



APPENDIX 7-4

SURVEY DATA

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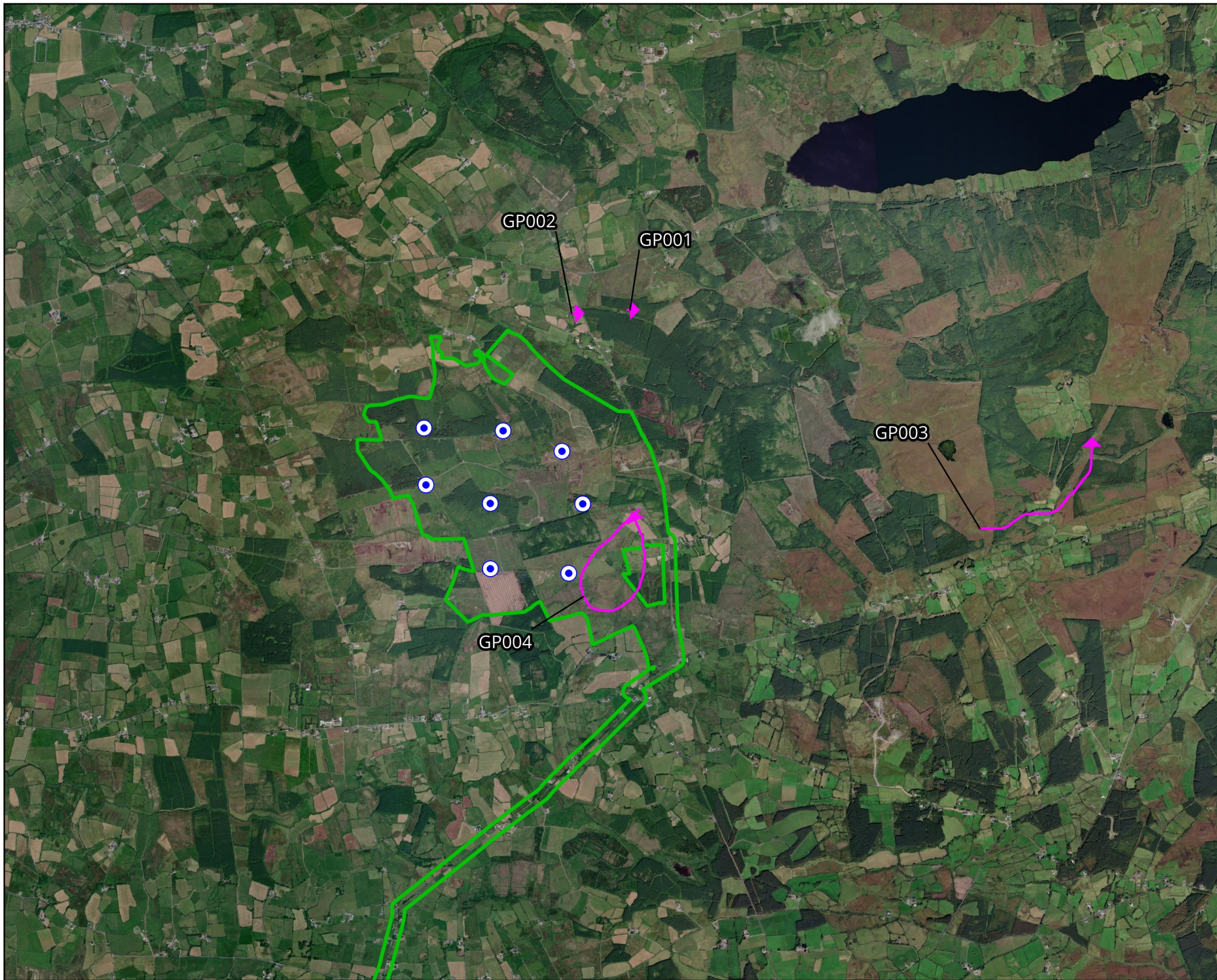
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1.




GOLDEN PLOVER

Table 7 - 4 - 1 Golden plover, incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP001	Hen Harrier Roost Survey; HHVP 5	27/10/2023	18:32	Golden Plover	1	lowland blanket bog, improved agricultural grassland and conifer plantation; calling, calling from bog, not seen	DM
GP002	Hen Harrier Roost Survey; HHVP 5	27/10/2023	18:36	Golden Plover	1	improved agricultural grassland, lowland blanket bog and conifer plantation; calling, calling from fields, not seen	DM
GP003	Breeding Raptor Survey; BR2	12/04/2024	10:16	Golden Plover	8	cutover bog, conifer plantation and improved agricultural grassland; flying, calling, golden plover up at ~150m flying/calling to the south, travelling east.	DM
GP004	Hen Harrier Roost Survey; HHVP 4	25/02/2025	16:04	Golden Plover	90	cutover bog, improved agricultural grassland and conifer plantation; flock circling and flying over east end of site between 10-150m altitude for 35 minutes.	DM



Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline

GP002

GP001

GP003

GP004



Drawing Title
Golden Plover
Incidental Observations

Project Title
Proposed Cahermurphy
West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-1
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Scale 1:40,000	Date 04.09.25
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2.

HEN HARRIER

Note: Sensitive records relating to breeding and roosting sites have been omitted from this appendix and are presented separately in Appendix 7-5.

Table 7 - 4 - 2 Hen harrier, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
HH001	VP3	20/04/2023	12:32	Hen Harrier	2	34	34	0	0	0	upland blanket bog; hunting together, one male and one female	SD
HH002	VP3	20/04/2023	16:18	Hen Harrier	1	12	12	0	0	0	upland blanket bog; hunting, female attempted sky dancing	SD
HH003	VP1	23/04/2023	10:55	Hen Harrier	1	70	0	0	70	0	conifer plantation; commuting, flew west, then south and out of view.	JH
HH004	VP1	25/08/2023	20:18	Hen Harrier	1	28	28	0	0	0	improved agricultural grassland and conifer plantation; hunting, ringtail (looked like a juvenile) hunting along waterway continued in direction of doo lough to east	DM
HH005	VP3	11/11/2023	14:36	Hen Harrier	1	25	25	0	0	0	cutover bog; flying north, ringtail	SD
HH006	VP1	17/12/2023	12:57	Hen Harrier	1	45	45	0	0	0	improved agricultural grassland; flying east, adult male	SD
HH007	VP4	17/01/2024	12:59	Hen Harrier	1	20	20	0	0	0	lowland blanket bog; hunting on edge of bog going north, adult male, came from the south, hunting north	SD
HH008	VP4	17/01/2024	16:50	Hen Harrier	1	30	30	0	0	0	lowland blanket bog and improved agricultural grassland; adult male, hunting south crossed road in to improved agricultural grassland, then turned north crossed the road again and continued hunting along the bog northwards.	SD
HH011	VP1	23/03/2024	16:19	Hen Harrier	1	78	78	0	0	0	improved agricultural grassland and conifer plantation; male hunting low flying into wind moving slowly.	DM
HH012	VP2	19/04/2024	08:58	Hen Harrier	1	110	75	15	20		cutover bog, improved agricultural grassland and conifer plantation; hunting, hen harrier male hunting over bog slowly, low to the ground and into the wind. left over mature conifers still visible over area of felled conifers. lost sight due to trees.	DM

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
HH013	VP2	19/04/2024	11:25	Hen Harrier	1	125	125				cutover bog, improved agricultural grassland and conifer plantation; hunting, hen harrier hunting slowly along bog/rough ground.	DM
HH014	VP2	19/04/2024	12:22	Hen Harrier	1	120	90		30		cutover bog, improved agricultural grassland and conifer plantation; hunting, hen harrier male hunting low over bog again then left over conifers to northeast.	DM
HH015	VP1	21/05/2024	21:17	Hen Harrier	1	4	4	0	0	0	improved agricultural grassland; flying, hen harrier male spotted while scanning, flying low and fast heading east. spotted through gap in hedges flying about 2m off the ground.	DM
HH016	VP1	25/11/2024	11:17	Hen Harrier	1	30	30	0	0	0	improved agricultural grassland; flying west southwest, male	SD
HH017	VP1	25/11/2024	12:23	Hen Harrier	1	55	55	0	0	0	improved agricultural grassland; being mobbed by hooded crow flying west, ringtail	SD
HH018	VP1	20/01/2025	13:57	Hen Harrier	1	80	20	60	0	0	improved agricultural grassland, cutover bog and conifer plantation; hunting. low flight over a variety of habitat types., male bird. slow flight. lost view close to vantage point 4 over woodland.	JH
HH019	VP1	20/01/2025	16:10	Hen Harrier	1	20	0	0	20	0	conifer plantation and upland blanket bog; commuting east, single male flying east over conifer plantation.	JH

Table 7-4-3 Hen harrier, breeding raptor survey data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
HH001	BR 3	20/04/2023	17:08	Hen Harrier	1	dry-humid acid grassland and lowland blanket bog, hunting, male hen harrier hunting over rushy field into blanket bog, seen heading west low to the ground. lost sight as it flew around forestry.	suitable nesting habitat; possible breeder	DM
HH002	BR 1	21/04/2023	11:31	Hen Harrier	1	upland blanket bog, hunting, male, hunting along road edge	pair; probable breeding	SD
HH003	BR 1	21/04/2023	12:19	Hen Harrier	2	upland blanket bog, hunting, hunting along road edge, climbed to 80m. female came from the east toward Cahermurphy 1 turbine. male was hunting then flew from east near Sitka plantation west	pair; probable breeding	SD
HH004	BR 1	23/04/2023	15:04	Hen Harrier	1	conifer plantation and lowland blanket bog, soaring, travelling, male hen harrier soaring over forestry and travelled southeast after reaching ~300m height	suitable nesting habitat; possible breeder	DM

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
HH005	BR2	29/04/2023	14:23	Hen Harrier	1	conifer plantation, upland blanket bog and improved agricultural grassland, flying over, male bird, flying for 6 min over farmland, forestry and scrub. slow flight gliding at times	suitable nesting habitat; possible breeder	JH
HH006	BR2	29/04/2023	14:46	Hen Harrier	1	conifer plantation, flying over, flying just over conifer plantation canopy. located east of rvp2	suitable nesting habitat; possible breeder	JH
HH007	BR 1	22/05/2023	07:56	Hen Harrier	1	conifer plantation, lowland blanket bog and scrub, soaring, soaring over woodland, 80 seconds, male.	suitable nesting habitat; possible breeder	JH
HH008	BR 1	22/05/2023	08:13	Hen Harrier	1	conifer plantation, lowland blanket bog and scrub, soaring, soaring in tight circles for 70 sec. same location as for 1 above. lost from view as it went westwards.	suitable nesting habitat; possible breeder	JH
HH009	BR 1	22/05/2023	08:52	Hen Harrier	1	conifer plantation and lowland blanket bog, flying, flew from woodland over bog and returned to wood. same location as above. short low flight over section of bog	suitable nesting habitat; possible breeder	JH
HH010	BR 1	22/05/2023	09:19	Hen Harrier	1	lowland blanket bog and conifer plantation, flying, flew from wood east over bog and entered another section of woodland close to VP. entered low into opening. slow, low 2/3m flight over bog and entered another section of forest	suitable nesting habitat; possible breeder	JH
HH011	BR 1	22/05/2023	09:21	Hen Harrier	2	conifer plantation and lowland blanket bog, flying, male & female emerged from wood, turned south and lost view over hill. no further observations. within 100mts of survey location	pair; probable breeding	JH
HH012	BR 1	07/06/2023	09:51	Hen Harrier	1	dry-humid acid grassland, conifer plantation and improved agricultural grassland, hunting, landed, male hen harrier hunting over dry-humid acid grassland, appeared to drop down in northwest corner of field but may have continued behind cover of terrain	suitable nesting habitat; possible breeder	DM
HH013	BR 1	07/06/2023	14:36	Hen Harrier	1	dry-humid acid grassland, conifer plantation and improved agricultural grassland, hunting, male hunting along fence line by edge of conifers low to ground 3-5m. flew south along conifers then west along ridge. lost sight over ridgeline.	suitable nesting habitat; possible breeder	DM
HH014	BR 1	16/06/2023	09:16	Hen Harrier	1	wet grassland, conifer plantation and scrub, slow flight over wet grassland. male bird, flew from west, continued east over forest.	suitable nesting habitat; possible breeder	JH
HH015	BR 1	16/06/2023	11:43	Hen Harrier	2	wet grassland, conifer plantation and scrub, flying together over wet grassland, male & female birds., flying between road and derelict farmhouse, continued east	pair; probable breeding	JH
HH018	BR 1	21/06/2023	16:08	Hen Harrier	1	upland blanket bog and conifer plantation, hunting, male hunting towards doo lough	probable nest site; probable breeding	SD
HH021	BR 1	13/07/2023	14:08	Hen Harrier	1	improved agricultural grassland, conifer plantation and dry-humid acid grassland, flying, male got up and flew west and	suitable nesting habitat; possible breeder	DM

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
						low to ground along tree line prior to survey to start on arrival.		
HH022	BR 1	13/07/2023	17:03	Hen Harrier	1	dry-humid acid grassland, conifer plantation and improved agricultural grassland, hunting, calling, female hen harrier flew in slowly from east and 50m height. hunted low over field for 2 mins, then travelled south uphill along tree line, making several calls while flying higher at top of conifers while beside the ESB corridor. lost sight over ridge, no prey.	suitable nesting habitat; possible breeder	DM
HH023	BR 1	13/07/2023	18:51	Hen Harrier	1	dry-humid acid grassland, conifer plantation and improved agricultural grassland, hunting, female hunted over fields and along treeline heading south. lost sight over ridge line. no prey	suitable nesting habitat; possible breeder	DM
HH024	BR 1	17/07/2023	08:17	Hen Harrier	1	wet grassland, conifer plantation and scrub, flew from west-eastwards across lands adjacent to buildings. female., many observations at this location.	suitable nesting habitat; possible breeder	JH
HH025	BR 1	17/07/2023	09:37	Hen Harrier	1	upland blanket bog, conifer plantation and wet heath, emerged from wood (near power lines) turned and flew south over hill.	suitable nesting habitat; possible breeder	JH
HH026	BR 1	19/07/2023	08:00	Hen Harrier	1	dry-humid acid grassland, conifer plantation and lowland blanket bog, hunting, male hunting over rough ground flying low (5-10m) around 50m from edge of conifer plantation travelling north/northwest. flew out over conifers at northwest of field toward doo lough, lost sight over trees.	suitable nesting habitat; possible breeder	DM
HH027	BR 1	19/07/2023	08:00	Hen Harrier	1	dry-humid acid grassland and conifer plantation, hunting	pair; probable breeding	SD
HH029	BR 1	19/07/2023	09:53	Hen Harrier	1	dry-humid acid grassland and conifer plantation, hunting, landed, female hunting over field, appeared to land at northwest corner of field by treeline but may also have continued as view obscured by topography.	suitable nesting habitat; possible breeder	DM
HH031	BR 4	19/07/2023	11:25	Hen Harrier	1	improved agricultural grassland, conifer plantation and dry-humid acid grassland, commuting, male flying east just over tree tops past cottages.	suitable nesting habitat; possible breeder	DM
HH032	BR 4	19/07/2023	11:32	Hen Harrier	1	improved agricultural grassland, conifer plantation and dry-humid acid grassland, hunting, male hunting over rough ground heading east.	suitable nesting habitat; possible breeder	DM
HH033	BR 4	19/07/2023	11:56	Hen Harrier	2	dry-humid acid grassland, lowland blanket bog and conifer plantation, calling, flying, perched, pair in flight together over 2nd rotation conifers (2yo), lots of calling (whistle), male perched.	pair; probable breeding	DM

