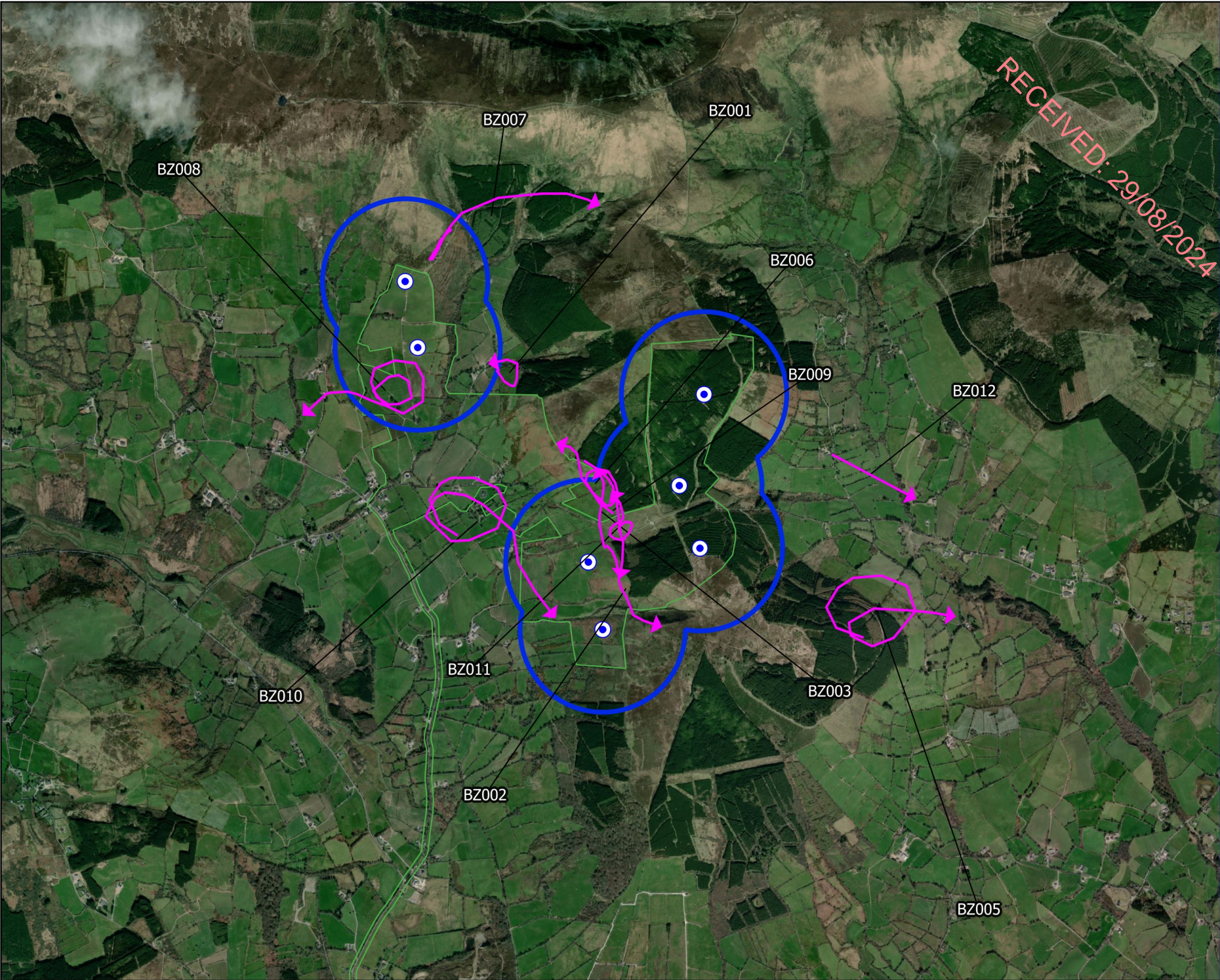
Map Legend

- EIAR Site Boundary
- 500m Radius of Turbines
- VP Locations
- Turbine Locations
- Flightline
- Observation

Drawing Title	
Buzzard Observations Vantage Point Surveys	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-26
Scale	Date
1:40,000	14/05/2024

MKO
Planning and
Environmental
Consultants

Tuam Road, Galway
Ireland, H91 VV84
+353 (0) 91 735611
email: info@mkofireland.ie
Website: ww.mkofireland.ie