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
HH034	BR 4	19/07/2023	12:03	Hen Harrier	1	conifer plantation, dry-humid acid grassland and cutover bog, flying, female got up and left to north	pair; probable breeding	DM
HH044	BR2	07/04/2024	12:39	Hen Harrier	1	raised bog and conifer plantation, flying, adult female ringtail flying west then turning back east.	pair; probable breeding	SD
HH045	BR2	12/04/2024	12:13	Hen Harrier	1	upland blanket bog, cutover bog and conifer plantation, flying, mobbed, hen harrier male travelling low east over bog, came to cliff/hill, was then mobbed by a hooded crow for 10 seconds and began soaring on updraft. after rising to 200m height, left to east toward the 2023 nest site. total flight time around 230 seconds.	suitable nesting habitat; possible breeder	DM
HH051	BR 4	20/04/2024	08:37	Hen Harrier	2	raised bog and conifer plantation, soaring, female seen at 8:37 flying low approx. 30-35m flying in a circle rising to 35m falling to 10m. the female then turned north and started soaring. when the female started soaring the male hen harrier. came from the northeast. they soared together for 6 minutes. as they flew west, the female came down on top of the male mid-flight. the male turned then flew underneath the female and they flew together separated by 1-3m going west. when they started soaring together, they were approx. 100m apart as they flew west, they got closer together. separated by only one to three metres.	pair; probable breeding	SD
HH053	BR 4	20/04/2024	10:02	Hen Harrier	2	raised bog and conifer plantation, flying, landed, two male hen harrier flew south together then turned east and then north. they seemed to fly together for a minute. while flying north one male went to ground out of view and the other male went east over the hills to the east through the wind farm.	suitable nesting habitat; possible breeder	SD
HH055	BR 4	20/04/2024	10:22	Hen Harrier	1	raised bog and conifer plantation, hunting, adult male hen harrier. hunting west low for approximately 2 mins	suitable nesting habitat; possible breeder	SD
HH056	BR 4	20/04/2024	10:31	Hen Harrier	1	raised bog and conifer plantation, soaring, 1 female hen harrier. soaring to 150m plus then heading west in the same direction as the male did for no.5 observation. the female was flying for approx. 3 mins	suitable nesting habitat; possible breeder	SD
HH057	BR 4	20/04/2024	10:42	Hen Harrier	2	raised bog and conifer plantation, soaring, 1 male and 1 female hen harrier. soaring together approx. 80m south of vantage point then heading west. flight duration for 2 mins.	pair; probable breeding	SD
HH058	BR 4	20/04/2024	11:02	Hen Harrier	1	raised bog and conifer plantation, flying, 1 adult male hen harrier. flying from west to east low across possible nest site. flight lasted approx. 3 mins	suitable nesting habitat; possible breeder	SD

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
HH061	BR 1	25/04/2024	08:40	Hen Harrier	1	conifer plantation, immature woodland and lowland blanket bog, very short low flight over 2nd rotation conifer, perched on tree stump. female	pair; probable breeding	JH
HH062	BR 1	25/04/2024	08:34	Hen Harrier	1	conifer plantation, immature woodland and lowland blanket bog, low flight over young plantation and bogland. flying NW, most activity over 2nd rotation conifer plantation. male bird	pair; probable breeding	JH
HH063	BR 1	25/04/2024	09:40	Hen Harrier	1	conifer plantation, lowland blanket bog and immature woodland, flying, female made short flight and returned to same area.	pair; probable breeding	JH
HH065	BR 1	25/04/2024	09:43	Hen Harrier	1	conifer plantation, lowland blanket bog and immature woodland, flying from west to east, last view behind mature plantation.	pair; probable breeding	JH
HH067	BR 1	25/04/2024	10:28	Hen Harrier	1	conifer plantation, immature woodland and lowland blanket bog, flying, male from n-w flying at 20m height. lost view due to sloping ground.	pair; probable breeding	JH
HH068	BR2	25/04/2024	14:04	Hen Harrier	2	conifer plantation and lowland blanket bog, flying, two male birds flying 80-100m apart. both birds came from the east, flying along boundary of woodland. they then returned along the same flight line.	flyover; non-breeding	JH
HH073	BR 4	03/05/2024	14:32	Hen Harrier	1	conifer plantation and dry-humid acid grassland, hunting, second calendar year male hen harrier hunting along field margin and in bushes, continued south into Booltiagh.	summering; non-breeding	DM
HH074	BR2	11/05/2024	16:25	Hen Harrier	1	raised bog, flying east, female or ringtail seen flying very high up to 150m then flying east	suitable nesting habitat; possible breeder	SD
HH075	BR3	11/05/2024	18:15	Hen Harrier	1	raised bog, flying, one male hen harrier hunting from west to east then turning north and rising to >150m and flying northeast.	suitable nesting habitat; possible breeder	SD
HH076	BR3	11/05/2024	19:20	Hen Harrier	1	raised bog, hunting, one male hen harrier hunting from west to east. flying across bog heading southeast.	suitable nesting habitat; possible breeder	SD
HH077	BR3	11/05/2024	19:33	Hen Harrier	1	raised bog, hunting, one male hen harrier hunting from east to west across bog.	suitable nesting habitat; possible breeder	SD
HH082	BR 1	26/05/2024	11:06	Hen Harrier	1	conifer plantation, lowland blanket bog and wet grassland, flying, hunting, flying at canopy height, then to ground. visible again after 40 sec. male	pair; probable breeding	JH
HH083	BR 1	26/05/2024	12:14	Hen Harrier	1	conifer plantation, lowland blanket bog and wet grassland, flying, known site to the east. returned in the direction of that nest site. male. n-w over plantation. went to ground, spotted again 1 min later flying east.	pair; probable breeding	JH
HH085	BR 4	31/05/2024	14:15	Hen Harrier	1	raised bog and conifer plantation, hunting, hunting a passerine, hunting west	suitable nesting habitat; possible breeder	SD

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
HH088	BR 4	31/05/2024	16:35	Hen Harrier	1	raised bog and conifer plantation, flying, male flying west low	suitable nesting habitat; possible breeder	SD
HH089	BR 4	31/05/2024	19:31	Hen Harrier	1	raised bog and conifer plantation, flying, male flying west low	suitable nesting habitat; possible breeder	SD
HH091	BR2	12/06/2024	18:09	Hen Harrier	1	cutover bog and conifer plantation, hunting, hen harrier male hunting along bog and continued hunting along conifer plantation (young 2nd rotation), lost sight behind hill.	singing male; possible breeder	DM
HH092	BR2	12/06/2024	18:22	Hen Harrier	1	conifer plantation, carrying prey, food pass, hunting, survey reference for male hen harrier: hen harrier male got up with prey (avian), flew up to 40m, swooped down and made a food pass to a female, then went back to hunting immediately. female plumage was pale (blondie).	occupied nest; confirmed breeding	DM
HH119	BR2	28/07/2024	09:10	Hen Harrier	1	conifer plantation and lowland blanket bog, flying just over canopy of conifer plantation, male bird. possibly hunting. observed for 60 sec, slow indirect flight.	suitable nesting habitat; possible breeder	JH

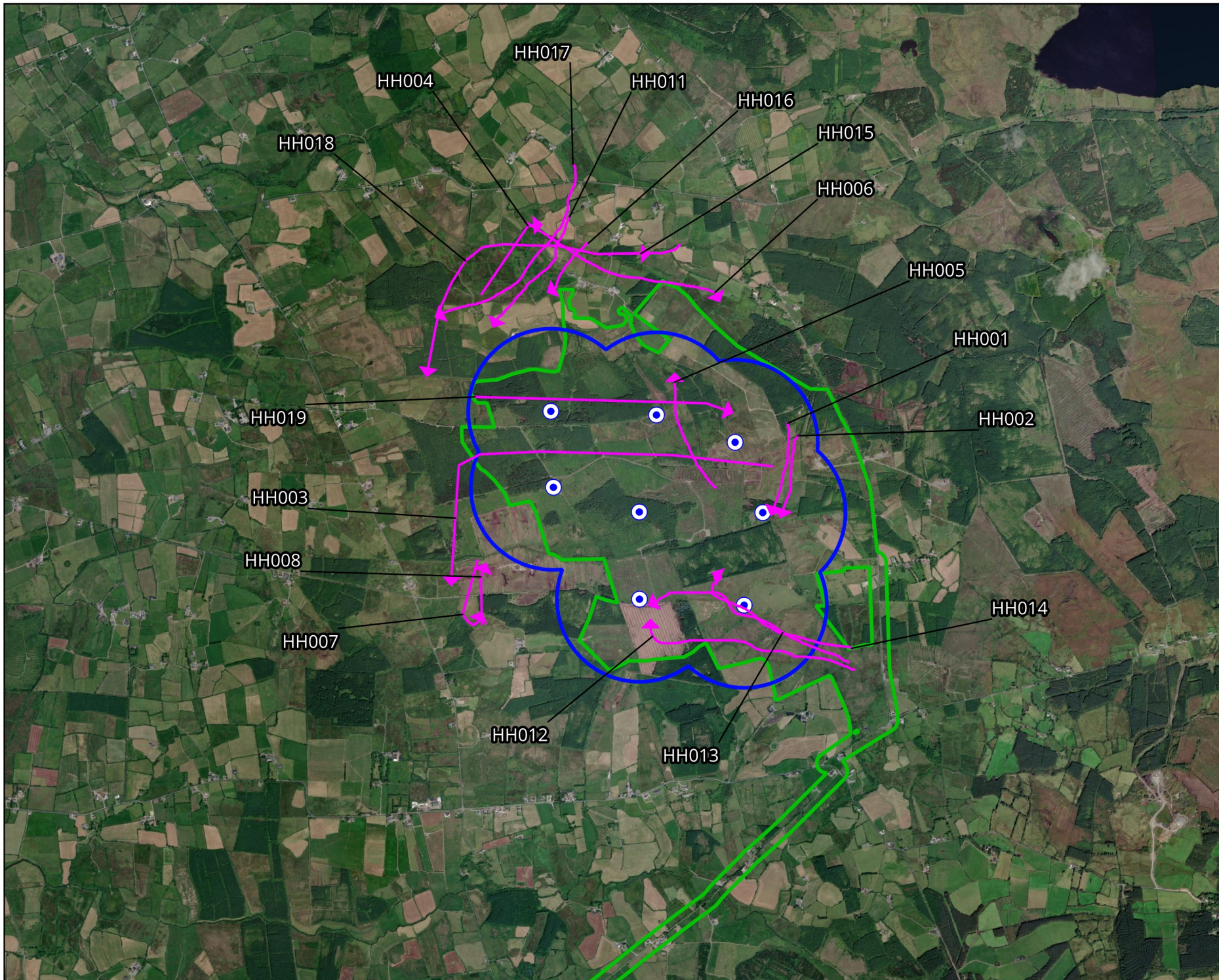
Table 7-4-4 Hen harrier, winter walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
HH001	07/11/2024	10:14	Hen Harrier	1	cutover bog and conifer plantation; hunting, male hunting over cutover bog for 12 minutes then left to east over conifer plantation	DM

Table 7-4-5 Hen harrier, hen harrier roost survey data

Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH002	HHVP2	27/10/2023	17:55	Hen Harrier	1	lowland blanket bog, flying, helicopter spooked hen harrier, flew south over bog and conifers to the south.	SD
HH003	HHVP3	25/11/2023	15:18	Hen Harrier	1	lowland blanket bog, flying, ringtail hen harrier, flying east low then crossed the road and flew between conifer plantations	SD
HH005	HHVP3	15/12/2023	14:10	Hen Harrier	1	lowland blanket bog, hunting along bog going north, adult male	SD
HH007	HHVP3a	18/01/2024	15:59	Hen Harrier	1	cutover bog and conifer plantation, hunting, male flew through west from bog travelling east over young conifer plantation 2nd rotation and out over trees to northeast by chm1's most western turbine.	DM
HH008	HHVP4a	18/01/2024	16:48	Hen Harrier	1	cutover bog and conifer plantation, hunting, male flying in from bog, possibly hunting in flight, potentially looking to settle or still hunting, the bird then spotted the surveyor and turned flying northeast-east (nee) back out the same way as the previous flight-line.	DM
HH009	HHVP3b	18/01/2024	15:57	Hen Harrier	1	lowland blanket bog, flying, adult male hen harrier flew across the bog east turned and did a small circle as it tried to pick something from the ground.	SD

Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH010	HHVP3b	18/01/2024	16:50	Hen Harrier	1	lowland blanket bog, hunting, adult male, flew from west to east along drain that runs across bog.	SD
HH011	HHVP 5b	24/01/2024	17:18	Hen Harrier	1	conifer plantation and cutover bog, flying, male flying at ~15-20m height, flying west, lost sight as it passed over mature forestry, heading in the direction of the bog toward middle of site.	DM
HH012	HHVP 5b	24/01/2024	17:11	Hen Harrier	1	conifer plantation and cutover bog, flushed, perched, possible ringtail disturbed by passing truck, perched in tree until truck left the area and then dropped down after.	DM

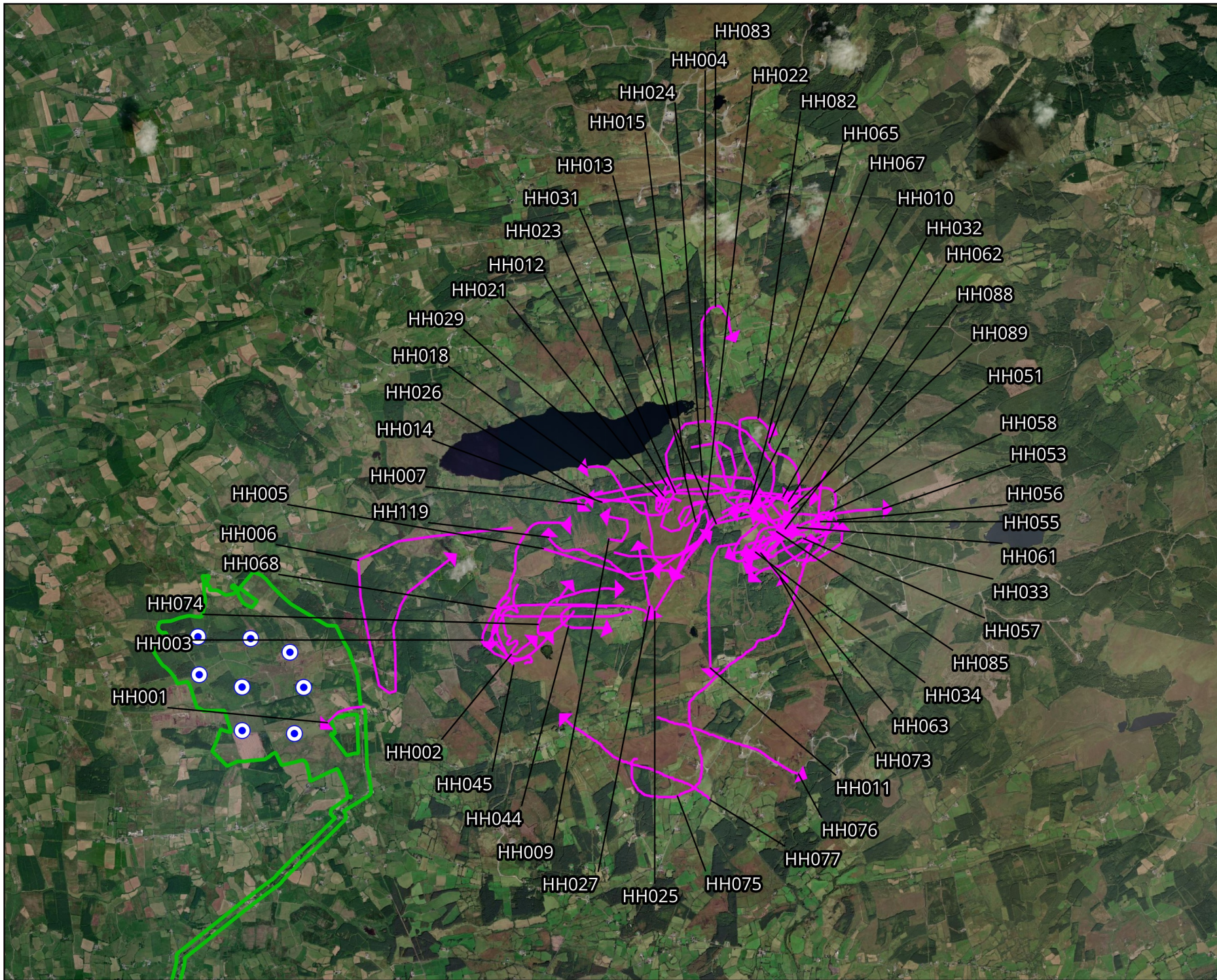


Map Legend

- EIA Site Boundary
- Proposed Turbine Layout
- 500m Buffer of Proposed Turbine Layout
- Flightline