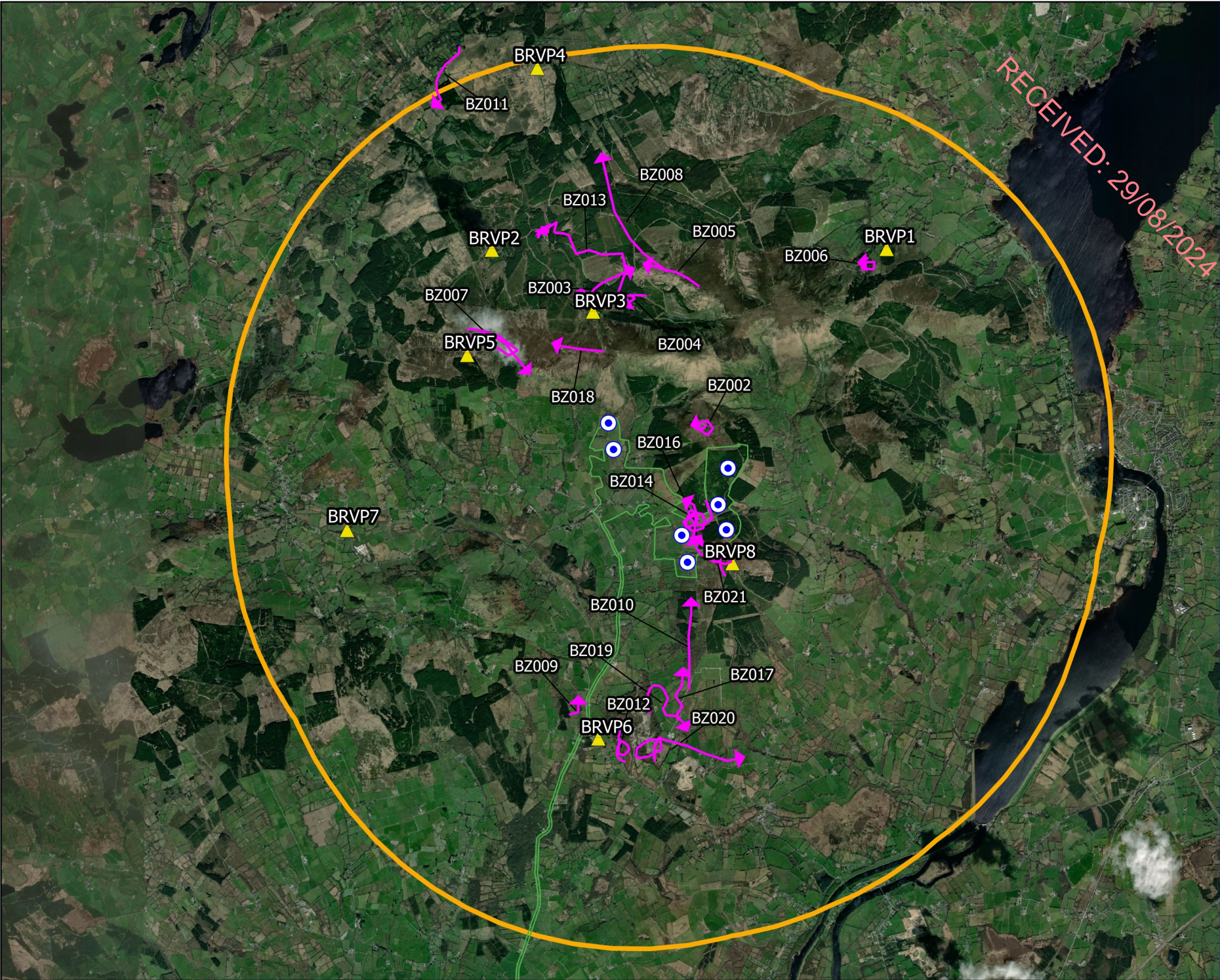


Map Legend

- EIA Site Boundary
- 500m Radius of Turbines
- Turbine Locations
- Flightline



Drawing Title	
Buzzard Observations Breeding Walkover Surveys	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-27
Scale	Date
1:30,000	14/05/2024
MKO Planning and Environmental Consultants Tuam Road, Galway Ireland, H91 VW84 +353 (0) 91 735611 email: info@mkofireland.ie Website: ww.mkofireland.ie	