Drawing Title Hen Harrier Observations Vantage Point Surveys	
Project Title Proposed Cahermurphy West Wind Farm	
Drawn By CC	Checked By PM
Project No. 230403	Drawing No. Fig 7-4-2
Scale 1:30,000	Date 04.09.25
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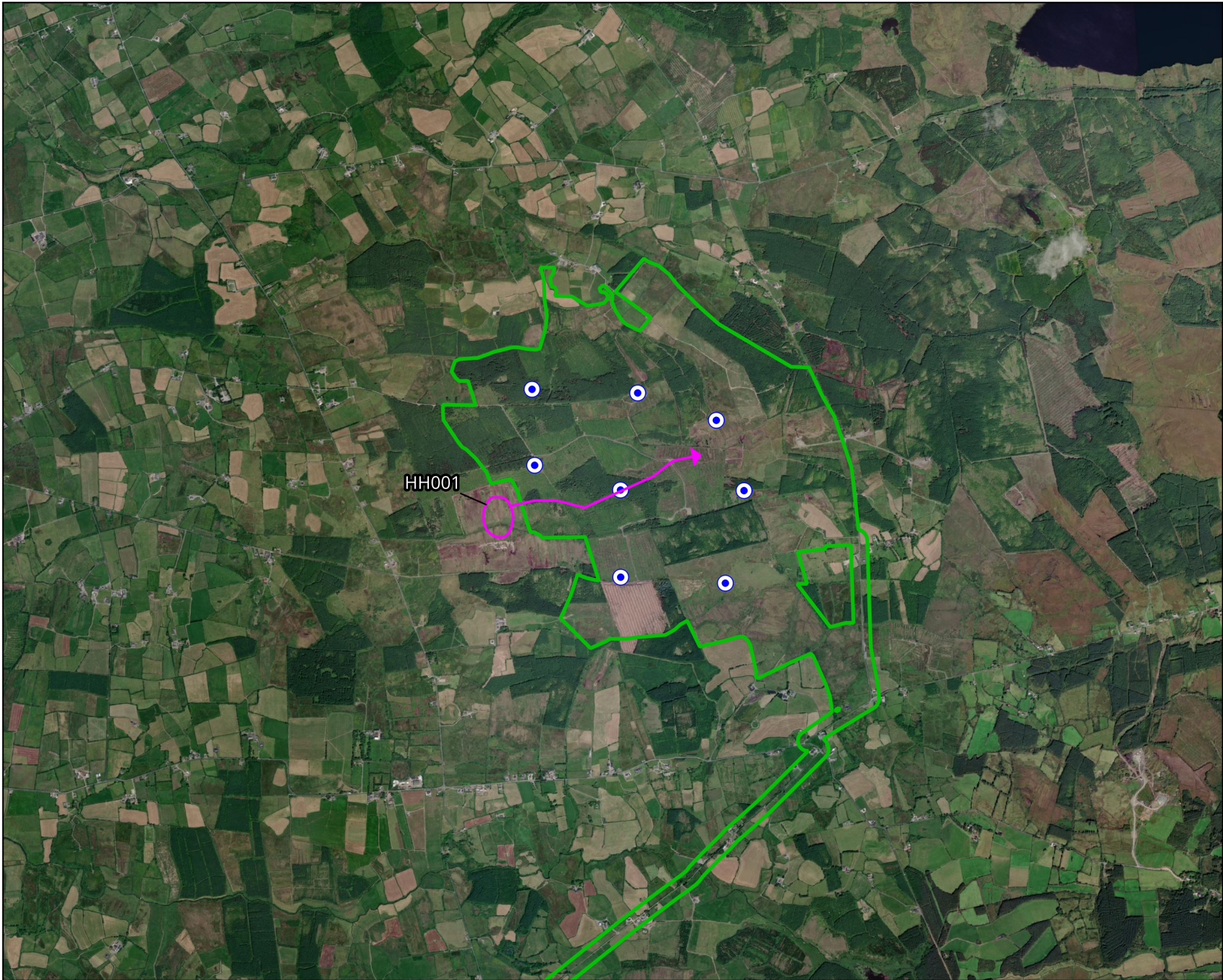


Map Legend




- EIAR Site Boundary
- Proposed Turbine Layout
- Flightline



Drawing Title Hen Harrier Observations Breeding Raptor Surveys	
Project Title Proposed Cahermurphy West Wind Farm	
Drawn By CC	Checked By PM
Project No. 230403	Drawing No. Fig 7-4-3
Scale 1:60,000	Date 04.09.25
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Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline

HH001



Drawing Title
**Hen Harrier Observations
 Winter Walkover Survey**

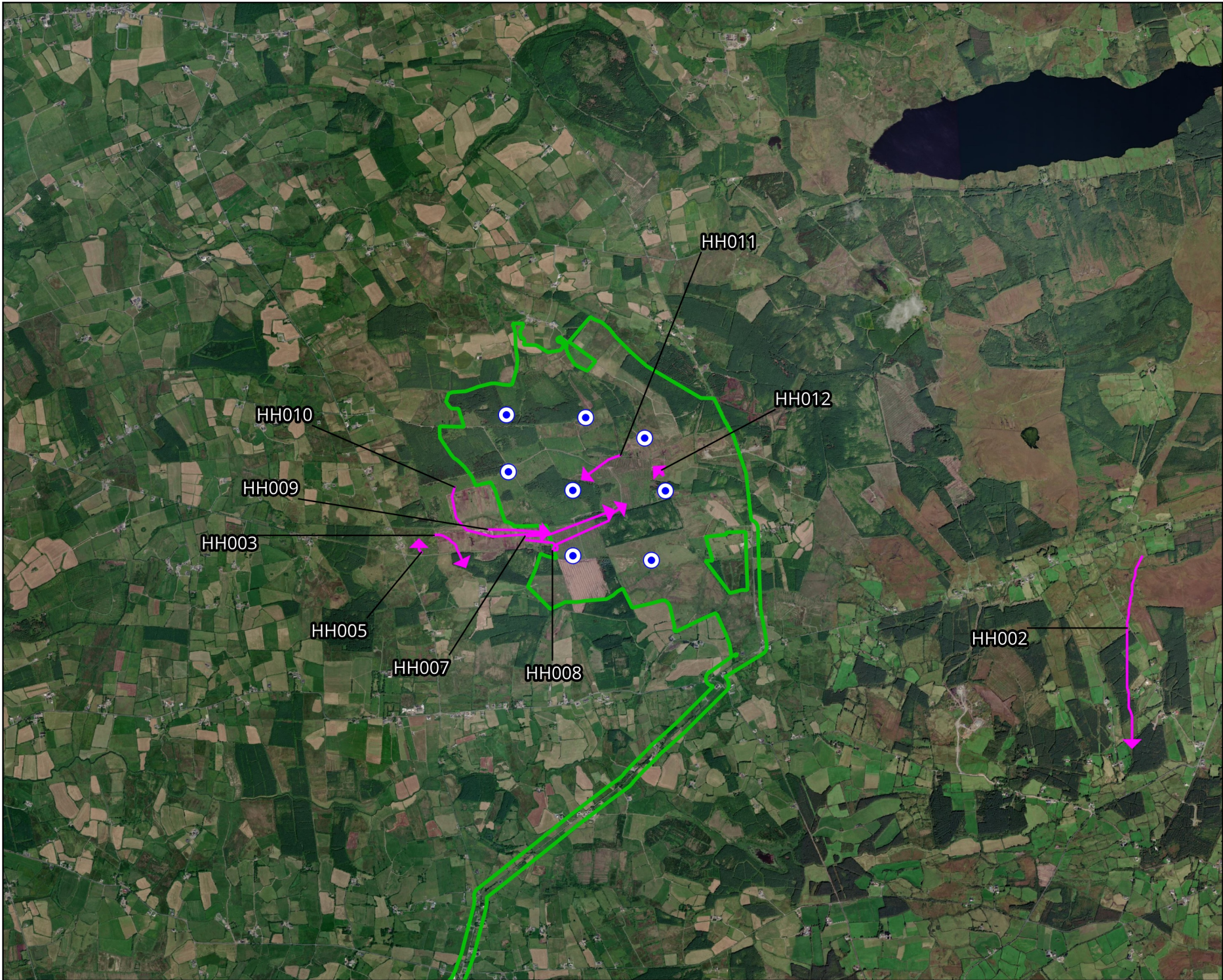
Project Title
**Proposed Cahermurphy
 West Wind Farm**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-4
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Scale 1:30,000	Date 04.09.25
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- Map Legend**
- EIAR Site Boundary
 - Proposed Turbine Layout
 - Flightline



Drawing Title	
Hen Harrier Observations Hen Harrier Roost Survey	
Project Title	
Proposed Cahermurphy West Wind Farm	
Drawn By	Checked By
CC	PM
Project No.	Drawing No.
230403	Fig 7-4-5
Scale	Date
1:40,000	04.09.25

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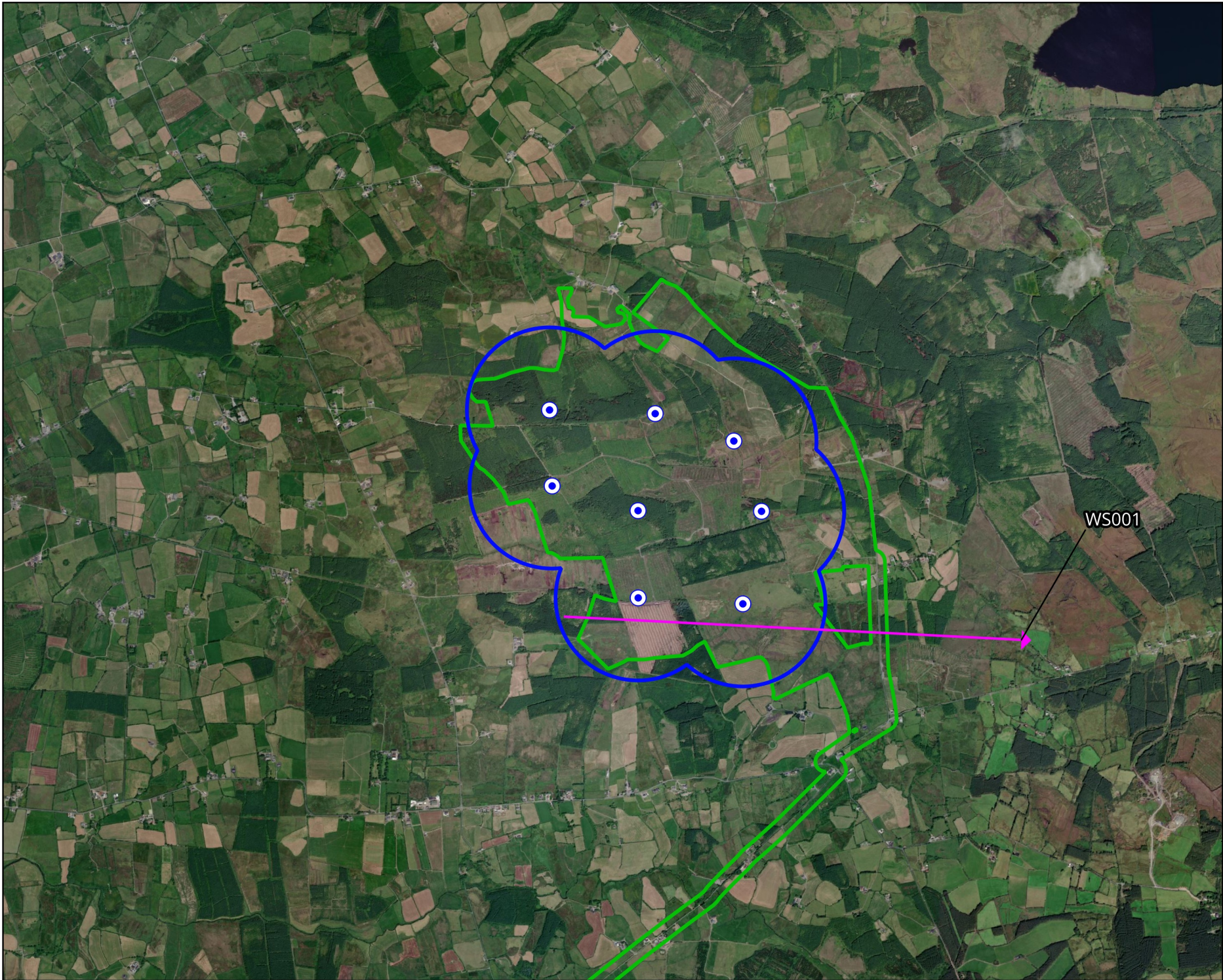
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WHOOPER SWAN

Table 7-4-6 Whooper swan, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS001	VP2	27/12/2024	12:48	Whooper Swan	1	70	0	0	70	0	improved agricultural grassland, cutover bog and conifer plantation; single bird commuting in a very direct flight east., passing through site. not previously recorded.	JH



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Flightline



Drawing Title
Whooper Swan Observations
Vantage Point Surveys

Project Title
Proposed Cahermurphy
West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-6
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Scale 1:30,000	Date 04.09.25
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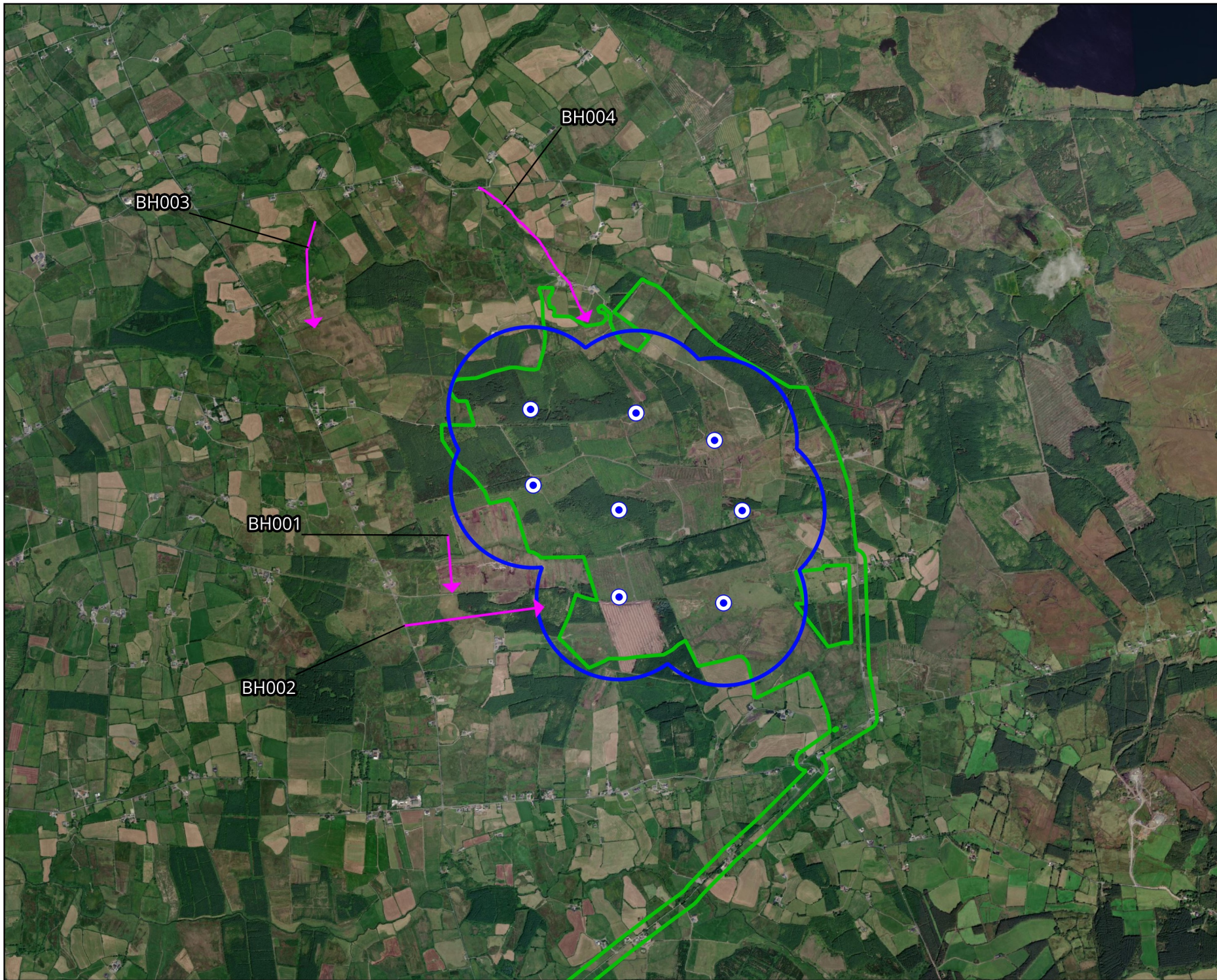
BLACK-HEADED GULL

Table 7 - 4 - 7 Black-headed gull, vantage point survey data





Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BH001	VP4	21/04/2023	10:21	Black-headed Gull	1	35	0	0	35	0	improved agricultural grassland, conifer plantation and lowland blanket bog; commuting	DM
BH002	VP4	21/04/2023	10:43	Black-headed Gull	2	32	0	0	32	0	improved agricultural grassland, conifer plantation and lowland blanket bog; commuting	DM
BH003	VP1	23/04/2023	11:38	Black-headed Gull	3	180	160	20	0	0	dry meadows and grassy verges, dry calcareous and neutral grassland and improved agricultural grassland; feeding	JH
BH004	VP1	16/09/2024	09:17	Black-headed Gull	5	40	0	0	40	0	improved agricultural grassland; flying south	SD

Table 7 - 4 - 8 Black-headed gull, incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH001	Hen Harrier Roost Survey; HHVP 7	28/11/2023	14:08	Black-Headed Gull	1	improved agricultural grassland and conifer plantation; travelling	DM



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Flightline



Drawing Title
**Black-headed Gull Observations
 Vantage Point Surveys**

Project Title
**Proposed Cahermurphy
 West Wind Farm**

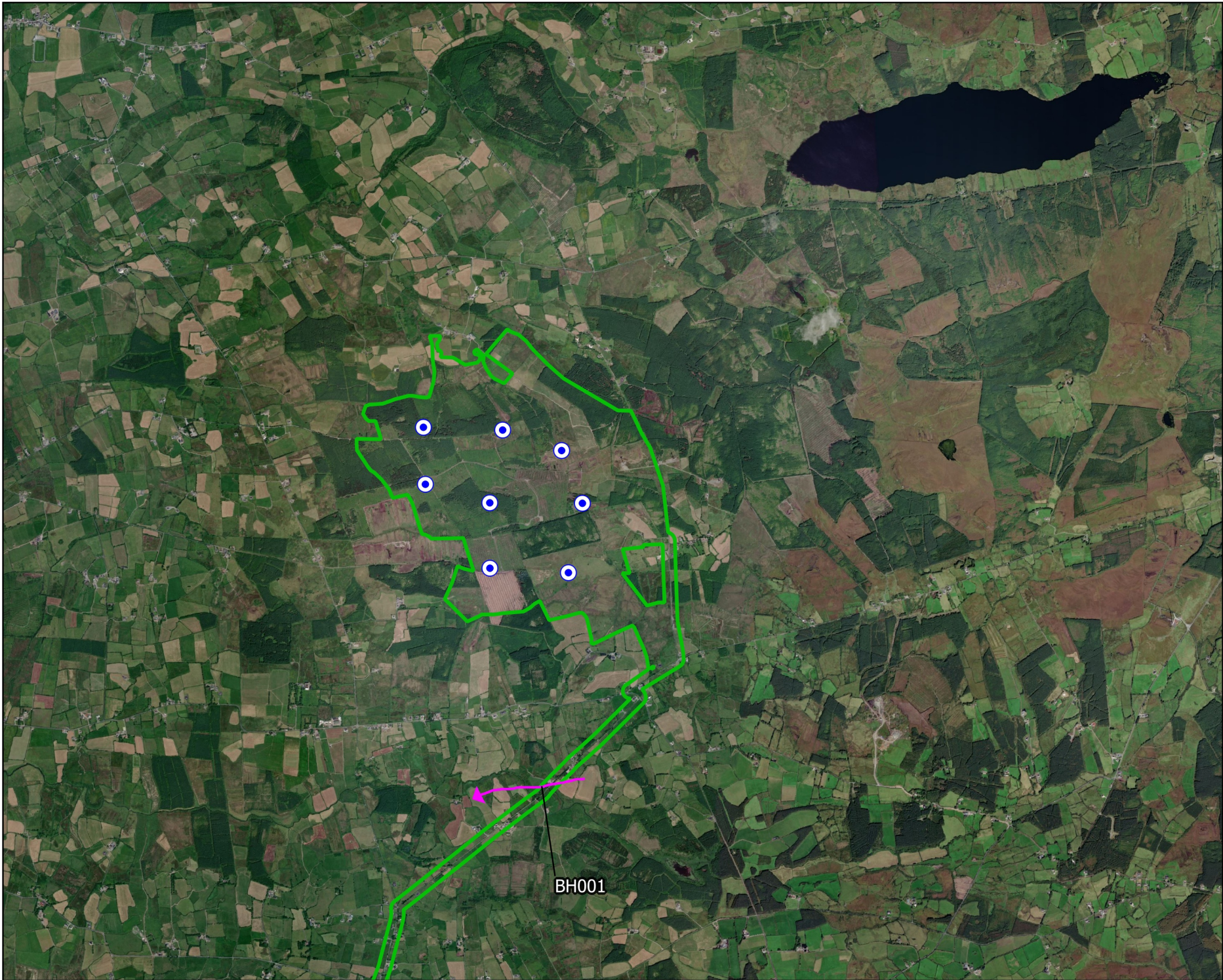
Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-7
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Scale 1:30,000	Date 04.09.25
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Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title
**Black-headed Gull
 Incidental Observations**

Project Title
**Proposed Cahermurphy
 West Wind Farm**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-8
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Scale 1:40,000	Date 04.09.25
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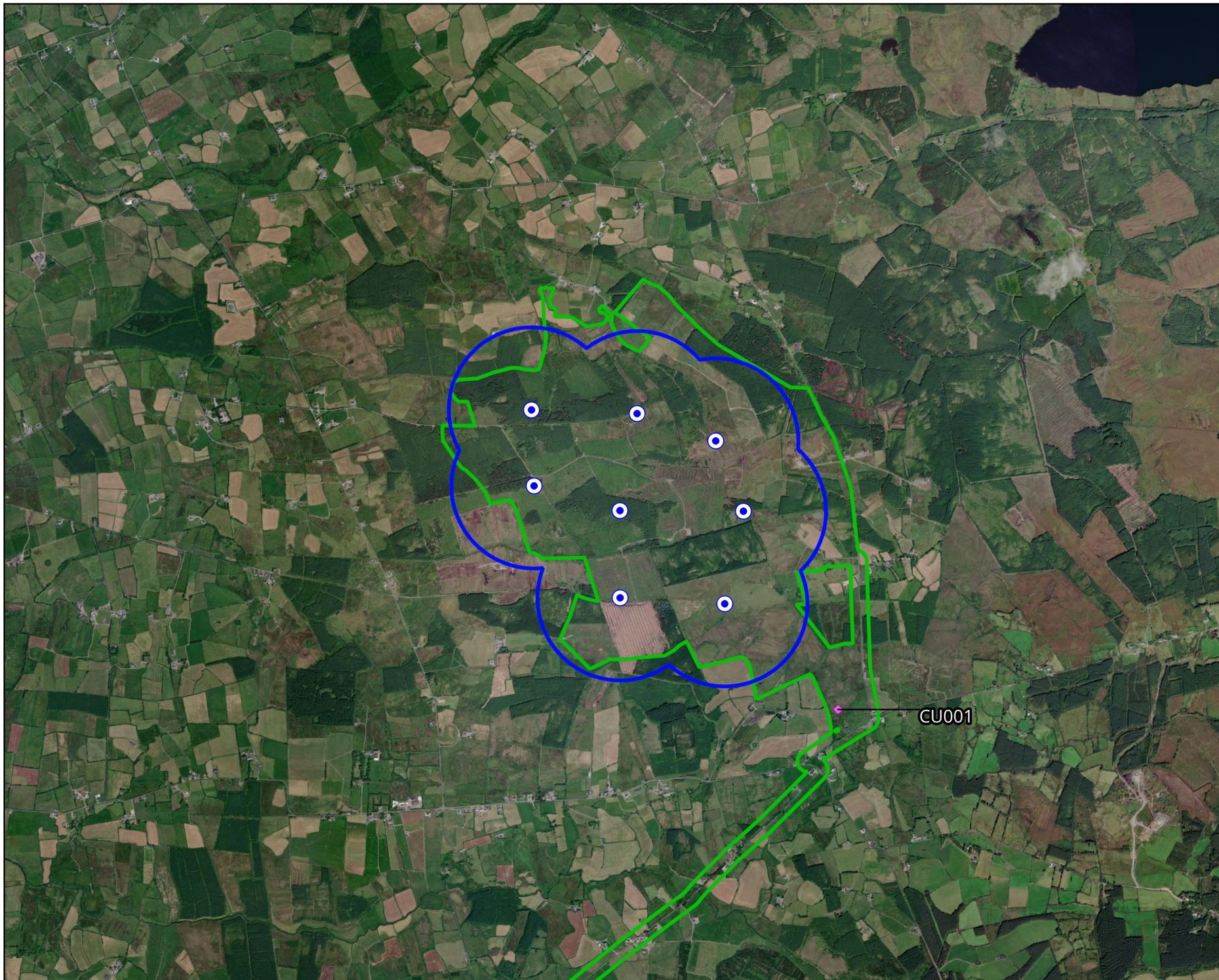
BH001

5.





CURLEW

Table 7-4-9 Curlew, Vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
CU001	VP2	31/08/2023	09:36	Curlew	1	-	-	-	-	-	improved agricultural grassland, lowland blanket bog and conifer plantation; foraging, foraging in cut silage field.	DM



Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Observation



Drawing Title
Curlew Observations
Vantage Point Surveys

Project Title
Proposed Cahermurphy
West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-9
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Scale 1:30,000	Date 04.09.25
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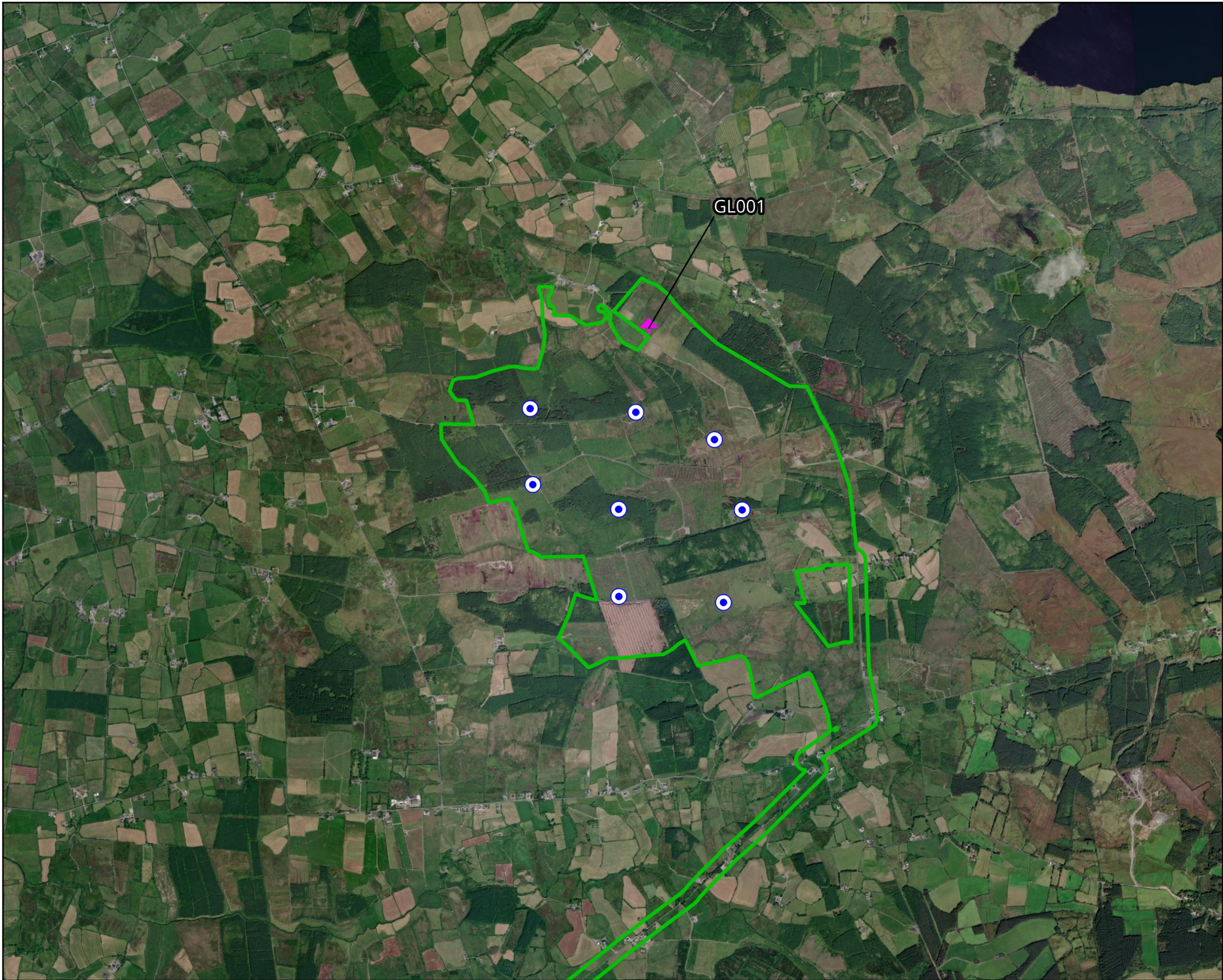
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6.




GREY WAGTAIL

Table 7-4-10 Grey wagtail, breeding walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
GL001	13/07/2024	-	Grey Wagtail	1		DM



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  Flightline

GL001



Drawing Title
 Grey Wagtail Observations
 Breeding Walkover Surveys

Project Title
 Proposed Cahermurphy
 West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-10
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Scale 1:30,000	Date 04.09.25
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7.

KESTREL

Note: Sensitive records relating to breeding sites have been omitted from this appendix and are presented separately in Appendix 7-5.