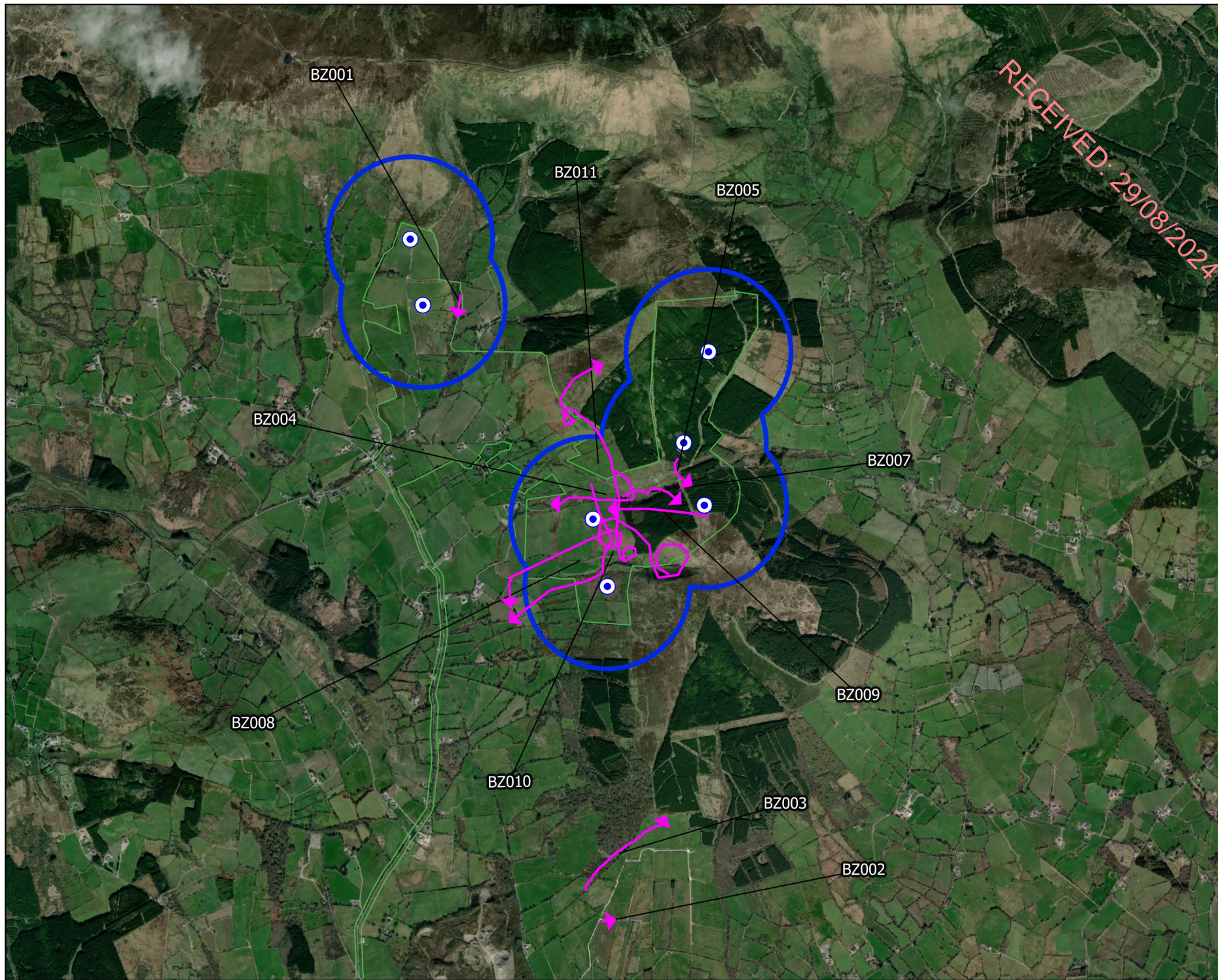
Map Legend

- EIAR Site Boundary
- 5km Survey Radius
- Breeding Raptor VP Locations
- Turbine Locations
- Flightline

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Drawing Title	
Buzzard Observations Breeding Raptor Surveys	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-28
Scale	Date
1:75,000	14/05/2024