Table 7 - 4 - 11 Kestrel, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.001	VP3	20/04/2023	16:12	Kestrel	1	9	9	0	0	0	upland blanket bog; hunting, hunting along drain in centre of habitat	SD
K.002	VP2	26/04/2023	12:28	Kestrel	1	10	10	0	0	0	conifer plantation and scrub; hovering, hovered over woodland for short period.	JH
K.003	VP2	31/05/2023	09:13	Kestrel	1	12	12	0	0	0	improved grassland, improved grassland and treelines; hunting, male, mobbed by rooks in field, perched on spruce tree.	JH
K.004	VP2	31/05/2023	11:41	Kestrel	1	25	10	0	15	0	improved agricultural grassland and exposed sand, gravel or till; hovering, hunting, over old quarry, recolonising ground.	JH
K.005	VP4	13/06/2023	13:35	Kestrel	1	30	0	30	0	0	dry calcareous and neutral grassland and conifer plantation; hovering, flying, hovering for 10 seconds, flew away south	JH
K.006	VP2	17/06/2023	10:05	Kestrel	1	30	0	0	30	0	conifer plantation; hunting, 40m	SD
K.007	VP3	19/07/2023	08:52	Kestrel	1	60	40	20	0	0	lowland blanket bog, conifer plantation and cutover bog; flying, circling over small area.	JH
K.008	VP3	19/07/2023	09:22	Kestrel	3	600	600	0	0	0	lowland blanket bog, conifer plantation and cutover bog; flying, one adult and 2 juveniles	JH
K.009	VP3	19/07/2023	12:42	Kestrel	3	250	250	0	0	0	lowland blanket bog, conifer plantation and cutover bog; perched on boulders, short low flights., same area as above.	JH
K.010	VP3	19/07/2023	13:05	Kestrel	1	75	0	30	45	0	conifer plantation; hovering, over spruce plantation.	JH
K.011	VP3	19/07/2023	14:46	Kestrel	3	4400	2200	2200	0	0	lowland blanket bog and scrub; perched for long periods., remained for remainder of survey.	JH
K.012	VP4	27/07/2023	08:48	Kestrel	2	30	10	20	0	0	dry calcareous and neutral grassland, conifer plantation and scrub; commuting south. indirect flight, adult female + juvenile, one flew east and other southwest.	JH
K.013	VP4	27/07/2023	09:58	Kestrel	1	45	0	20	25	0	dry calcareous and neutral grassland, conifer plantation and scrub; hovering, female, regular hunting area.	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.014	VP4	27/07/2023	10:05	Kestrel	1	20	20	0	0	0	dry calcareous and neutral grassland, conifer plantation and scrub; commuting, female, same area as before.	JH
K.015	VP4	27/07/2023	10:26	Kestrel	1	30	30	0	0	0	scrub and conifer plantation; hunting over scrub., female again.	JH
K.016	VP4	27/07/2023	11:49	Kestrel	1	40	0	40	0	0	dry calcareous and neutral grassland, conifer plantation and scrub; hunting, female	JH
K.017	VP4	27/07/2023	13:41	Kestrel	2	25	0	25	0	0	dry calcareous and neutral grassland and conifer plantation; commuting, hunting, flying, adult female and juvenile, slow flight together	JH
K.018	VP3	17/08/2023	14:08	Kestrel	1	130	0	0	130	0	upland blanket bog and conifer plantation; flying, hunting	SD
K.019	VP1	25/08/2023	17:10	Kestrel	1	70	15	55	0	0	improved agricultural grassland and conifer plantation; hunting, female hunting along flight line	DM
K.020	VP1	25/08/2023	20:32	Kestrel	1	42	2	40	0	0	improved agricultural grassland and conifer plantation; hunting, male hunting over fields then perched on fence post, no prey	DM
K.021	VP4	26/08/2023	16:03	Kestrel	1	27	12	15	0	0	cutover bog, lowland blanket bog and conifer plantation; hunting, male hunting over bog and fields	DM
K.022	VP4	26/08/2023	17:10	Kestrel	1	115	5	95	15	0	improved agricultural grassland, cutover bog and conifer plantation; hunting, female hunting over fields and bog, landed at end of flight line. mobbed by 10 meadow pipits ("x" on map)	DM
K.023	VP4	26/08/2023	19:14	Kestrel	1	70	25	10	25	0	improved agricultural grassland and conifer plantation; hunting, male hunting over fields	DM
K.024	VP4	26/08/2023	19:39	Kestrel	1	85	85	0	0	0	improved agricultural grassland and conifer plantation; hunting, male hunting, moving north	DM
K.025	VP4	27/08/2023	16:21	Kestrel	1	29	0	18	11	0	improved agricultural grassland and conifer plantation; hunting, male hunting over fields and to the south	DM
K.026	VP2	27/08/2023	19:08	Kestrel	1	12	12	0	0	0	improved agricultural grassland, conifer plantation and cutover bog; mobbed, male, mobbed by raven	DM
K.027	VP2	17/09/2023	11:58	Kestrel	1	23	0	0	23	0	improved agricultural grassland; flying	SD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.028	VP3	22/09/2023	10:43	Kestrel	1	50	45	5	0	0	improved agricultural grassland, cutover bog and conifer plantation; hunting, male hunting over site, took path around turbine.	DM
K.029	VP3	22/09/2023	12:28	Kestrel	1	45	0	25	20	0	conifer plantation, improved agricultural grassland and cutover bog; hunting, male, hunting around chmy1 turbine	DM
K.030	VP3	22/09/2023	13:26	Kestrel	1	135	0	50	85	0	improved agricultural grassland, conifer plantation and cutover bog; hunting, male, hunting around chmy1 turbine	DM
K.031	VP1	24/09/2023	10:51	Kestrel	1	8	8	0	0	0	improved agricultural grassland and conifer plantation; perched, flying, female perched then flew west along road.	DM
K.032	VP4	25/09/2023	13:09	Kestrel	1	120	45	60	15	0	improved agricultural grassland, conifer plantation and cutover bog; hunting, mobbed, female hunting on site, left after being mobbed by 40 meadow pipits	DM
K.033	VP1	25/09/2023	13:58	Kestrel	1	200	40	120	40	0	improved agricultural grassland and conifer plantation; hunting, female hunting around fields.	DM
K.034	VP3	13/10/2023	09:52	Kestrel	1	18	0	0	18	0	conifer plantation, cutover bog and lowland blanket bog; hunting, hunting near second rotation conifer plantation, continued south	DM
K.035	VP3	13/10/2023	10:11	Kestrel	1	41	29	12	0	0	improved agricultural grassland, conifer plantation and cutover bog; hunting, female, hunting, perched in spruce by ditch	DM
K.036	VP3	13/10/2023	10:14	Kestrel	1	3	3	0	0	0	improved agricultural grassland, conifer plantation and cutover bog; flying, female, left perch to south	DM
K.037	VP3	13/10/2023	10:23	Kestrel	1	88	0	88	0	0	conifer plantation, improved agricultural grassland and cutover bog; hunting, female, hunting flight	DM
K.038	VP3	13/10/2023	13:05	Kestrel	1	23	5	6	12	0	conifer plantation, improved agricultural grassland and cutover bog; flying, mobbed, mobbed by hooded crow, flew to south	DM
K.039	VP1	25/10/2023	11:42	Kestrel	1	7	7	0	0	0	improved agricultural grassland and conifer plantation; flying, landed, male got up when heron went past and landed soon after.	DM
K.040	VP2	28/10/2023	13:17	Kestrel	1	50	0	30	20	0	cutover bog, improved agricultural grassland and conifer plantation; hovering, flying, hunting, emerged from spruce plantation	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.041	VP4	17/11/2023	12:17	Kestrel	1	22	0	22	0	0	improved agricultural grassland and conifer plantation; commuting, male commuted through flying quickly	DM
K.042	VP4	17/11/2023	12:25	Kestrel	1	19	0	0	19	0	improved agricultural grassland and conifer plantation; hunting	DM
K.043	VP3	07/12/2023	13:01	Kestrel	1	17	0	7	10	0	improved agricultural grassland and conifer plantation; hunting, female hunting on site.	DM
K.044	VP2	19/12/2023	09:26	Kestrel	1	250	0	250	0	0	improved agricultural grassland, treelines and buildings and artificial surfaces; flying, perched, male bird, flew from the west (25s) to perch on trees for 3 min flew north after.	JH
K.045	VP2	19/12/2023	13:11	Kestrel	1	35	25	10	0	0	conifer plantation, immature woodland and wet grassland; hunting, emerged from within woodland. hunted edge of plantation for short time and returned into wood, not the same bird as recorded at 09:26 above	JH
K.046	VP2	25/01/2024	12:36	Kestrel	1	12	0	5	7	0	improved agricultural grassland, conifer plantation and cutover bog; hunting, male hunting, dropped below ridgeline heading toward conifer plantation, lost sight.	DM
K.047	VP4	02/02/2024	08:50	Kestrel	1	12	0	12	0	0	improved agricultural grassland and conifer plantation; commute, commuted quickly north	DM
K.048	VP4	02/02/2024	13:05	Kestrel	1	420	40	80	200	0	improved agricultural grassland and conifer plantation; hunting, female hunting over area over 7 minutes.	DM
K.049	VP3	15/02/2024	11:48	Kestrel	1	20	0	20	0	0	conifer plantation and cutover bog; perched, flying, perched on treetop. then short flight, view lost after 30 metres of flight	JH
K.050	VP2	02/03/2024	13:56	Kestrel	1	45	35	0	10	0	improved agricultural grassland; flying west, male hunting	SD
K.051	VP3	20/03/2024	14:14	Kestrel	1	70	10	60	0	0	conifer plantation, immature woodland and cutover bog; hovering, landing, breeding recorded around here last year.	JH
K.052	VP4	09/04/2024	12:34	Kestrel	1	90	0	90	0	0	dry-humid acid grassland, scrub and conifer plantation; flying, hunting, curved flight, last view over woodland.	JH
K.055	VP2	28/05/2024	16:35	Kestrel	1	45	0	30	15	0	improved agricultural grassland; hunting south	SD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.056	VP3	10/06/2024	17:36	Kestrel	1	265	0	150	115	0	conifer plantation, improved agricultural grassland and cutover bog; hunting, kestrel male hunting across site.	DM
K.057	VP1	12/07/2024	10:57	Kestrel	1	75	0	0	75	0	conifer plantation and cutover bog; hunting, hunting along crest of hill.	DM
K.058	VP1	12/07/2024	13:27	Kestrel	1	35	0	20	15	0	improved agricultural grassland; commuting, male commuting west.	DM
K.059	VP3	14/07/2024	13:02	Kestrel	1	33	0	33	0	0	raised bog; flying north	SD
K.060	VP4	21/07/2024	09:25	Kestrel	1	220	0	40	180	0	dry calcareous and neutral grassland, scrub and immature woodland; hovering, hunting, sometimes hovering, hunting all the time. did not catch any prey.	JH
K.061	VP4	21/07/2024	10:14	Kestrel	1	150	50	100	0	0	dry calcareous and neutral grassland, scrub and conifer plantation; hovering, hunting, hunting at different heights. hovering all the time. did not go to ground at any stage.	JH
K.062	VP4	21/07/2024	11:19	Kestrel	1	220	80	100	40	0	dry calcareous and neutral grassland and treelines; flying, hovering, hunting, flying at various heights	JH
K.063	VP4	21/07/2024	11:29	Kestrel	1	45	0	45	0	0	conifer plantation and scrub; hunting over conifer plantation, female bird	JH
K.064	VP4	21/07/2024	12:05	Kestrel	1	160	0	130	30	0	conifer plantation; hunting over conifer plantation, circling flights, male bird	JH
K.066	VP2	26/07/2024	09:20	Kestrel	1	15	15	0	0	0	improved agricultural grassland, stone walls and other stonework and scrub; flying low to ground., lost view over back of hill.	JH
K.068	VP1	19/08/2024	10:43	Kestrel	1	40	0	40	0	0	improved agricultural grassland; flying northeast	SD
K.069	VP2	20/08/2024	09:15	Kestrel	1	15	0	15	0	0	improved agricultural grassland and conifer plantation; flying west, hunting	SD
K.070	VP2	20/08/2024	13:00	Kestrel	1	25	0	25	0	0	improved agricultural grassland and conifer plantation; flying west	SD
K.073	VP3	22/08/2024	09:41	Kestrel	1	140	100	40	0	0	conifer plantation, cutover bog and dry calcareous and neutral grassland; gliding in the wind. hovering at times., went to ground and not seen again.	JH
K.074	VP3	22/08/2024	10:28	Kestrel	1	40	0	15	25	0	conifer plantation, lowland blanket bog and cutover bog; hovering, flying, first spotted hovering, then flew east, lost view over woodland	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.075	VP3	22/08/2024	10:43	Kestrel	1	300	0	80	220	0	conifer plantation, cutover bog and improved agricultural grassland; hunting at all times. moving from point to point and hovering at each location., didn't go to ground at any stage. continued to hunt out of my view.	JH
K.076	VP3	22/08/2024	12:56	Kestrel	1	40	0	30	10	0	conifer plantation, lowland blanket bog and eroding blanket bog; mobbed, hooded crow continued to attack kestrel, both entered wooded area. no sighting of kestrel or hooded crow after short flight.	JH
K.077	VP3	22/08/2024	13:43	Kestrel	1	40	25	15	0	0	lowland blanket bog, cutover bog and eroding blanket bog; hunting over cut away bog at various heights, entered woodland.	JH
K.078	VP3	14/09/2024	10:42	Kestrel	1	255	0	0	255	0	conifer plantation and wet grassland; hunting then flying west, flying over conifers	SD
K.079	VP3	14/09/2024	12:05	Kestrel	1	30	0	0	30	0	conifer plantation and wet grassland; flying east	SD
K.080	VP1	16/09/2024	07:11	Kestrel	1	50	0	10	40	0	improved agricultural grassland; flying east, northeast	SD
K.081	VP1	16/09/2024	07:28	Kestrel	1	40	0	0	40	0	improved agricultural grassland; flying west	SD
K.082	VP1	16/09/2024	10:51	Kestrel	1	25	0	0	25	0	improved agricultural grassland; flying northwest	SD
K.083	VP4	07/10/2024	10:24	Kestrel	1	50	0	20	30	0	raised bog; flying north	SD
K.084	VP2	08/10/2024	13:00	Kestrel	1	30	0	30	0	0	improved agricultural grassland; flying west	SD
K.085	VP2	08/10/2024	13:48	Kestrel	2	65	0	65	0	0	improved agricultural grassland; flying east, one female, one juvenile	SD
K.086	VP1	22/10/2024	12:05	Kestrel	1	20	20	0	0	0	scrub, hedgerows and improved agricultural grassland; hunting over woodland and scrub., observed for short time, then into dense cover.	JH
K.087	VP1	22/10/2024	12:32	Kestrel	1	50	20	30	0	0	improved agricultural grassland and hedgerows; moving across farmland. hunting low at times., possibly same bird as previous observation at 12:05 above. continued southeast direction.	JH
K.088	VP1	22/10/2024	12:56	Kestrel	1	40	40	0	0	0	Improved agricultural grassland, scrub and drainage ditches; flew to pole where it perched for short time, continued south., mobbed by songbirds.	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.089	VP3	28/10/2024	08:54	Kestrel	2	100	0	80	20	0	wet grassland, conifer plantation and spoil and bare ground; hovering, hunting and flying, both birds following same flight path.one bird arrived from west	JH
K.090	VP3	05/11/2024	12:38	Kestrel	1	15	0	15	0	0	wet grassland; flying then hovering then landing in long grass on prey	SD
K.091	VP2	26/11/2024	15:26	Kestrel	1	25	15	10	0	0	conifer plantation, improved agricultural grassland and dry siliceous heath; emerged from conifer plantation, flew along fence line, before flying north., casual slow flight, re-entered forest	JH
K.092	VP4	04/12/2024	09:26	Kestrel	1	-	-	-	-	-	dry calcareous and neutral grassland, improved agricultural grassland and conifer plantation; perched, k. male perched on hawthorn.	DM
K.093	VP4	04/12/2024	09:28	Kestrel	1	57	57	0	0	0	dry-humid acid grassland, improved agricultural grassland and conifer plantation; flying, k. male left perch flying east	DM
K.094	VP4	04/12/2024	11:32	Kestrel	1	198	35	40	123	0	dry-humid acid grassland and improved agricultural grassland; hunting, k. male hunting over fields.	DM
K.095	VP4	04/12/2024	12:48	Kestrel	1	240	0	20	220	0	improved agricultural grassland, dry-humid acid grassland and conifer plantation; hunting, k. male hunting into site.	DM
K.096	VP1	12/12/2024	10:58	Kestrel	1	40	0	40	0	0	improved agricultural grassland, hedgerows and buildings and artificial surfaces; flying north., passing through from the southwest.	JH
K.097	VP3	16/12/2024	10:35	Kestrel	1	10		10			improved agricultural grassland; flying north	SD
K.098	VP3	16/12/2024	16:04	Kestrel	1	40		40			improved agricultural grassland; flying south	SD
K.099	VP4	28/01/2025	15:43	Kestrel	1	15	15	0	0	0	improved agricultural grassland and dry calcareous and neutral grassland; low flight. hunting., male. lost view.	JH
K.100	VP4	28/01/2025	16:46	Kestrel	1	5	5	0	0	0	conifer plantation, cutover bog and scrub; perched on tree for about 6 minutes before entering conifer plantation, first observed on spruce tree along boundary of woodland, into which after 6 minutes it entered.	JH
K.101	VP2	29/01/2025	12:35	Kestrel	1	10	0	10	0	0	improved agricultural grassland; flying east., lost view behind hillside.	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.102	VP2	29/01/2025	00:43	Kestrel	1	15	15	0	0	0	conifer plantation, improved agricultural grassland and scrub; slow commute between two sections of woodland., observed in opening, possibly hunting.	JH
K.103	VP4	19/02/2025	11:49	Kestrel	1	45	45	0	0	0	improved agricultural grassland, conifer plantation and scrub; hovering, then low flight. hunting all the time., dropped into cover and lost from view.	JH
K.104	VP4	19/02/2025	12:10	Kestrel	1	220	180	20	20	0	dry calcareous and neutral grassland, conifer plantation and scrub; hunting. series of short flights with regular hovering., went to ground on two occasions.	JH
K.105	VP4	19/02/2025	12:55	Kestrel	1	40	25	15	0	0	dry calcareous and neutral grassland and wet grassland; hunting. hovering on two occasions, lost from view when it went to ground.	JH
K.106	VP1	26/02/2025	08:10	Kestrel	1	45	5	10	30	0	improved agricultural grassland; flying east	SD
K.107	VP4	23/03/2025	15:47	Kestrel	1	30	10	20	0	0	dry-humid acid grassland, conifer plantation and scrub; flew north over conifer plantation, dropped into opening in forest, lost view.	JH
K.108	VP3	24/03/2025	12:15	Kestrel	1	20	5	15	0	0	improved agricultural grassland; hunting then landing in rushes	SD
K.109	VP3	24/03/2025	12:20	Kestrel	1	240	0	0	240	0	conifer plantation; hunting flying north	SD
K.111	VP2	30/03/2025	14:34	Kestrel	1	60	0	60	0	0	conifer plantation, wet grassland and improved agricultural grassland; flying west., dropped into forestry plantation.	JH

Table 7 - 4 - 12 Kestrel, breeding walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
K.001	17/07/2023	14:59	Kestrel	1	improved agricultural grassland; hunting (pair; probable breeding)	SD
K.003	20/07/2024	12:54	Kestrel	1	improved agricultural grassland; hunting, female hunting over improved agricultural grassland (suitable nesting habitat; possible breeder)	DM
K.004	20/07/2024	13:03	Kestrel	1	improved agricultural grassland and conifer plantation; hunting, female hunting over improved agricultural grassland (suitable nesting habitat; possible breeder)	DM

Table 7 - 4 - 13 Kestrel, breeding raptor survey data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.001	BR2	24/04/2023	10:34	Kestrel	1	upland blanket bog, hunting, mobbed, being attacked by meadow pipit	suitable nesting habitat; possible breeder	SD
K.002	BR3	24/04/2023	15:43	Kestrel	1	upland blanket bog, hunting, hunting along bog	suitable nesting habitat; possible breeder	SD
K.003	BR3	29/04/2023	11:37	Kestrel	1	upland blanket bog, conifer plantation and exposed sand, gravel or till, hunting, commuting, hunting over existing quarry northeast of rvp3. male bird. flying at 20metres, in view for 15 seconds	singing male; possible breeder	JH
K.004	BR2	22/05/2023	12:56	Kestrel	1	conifer plantation and lowland blanket bog, hunting, spotted hovering over spruce plantation. Very clear view of activity.	singing male; possible breeder	JH
K.005	BR2	23/05/2023	14:20	Kestrel	1	upland blanket bog, hunting	agitated behaviour; probable breeding	SD
K.006	BR2	28/05/2023	10:27	Kestrel	1	conifer plantation and lowland blanket bog, flying, short flight north along boundary of forest plantation. seen here on previous visit. 22/05/23	singing male; possible breeder	JH
K.007	BR2	28/05/2023	10:58	Kestrel	1	conifer plantation, lowland blanket bog and lowland blanket bog, flying, flight northwards, just over canopy of forest, dropped into opening in plantation. view lost when it went to ground.	singing male; possible breeder	JH
K.008	BR2	28/05/2023	11:16	Kestrel	1	conifer plantation, hunting, observed hovering at this location for about 60 sec. following period hovering flew 100m south into forest.	singing male; possible breeder	JH
K.009	BR2	28/06/2023	09:52	Kestrel	1	upland blanket bog, conifer plantation and scrub, hunting along boundary of plantation. male, recorded on a number of occasions at this locations.	permanent territory; probable breeding	JH
K.010	BR2	17/07/2023	12:52	Kestrel	1	conifer plantation, upland blanket bog and scrub, flying along boundary of conifer plantation. male bird, seen for short time., recorded here on a few occasions.	suitable nesting habitat; possible breeder	JH
K.011	BR 1	19/07/2023	09:30	Kestrel	1	dry-humid acid grassland and conifer plantation, hunting	pair; probable breeding	SD
K.012	BR2	24/07/2023	11:05	Kestrel	1	conifer plantation, upland blanket bog and scrub, flying over wd4, going to ground at openings in canopy. hunting woodland boundary. female., kestrel observed here on a few occasions.	fledged young; confirmed breeding	JH
K.013	BR 1	03/04/2024	15:03	Kestrel	1	lowland blanket bog, improved agricultural grassland and conifer plantation, hunting, kestrel female, hunting over boggy ground for about 2 minutes; continued east.	suitable nesting habitat; possible breeder	DM
K.015	BR2	26/05/2024	13:48	Kestrel	1	conifer plantation, lowland blanket bog and wet grassland, flying along boundary of conifer plantation., noted in this area also last year.	suitable nesting habitat; possible breeder	JH
K.016	BR2	26/05/2024	14:46	Kestrel	1	conifer plantation, lowland blanket bog and recently felled woodland, flying in clear felled conifer plantation., short sighting. dipped into mature trees, lost view.	suitable nesting habitat; possible breeder	JH

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.017	BR2	20/06/2024	13:24	Kestrel	1	upland blanket bog, conifer plantation and cutover bog, hovering over bog at first, then flew into conifer plantation., kestrel recorded from this VP most visits.	suitable nesting habitat; possible breeder	JH
K.018	BR2	20/06/2024	13:28	Kestrel	1	upland blanket bog, conifer plantation and cutover bog, re-emerged and hovered for 50 sec., then went to ground. not recorded again., normally seen a little further west. no further record of kestrels for remainder of visit.	suitable nesting habitat; possible breeder	JH
K.019	BR2	28/06/2024	10:52	Kestrel	1	upland blanket bog, conifer plantation and dry-humid acid grassland, hovering, flying, landed, spotted at first in flight. she then hovered for about 1 min before going to ground and taking prey. she then flew into conifer plantation 0.5 km away. common sight this year and last year at this location.	adult carrying food/faecal sac; confirmed breeding	JH
K.020	BR2	28/06/2024	11:22	Kestrel	1	upland blanket bog, conifer plantation and dry-humid acid grassland, flying across open blanket bog., slow flight, possibly hunting. lost view after 25 sec.	singing male; possible breeder	JH
K.023	BR3	12/07/2024	12:47	Kestrel	1	raised bog, hunting east very high 120m	singing male; possible breeder	SD
K.024	BR3	12/07/2024	13:27	Kestrel	1	raised bog, flying north then perched then continued flying north	singing male; possible breeder	SD
K.027	BR2	27/07/2024	11:34	Kestrel	1	raised bog, hunting, one male kestrel hunting at br2 then flying west	suitable nesting habitat; possible breeder	SD
K.028	BR2	27/07/2024	12:21	Kestrel	1	raised bog, hunting, one female hunting at br2 then flying east	suitable nesting habitat; possible breeder	SD
K.030	BR2	28/07/2024	07:47	Kestrel	1	conifer plantation and dry-humid acid grassland, flying, then perched on tree. flew into forest., observed on all my visits here.	suitable nesting habitat; possible breeder	JH
K.031	BR2	28/07/2024	09:32	Kestrel	1	lowland blanket bog and conifer plantation, hovering for 25 seconds, then to ground and later flew away south., same bird as for 07:47 above hunting.	suitable nesting habitat; possible breeder	JH
K.032	BR2	28/07/2024	09:42	Kestrel	1	lowland blanket bog and conifer plantation, hovering at different locations., hunting in same area as for 09:32	suitable nesting habitat; possible breeder	JH
K.033	BR2	28/07/2024	10:07	Kestrel	1	lowland blanket bog and conifer plantation, hovering, hunting, continued to hunt same area, this time took prey.	suitable nesting habitat; possible breeder	JH
K.036	BR2	11/07/2024	15:47	Kestrel	1	cutover bog, upland blanket bog and conifer plantation, soaring, male soaring on updraft then flying over conifer plantation into wind.	pair; probable breeding	DM
K.037	BR2	11/07/2024	17:59	Kestrel	1	upland blanket bog, cutover bog and conifer plantation, hunting, female hunting over bog, stooped on prey once but did not rise with prey. missing central tail feather. continued hunting over bog plots after stoop.	pair; probable breeding	DM

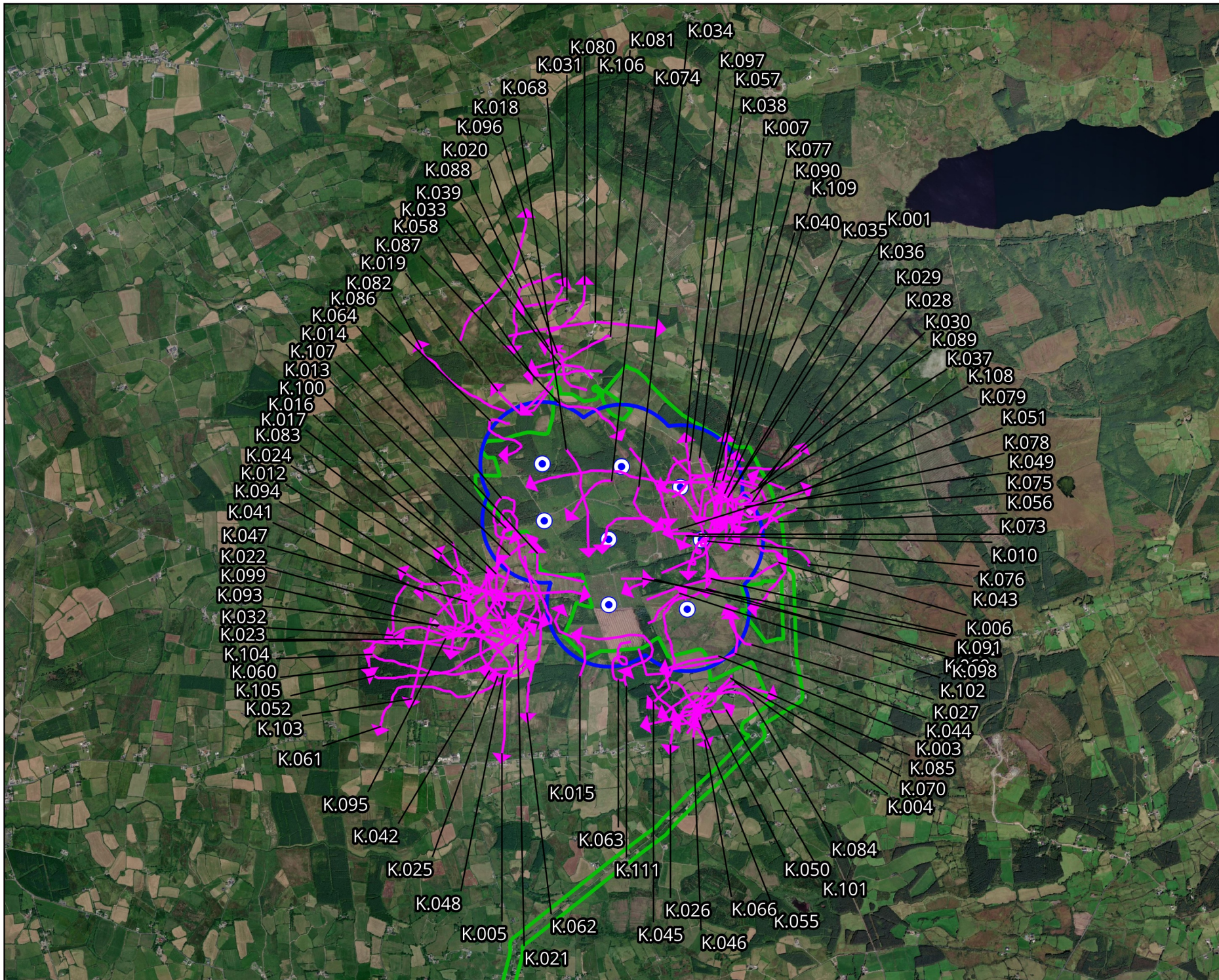
Table 7 - 4 - 14 Kestrel, winter walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
K.001	24/02/2024	13:49	Kestrel	1	improved agricultural grassland, lowland blanket bog and conifer plantation; hunting, male hunting	DM
K.002	15/03/2024	13:27	Kestrel	1	cutover bog, conifer plantation and improved agricultural grassland; hunting, k. male hunting over bog for ca. 1 min.	DM
K.003	03/10/2024	12:49	Kestrel	1	improved agricultural grassland and conifer plantation; hunting, female hunting, left to east.	DM
K.004	07/02/2025	12:37	Kestrel	1	conifer plantation; flying, k. male flying north, left perch in wd4.	DM

Table 7 - 4 - 15 Kestrel, incidental observations data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.001	Hen Harrier Roost Survey; HHVP 2	27/10/2023	18:15	Kestrel	1	lowland blanket bog; commuting, adult male	SD
K.002	Hen Harrier Roost Survey; HHVP 1	28/10/2023	17:00	Kestrel	1	improved agricultural grassland and lowland blanket bog; hunting, flying then perched on pylon, then flew southwest, adult female	SD
K.003	Hen Harrier Roost Survey; HHVP 4	10/11/2023	13:35	Kestrel	1	improved agricultural grassland, conifer plantation and lowland blanket bog; hunting, feeding, male got up with rodent prey and fed on it on roadside embankment.	DM
K.004	Hen Harrier Roost Survey; HHVP 6	15/12/2023	15:08	Kestrel	1	conifer plantation and improved agricultural grassland; hunting, female popped up, hovered, went east	DM
K.005	Hen Harrier Roost Survey; HHVP 6	15/12/2023	15:43	Kestrel	1	conifer plantation and improved agricultural grassland; hunting, female hunting again	DM
K.006	Hen Harrier Roost Survey; HHVP 6	15/12/2023	16:07	Kestrel	1	conifer plantation and improved agricultural grassland; hunting, female hunting again	DM
K.007	Hen Harrier Roost Survey; HHVP 4	13/02/2024	15:52	Kestrel	1	improved agricultural grassland, lowland blanket bog and conifer plantation; flying, perched, male flew by and perched on ESB poll.	DM
K.008	Hen Harrier Roost Survey; HHVP 3c	29/02/2024	16:11	Kestrel	2	conifer plantation, cutover bog and improved agricultural grassland; hunting, hunting by trees, left north	DM
K.009	Hen Harrier Roost Survey; HHVP 4	19/03/2024	16:45	Kestrel	1	conifer plantation, improved agricultural grassland and lowland blanket bog; perched, kestrel male perched for about 30 min.	DM
K.010	Hen Harrier Roost Survey; HHVP 4	19/03/2024	17:38	Kestrel	1	conifer plantation, improved agricultural grassland and lowland blanket bog; commuting, kestrel. male commuted east	DM
K.011	Hen Harrier Roost Survey; HHVP 2	30/03/2024	16:42	Kestrel	1	lowland blanket bog, conifer plantation and improved agricultural grassland; hunting, kestrel male hunting along boggy ground.	DM
K.012	Hen Harrier Roost Survey; HHVP 2	08/10/2024	19:04	Kestrel	1	buildings and artificial surfaces; perched, female perched on power lines above house.	DM
K.013	Hen Harrier Roost Survey; HHVP 3	04/11/2024	16:59	Kestrel	1	improved agricultural grassland and conifer plantation; hunting, female hunting behind vantage point.	DM
K.014	Hen Harrier Roost Survey; HHVP 3	04/11/2024	17:12	Kestrel	1	improved agricultural grassland and cutover bog; hunting, female hunting over bog.	DM