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Planning and
Environmental
Consultants
Tuam Road, Galway
Ireland, H91 VV84
+353 (0) 91 735611
email: info@mkofireland.ie
Website: ww.mkofireland.ie



Map Legend

- EIAR Site Boundary
- 500m Radius of Turbines
- Turbine Locations
- Flightline



Drawing Title	
Buzzard Observations Winter Walkover Surveys	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-29
Scale	Date
1:30,000	14/05/2024
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Map Legend

- EIAR Site Boundary
- 5km Survey Radius
- Turbine Locations
- Flightline



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Drawing Title	
Buzzard Incidental Observations	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-30
Scale	Date
1:75,000	14/05/2024

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Planning and
Environmental
Consultants
Tuam Road, Galway
Ireland, H91 VV84
+353 (0) 91 735611
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9.

LONG-EARED OWL

Table 7-4-31 Long-eared Owl Incidental Observation Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
LE001	Breeding Woodcock Survey; Lackereagh, T3	10/05/2022	21:29	Long-Eared Owl	1	highly modified/non-native woodland and peatlands; calling	JQ
LE002	Breeding Woodcock Survey; the gap, Magherareagh, near HHVP5	08/06/2022	22:46	Long-Eared Owl	1	conifer plantation and scrub; travelling, flying, seen flying at or below PCH, headed east	JG



Map Legend

- EIA Site Boundary
- 5km Survey Radius
- Turbine Locations
- Flightline



Drawing Title	
Long-eared Owl Incidental Observations	
Project Title	
Lackareagh Wind Farm, Co. Clare	
Drawn By	Checked By
SA	KS
Project No.	Drawing No.
220245	Fig. 7-4-31
Scale	Date
1:75,000	14/05/2024
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10.

SPARROWHAWK

Table 7-4- 32 Sparrowhawk Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	PCH (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH001	VP2	02/10/2020	17:22	Sparrowhawk	1	15	15	0	0	0	improved agricultural grassland and hedgerows; landing , female	JH
SH002	VP3	26/10/2020	13:44	Sparrowhawk	2	90	30	30	30	0	oak-ash-hazel woodland and conifer plantation; travelling	AR
SH003	VP3	26/10/2020	13:49	Sparrowhawk	1	10	10	0	0	0	oak-ash-hazel woodland and dry calcareous and neutral grassland; travelling	AR
SH004	VP3	26/10/2020	16:15	Sparrowhawk	1	80	0	0	80	0		AR
SH005	VP5	28/10/2020		Sparrowhawk	1	50	0	50	0	0	improved agricultural grassland; flying, adult female	JK
SH006	VP5	25/11/2020	09:01	Sparrowhawk	1	20	20	0	0	0	improved agricultural grassland; flight, perching	TR
SH007	VP2	14/12/2020	13:03	Sparrowhawk	1	70	50	20	0	0	scrub and improved agricultural grassland; flight, chased by Hooded Crow	TR
SH008	VP2	14/12/2020	15:07	Sparrowhawk	1	20	20	0	0	0	improved agricultural grassland; flight, landing	TR
SH009	VP3	17/12/2020	11:16	Sparrowhawk	1	300	200	100	0	0	improved agricultural grassland, conifer plantation and mixed broadleaved woodland; circling, flying, interacting, going towards wdl area, interacting with Kestrel	TR
SH010	VP3	17/12/2020	15:22	Sparrowhawk	1	30	0	30	0	0	conifer plantation; interacting, interacting with kestrel	TR
SH011	VP5	06/01/2021		Sparrowhawk	2	800	800	0	0	0	conifer plantation; dogfighting, with Kestrel	JK
SH012	VP5	06/01/2021		Sparrowhawk	1	90	30	50	0	0	improved agricultural grassland; hunting	JK
SH013	VP4	12/02/2021	12:47	Sparrowhawk	1	10	10	0	0	0	scrub; flying, out of view behind scrub, female	TR
SH015	VP2	20/10/2021	12:30	Sparrowhawk	1	15	15	0	0	0	improved agricultural grassland, hedgerows and treelines; mobbed, male Sparrowhawk, flying southwest being mobbed by two pied wagtails.	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	PCH (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH016	VP3a	19/11/2021	11:53	Sparrowhawk	1	40	2	8	30	0	improved agricultural grassland, wet grassland and hedgerows; fighting, mobbed, sparrowhawk fighting high in air with hooded crow. dived down out of sight behind hillside to evade crow.	SOB
SH017	VP3a	23/11/2021	15:13	Sparrowhawk	1	20	20	0	0	0	improved agricultural grassland and hedgerows; hunting, male, ambushed group of birds, did not see whether the hunt was successful or not.	JG
SH018	VP4a	10/12/2021	11:10	Sparrowhawk	1	70	10	50	50	0	wet grassland; travelling flight	TR
SH019	VP4a	10/12/2021	13:43	Sparrowhawk	1	25	25	0	0	0	improved agricultural grassland; travelling, female	TR
SH020	VP2	14/12/2021	11:58	Sparrowhawk	1	25	0	25	0	0	improved agricultural grassland; travelling, flying	TR
SH021	VP4a	11/01/2022	12:34	Sparrowhawk	1	70	10	60	0	0	improved agricultural grassland, scrub and conifer plantation; gliding, female	TR
SH022	VP4a	11/01/2022	12:57	Sparrowhawk	1	20	20	0	0	0	scrub and semi-natural grassland; gliding	TR
SH023	VP2	18/07/2022	16:33	Sparrowhawk	1	25	25	0	0	0	improved agricultural grassland and hedgerows; hunting, female	JG
SH024	VP3a	17/08/2022	14:35	Sparrowhawk	1	10	10	0	0	0	improved agricultural grassland and hedgerows; travelling flight, hunting, female	JG
SH025	VP4a	18/08/2022	13:16	Sparrowhawk	1	20	20	0	0	0	improved agricultural grassland; hunting, mobbed	JG
SH026	VP4a	02/11/2022	12:13	Sparrowhawk	1	25	25	0	0	0	improved agricultural grassland and hedgerows; circling, hunting, female	JG
SH027	VP2	26/01/2023	15:52	Sparrowhawk	1	15	15	0	0	0	improved agricultural grassland and hedgerows; travelling flight, female	JG
SH028	VP1	10/02/2023	13:00	Sparrowhawk	1	10	10	0	0	0	improved agricultural grassland and hedgerows; hunting, female	JG
SH029	VP1	10/02/2023	13:00	Sparrowhawk	1	5	5	0	0	0	hedgerows and improved agricultural grassland; hunting	JG
SH030	VP2	22/02/2023	10:31	Sparrowhawk	1	312	192	60	60	0	improved agricultural grassland, hedgerows and conifer plantation; circling, hunting	JG