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.015	Hen Harrier Roost Survey; HHVP 2	08/11/2024	16:55	Kestrel	1	improved agricultural grassland; flying east, 25 metres for 40 seconds	SD
K.016	Hen Harrier Roost Survey; HHVP 5	29/11/2024	15:33	Kestrel	1	conifer plantation and improved agricultural grassland; flying, male flying west into site	DM
K.017	Hen Harrier Roost Survey; HHVP 3	05/12/2024	15:55	Kestrel	1	raised bog; flying west	SD
K.018	Hen Harrier Roost Survey; HHVP 4	15/12/2024	15:24	Kestrel	1	cutover bog and dry-humid acid grassland; hunting, k. hunting over bog.	DM
K.019	Hen Harrier Roost Survey; HHVP 4	30/01/2025	16:55	Kestrel	1	improved agricultural grassland and cutover bog; hunting, k. male hunting over fields.	DM



Map Legend

- EIAR Site Boundary
- Proposed Turbine Layout
- 500m Buffer of Proposed Turbine Layout
- Flightline
- ◆ Observation



Drawing Title
**Kestrel Observations
 Vantage Point Surveys**

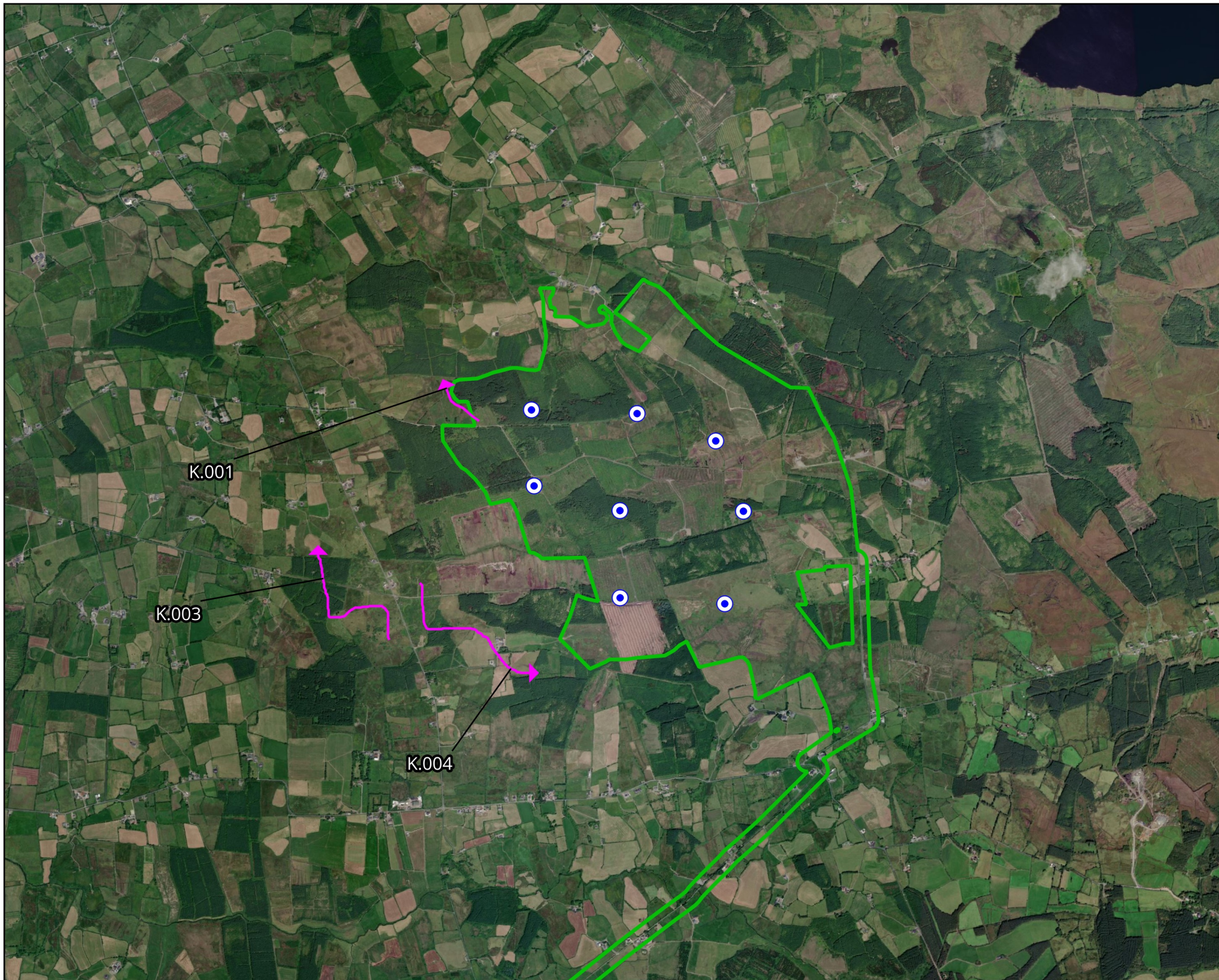
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 Renewable Energy Development**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-11
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Scale 1:40,000	Date 04.09.25
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Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title
**Kestrel Observations
 Breeding Walkover Surveys**

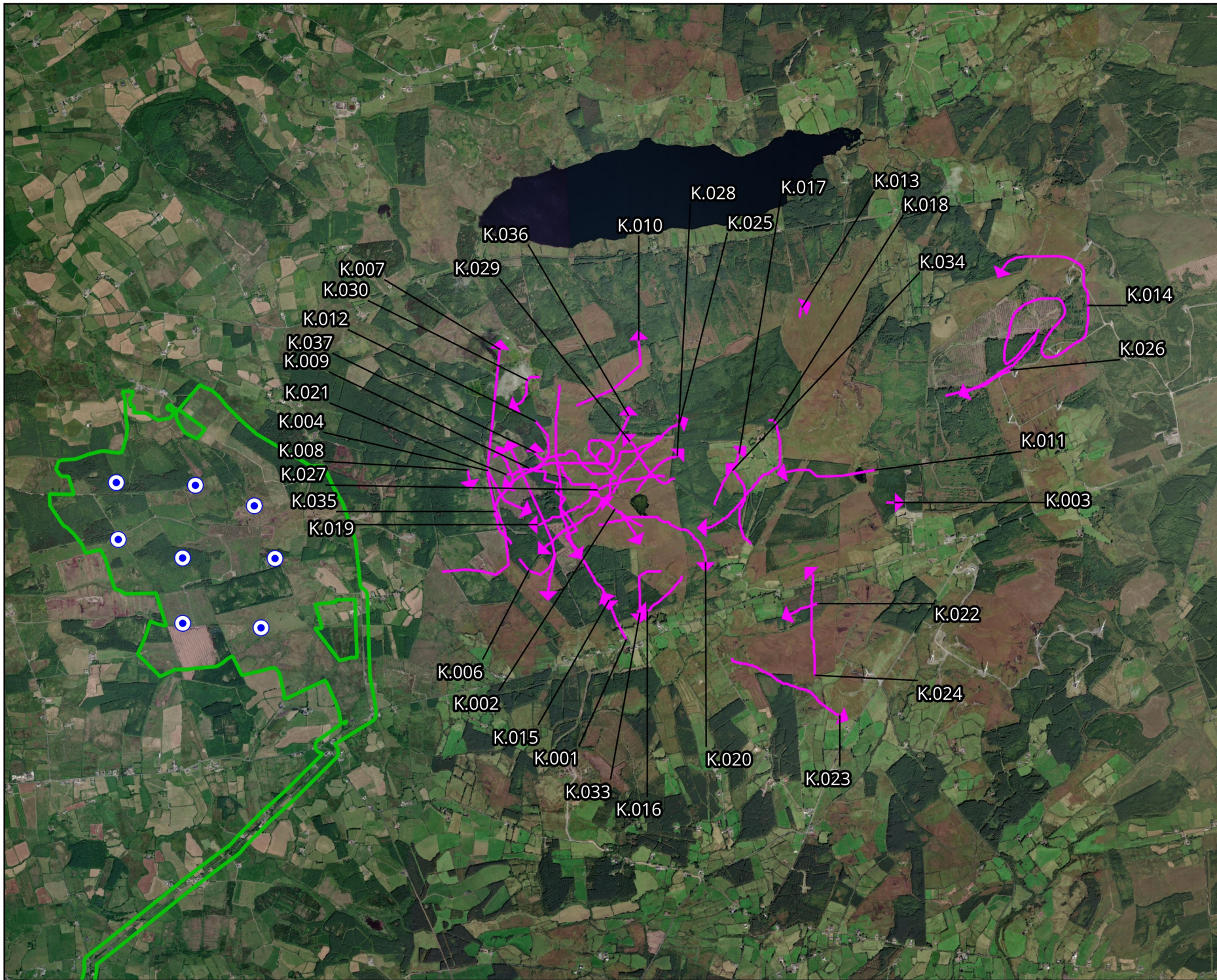
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 West Wind Farm**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-12
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Scale 1:30,000	Date 04.09.25
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Map Legend

- EIA Site Boundary
- ⊙ Proposed Turbine Layout
- Flightline



Drawing Title
**Kestrel Observations
 Breeding Raptor Surveys**

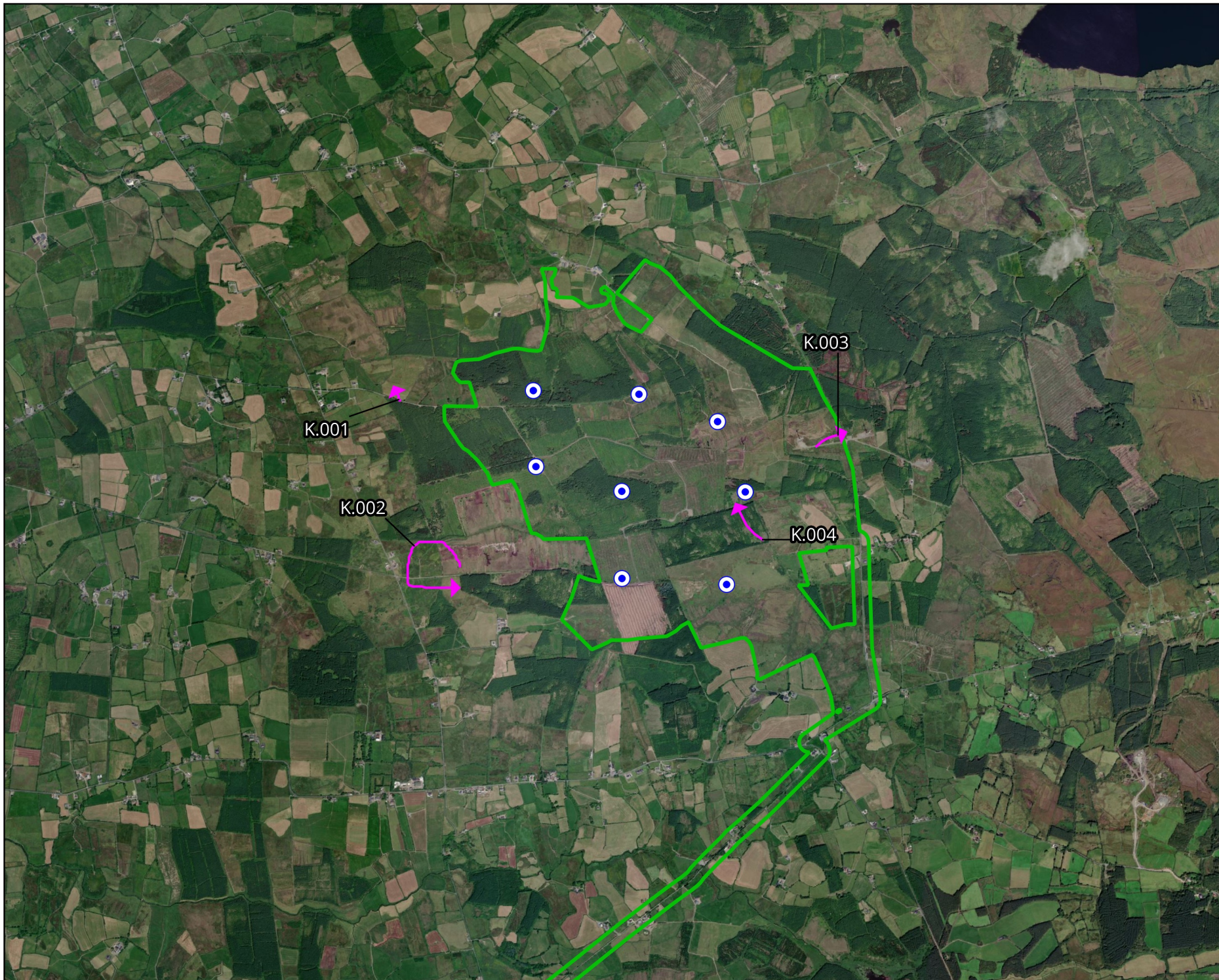
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 West Wind Farm**

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Project No. 230403	Drawing No. Fig 7-4-13
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Scale 1:40,000	Date 04.09.25
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Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title
**Kestrel Observations
 Winter Walkover Survey**