Table 7-4- 33 Sparrowhawk Breeding Walkover Survey Data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
SH001	09/06/2022	14:12	Sparrowhawk	1	improved agricultural grassland and linear woodland/scrub; hunting (suitable nesting habitat; possible breeder)	JG

Table 7-4- 34 Sparrowhawk Breeding Raptor Survey Data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
SH001	BRVP4	14/05/2021	11:15	Sparrowhawk	1	recently-felled woodland and conifer plantation, hunting, flying at tree canopy height, then dove downwards to ground.		SOB
SH002	BRVP4	14/05/2021	11:22	Sparrowhawk	1	recently-felled woodland and conifer plantation, flying, took off from ground, noticed by hooded crows which called out and took off, then sparrowhawk flew into forest		SOB
SH003	BRVP4	22/07/2021	15:45	Sparrowhawk	1	bogs, flying, flying low over the bog, lost to sight behind scrub	suitable nesting habitat; possible breeder	CMC
SH004	BRVP1	20/04/2022	13:36	Sparrowhawk	1	conifer plantation and upland blanket bog, travelling flight, female	suitable nesting habitat; possible breeder	JG

Table 7-4- 35 Sparrowhawk Winter Walkover Survey Data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
SH001	01/10/2020	12:56	Sparrowhawk	1	conifer plantation and improved agricultural grassland; travelling, female (wintering)	JH
SH002	05/10/2022	16:31	Sparrowhawk	1	improved agricultural grassland and hedgerows; flushed, female, in tree (wintering)	JG
SH003	18/01/2023	13:06	Sparrowhawk	1	upland blanket bog and improved agricultural grassland; mobbing (wintering)	JG
SH004	28/03/2023	18:33	Sparrowhawk	1	conifer plantation and improved agricultural grassland; travelling flight, female (wintering)	JG