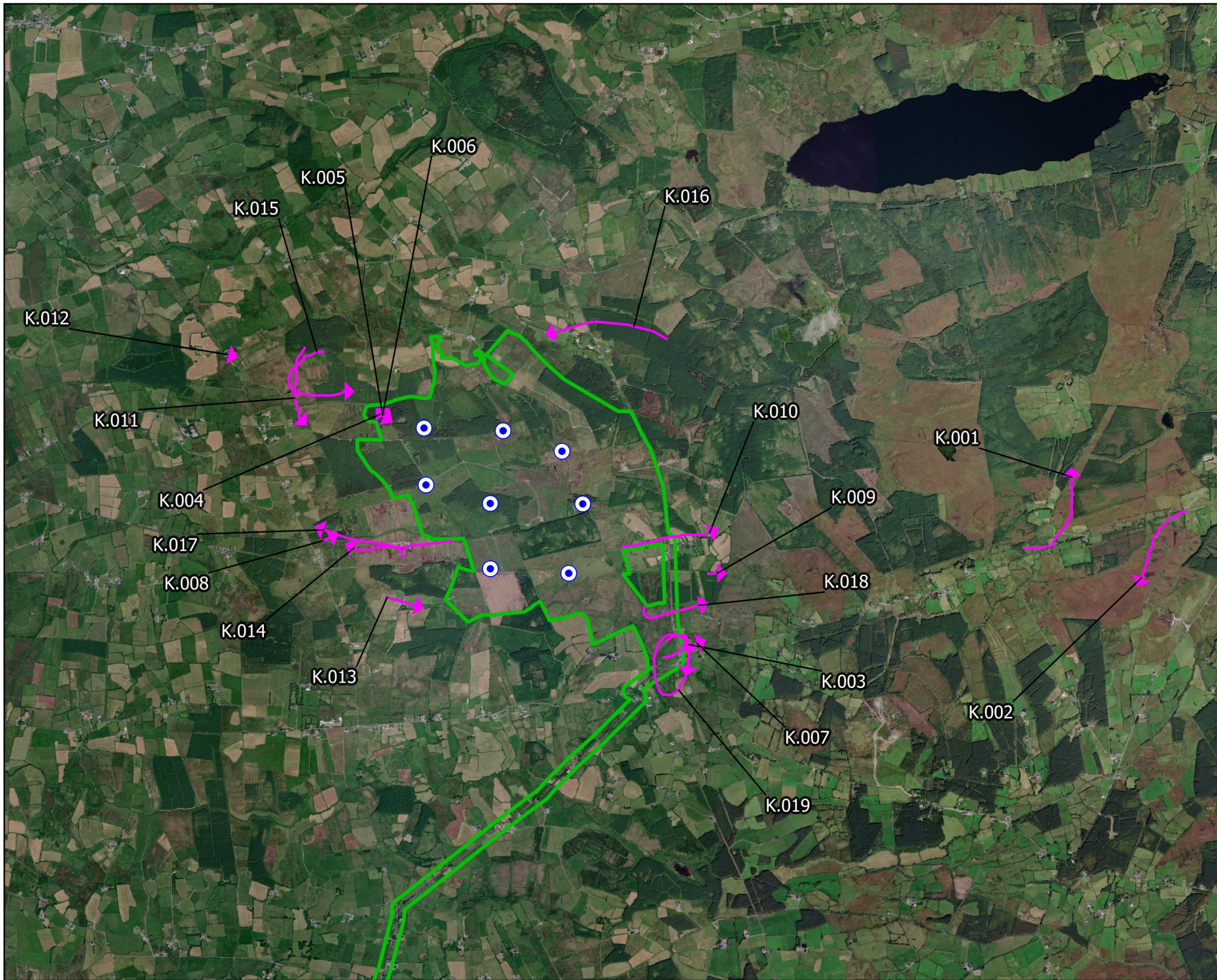
Project Title
**Proposed Cahermurphy
 West Wind Farm**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-14
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Scale 1:30,000	Date 04.09.25
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Map Legend

- EIAR Site Boundary
- Proposed Turbine Layout
- ↗ Flightline



Drawing Title	
Kestrel Incidental Observations	
Project Title	
Proposed Cahermurphy West Wind Farm	
Drawn By	Checked By
CC	PM
Project No.	Drawing No.
230403	Fig 7-4-15
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8.

MEADOW PIPIT

Table 7 - 4 - 16 Meadow pipit, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
MP001	VP3	20/04/2023	12:53	Meadow Pipit	1	-	-	-	-	-	upland blanket bog; foraging	SD
MP002	VP3	20/04/2023	13:40	Meadow Pipit	1	-	-	-	-	-	upland blanket bog; foraging	SD
MP003	VP3	20/04/2023	16:22	Meadow Pipit	2	-	-	-	-	-	upland blanket bog; foraging	SD
MP004	VP4	21/04/2023	10:05	Meadow Pipit	1	-	-	-	-	-	present	DM
MP005	VP1	23/04/2023	-	Meadow Pipit	1	-	-	-	-	-	improved grassland; flitting, moved from non-targets	JH
MP006	VP1	19/05/2023	-	Meadow Pipit	1	-	-	-	-	-	improved grassland; foraging, good numbers.	JH
MP007	VP4	20/05/2023	-	Meadow Pipit	1	-	-	-	-	-	present	SD
MP008	VP3	28/05/2023	12:05	Meadow Pipit	5	-	-	-	-	-	improved agricultural grassland and conifer plantation; displaying, displaying in area surrounding vp3	DM
MP009	VP2	31/05/2023	-	Meadow Pipit	1	-	-	-	-	-	improved grassland; foraging, good population	JH
MP010	VP1	08/06/2023	07:12	Meadow Pipit	1	-	-	-	-	-	dry calcareous and neutral grassland; foraging, good numbers, around VP	JH
MP011	VP4	13/06/2023	07:45	Meadow Pipit	1	-	-	-	-	-	dry calcareous and neutral grassland; foraging, plentiful over rushy field and meadows	JH
MP012	VP3	24/06/2023	15:40	Meadow Pipit	2	-	-	-	-	-	dry-humid acid grassland, conifer plantation and improved agricultural grassland; displaying, displaying in area surrounding VP3	DM
MP013	VP3	24/06/2023	19:10	Meadow Pipit	2	-	-	-	-	-	dry-humid acid grassland, conifer plantation and improved agricultural grassland; displaying, displaying in area surrounding VP3	DM
MP014	VP3	19/07/2023	-	Meadow Pipit	8	-	-	-	-	-	present	JH
MP015	VP4	27/07/2023	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP016	VP2	31/07/2023	12:22	Meadow Pipit	4	-	-	-	-	-	improved agricultural grassland, lowland blanket bog and cutover bog; foraging, foraging around VP.	DM

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
MP017	VP4	26/08/2023	17:12	Meadow Pipit	10	-	-	-	-	-	cutover bog, lowland blanket bog and conifer plantation; mobbing, mobbing female kestrel	DM
MP018	VP2	31/08/2023	08:23	Meadow Pipit	25	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging, flock foraging around VP	DM
MP019	VP2	17/09/2023	11:35	Meadow Pipit	1	15	0	15	0	0	improved agricultural grassland; flying	SD
MP020	VP3	22/09/2023	08:10	Meadow Pipit	5	-	-	-	-	-	improved agricultural grassland, cutover bog and conifer plantation; foraging, active around vantage point	DM
MP021	VP3	22/09/2023	11:30	Meadow Pipit	5	-	-	-	-	-	improved agricultural grassland, cutover bog and conifer plantation; foraging, active around vantage point	DM
MP022	VP1	24/09/2023	07:03	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, foraging in fields around site.	DM
MP023	VP1	24/09/2023	10:15	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, foraging in fields around site.	DM
MP024	VP4	25/09/2023	07:05	Meadow Pipit	8	-	-	-	-	-	improved agricultural grassland, cutover bog and conifer plantation; foraging, active around site.	DM
MP025	VP4	25/09/2023	10:30	Meadow Pipit	40	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, active around site.	DM
MP026	VP1	25/09/2023	14:15	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, foraging in fields around site.	DM
MP027	VP3	13/10/2023	09:47	Meadow Pipit	7	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging, foraging around VP	DM
MP028	VP3	13/10/2023	13:30	Meadow Pipit	6	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging, foraging around VP	DM
MP029	VP4	17/10/2023	10:05	Meadow Pipit	2	10	10	0	0	0	improved agricultural grassland; flying	SD
MP030	VP1	25/10/2023	10:20	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, foraging around VP.	DM

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
MP031	VP1	25/10/2023	11:48	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and conifer plantation; foraging, foraging around VP.	DM
MP032	VP2	28/10/2023	-	Meadow Pipit	8	-	-	-	-	-	present	JH
MP033	VP3	11/11/2023	11:01	Meadow Pipit	2	20	10	10	0	0	improved agricultural grassland; flying east	SD
MP034	VP3	11/11/2023	11:56	Meadow Pipit	1	15	15	0	0	0	lowland blanket bog; flying south	SD
MP035	VP4	17/11/2023	10:35	Meadow Pipit	7	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging	DM
MP036	VP1	22/11/2023	-	Meadow Pipit	7	-	-	-	-	-		JH
MP037	VP2	24/11/2023	11:12	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging	DM
MP038	VP2	24/11/2023	14:58	Meadow Pipit	21	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; flying, flock of meadow pipits flew through	DM
MP039	VP3	07/12/2023	09:45	Meadow Pipit	30	-	-	-	-	-	present	DM
MP040	VP3	07/12/2023	11:55	Meadow Pipit	8	-	-	-	-	-	present	DM
MP041	VP4	13/12/2023	08:45	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging	DM
MP042	VP4	13/12/2023	12:40	Meadow Pipit	4	-	-	-	-	-	improved agricultural grassland, conifer plantation and cutover bog; foraging, perched	DM
MP043	VP1	17/12/2023	09:37	Meadow Pipit	1	15	15	0	0	0	improved agricultural grassland; flying	SD
MP044	VP2	19/12/2023	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP045	VP3	12/01/2024	-	Meadow Pipit	1	-	-	-	-	-	improved grassland; flitting, moved from non-targets, good numbers	JH
MP046	VP2	25/01/2024	12:20	Meadow Pipit	23	-	-	-	-	-	improved agricultural grassland and conifer plantation; commuting, flock commuted past VP.	DM
MP047	VP4	02/02/2024	08:19	Meadow Pipit	18	-	-	-	-	-	improved agricultural grassland, cutover bog and conifer plantation; flying, flock flying through, 3 or 4 birds active around VP occasionally during watch.	DM
MP048	VP4	02/02/2024	13:26	Meadow Pipit	12	-	-	-	-	-	cutover bog, improved agricultural grassland and conifer plantation; foraging, flying	DM

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
MP049	VP4	02/02/2024	14:30	Meadow Pipit	48	-	-	-	-	-	improved agricultural grassland and conifer plantation; flying, flock flying north.	DM
MP050	VP1	05/02/2024	08:55	Meadow Pipit	1	10	10	0	0	0	improved agricultural grassland; flying west	SD
MP051	VP3	15/02/2024	-	Meadow Pipit	7	-	-	-	-	-	present	JH
MP052	VP3	20/03/2024	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP053	VP1	23/03/2024	13:40	Meadow Pipit	2	-	-	-	-	-	improved agricultural grassland and conifer plantation; displaying, displaying over improved agricultural grassland	DM
MP054	VP4	29/03/2024	13:42	Meadow Pipit	4	-	-	-	-	-	improved agricultural grassland and conifer plantation; displaying/territorial, meadow pipits displaying and in territorial dispute. up to 4 total.	DM
MP055	VP3	01/04/2024	08:15	Meadow Pipit	6	-	-	-	-	-	present	SD
MP056	VP4	09/04/2024	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP057	VP2	19/04/2024	09:25	Meadow Pipit	2	-	-	-	-	-	improved agricultural grassland and cutover bog; displaying, meadow pipit displaying.	DM
MP058	VP3	04/05/2024	16:10	Meadow Pipit	3	-	-	-	-	-	dry-humid acid grassland, improved agricultural grassland and conifer plantation; displaying	DM
MP059	VP3	04/05/2024	18:30	Meadow Pipit	6	-	-	-	-	-	dry-humid acid grassland, improved agricultural grassland and conifer plantation; foraging, displaying, 3 meadow pipits' pairs active around VP. occasionally 1 bird displaying.	DM
MP060	VP4	19/05/2024	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP061	VP1	21/05/2024	15:40	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland; displaying, meadow pipit displaying	DM
MP062	VP1	21/05/2024	19:30	Meadow Pipit	2	-	-	-	-	-	improved agricultural grassland; displaying, meadow pipits displaying	DM
MP063	VP2	28/05/2024	15:30	Meadow Pipit	2	-	-	-	-	-	improved agricultural grassland; displaying, at VP	SD
MP064	VP4	08/06/2024	08:15	Meadow Pipit	2	-	-	-	-	-	raised bog; displaying, two adult meadow pipits displaying all day.	SD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
MP065	VP3	10/06/2024	13:30	Meadow Pipit	8	-	-	-	-	-	dry-humid acid grassland and improved agricultural grassland; displaying, flying, 4 pairs of meadow pipits active around VP.	DM
MP066	VP3	14/07/2024	08:15	Meadow Pipit	4	-	-	-	-	-	raised bog; calling	SD
MP067	VP4	21/07/2024	-	Meadow Pipit	1	-	-	-	-	-	semi-natural grassland; feeding on wild vegetation, moved from non-targets	JH
MP068	VP4	19/09/2024	-	Meadow Pipit	1	-	-	-	-	-	present	JH
MP069	VP1	22/10/2024	12:10	Meadow Pipit	6	200	200	0	0	0	wet grassland and hedgerows; feeding, short flights within feeding area, additional note from non-target tab: wet rushy field	JH
MP070	VP3	28/10/2024	09:55	Meadow Pipit	2	80	70	10	0	0	recolonising bare ground, scrub and eroding blanket bog; flying and feeding close to vantage point, feeding on vegetation growing over ground cleared in the past	JH
MP071	VP3	05/11/2024	09:07	Meadow Pipit	2	10	10	0	0	0	wet grassland; flying around chasing one another	SD
MP072	VP2	26/11/2024	11:45	Meadow Pipit	5	300	300	0	0	0	improved agricultural grassland; short flights, feeding., remained in general area.	JH
MP073	VP4	04/12/2024	08:10	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland and dry-humid acid grassland; active, mp3 active around VP	DM
MP074	VP1	12/12/2024	09:27	Meadow Pipit	4	90	70	20	0	0	improved agricultural grassland, wet grassland and hedgerows; feeding, short flights., went north, across road and out of view.	JH
MP075	VP3	16/12/2024	11:12	Meadow Pipit	2	25	25				improved agricultural grassland; flying west	SD
MP076	VP2	27/12/2024	08:26	Meadow Pipit	4	40	30	10	0	0	improved agricultural grassland, wet grassland and hedgerows; feeding, short flights., close to vantage point location.	JH
MP077	VP3	03/01/2025	09:01	Meadow Pipit	3	20	20	0	0	0	improved agricultural grassland; flying	SD
MP078	VP1	20/01/2025	12:57	Meadow Pipit	1	30	30	0	0	0	wet grassland, improved agricultural grassland and hedgerows; flew into wet grassland, short flight within site., remained feeding	JH
MP079	VP1	20/01/2025	13:07	Meadow Pipit	6	40	30	10	0	0	improved agricultural grassland, wet grassland and scrub; arrived from the	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											north, flew about and went on to feed on grassland., feeding on improved grassland. modified.	
MP080	VP4	28/01/2025	11:47	Meadow Pipit	7	20	20	0	0	0	improved agricultural grassland, dry calcareous and neutral grassland and scrub; short low flights over grassland., went to ground, feeding site out of view.	JH
MP081	VP4	19/02/2025	08:14	Meadow Pipit	6	15	15	0	0	0	wet grassland and hedgerows; feeding, short flights, common throughout the survey	JH
MP082	VP2	23/02/2025	08:37	Meadow Pipit	1	10	10	0	0	0	improved agricultural grassland and stone walls and other stonework; short flight., moved into adjacent field.	JH
MP083	VP1	26/02/2025	10:05	Meadow Pipit	1	90	20	70	0	0	improved agricultural grassland; displaying in front of VP	SD
MP084	VP1	19/03/2025	17:38	Meadow Pipit	3	15	15	0	0	0	improved agricultural grassland and wet grassland; flying, dropped into grassland and continued to feed.	JH
MP085	VP4	23/03/2025	13:06	Meadow Pipit	1	5	5	0	0	0	dry-humid acid grassland, scrub and conifer plantation; feeding	JH
MP086	VP3	24/03/2025	12:00	Meadow Pipit	3	-	-	-	-	-	improved agricultural grassland; circling around VP for 3 hrs	SD

Table 7 - 4 - 17 Meadow pipit, breeding walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP001	30/04/2023	12:48	Meadow Pipit	1	cutover bog, improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP002	30/04/2023	13:14	Meadow Pipit	1	cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP003	30/04/2023	14:21	Meadow Pipit	1	cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP004	30/04/2023	14:25	Meadow Pipit	2	cutover bog and conifer plantation; flushed, pair (pair; probable breeding)	DM
MP005	30/04/2023	14:57	Meadow Pipit	1	cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP006	30/04/2023	16:01	Meadow Pipit	1	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP007	30/04/2023	16:20	Meadow Pipit	1	improved agricultural grassland and conifer plantation; flushed off nest, meadow pipit nest 4e on rough improved grassland, flushed off nest. (occupied nest; confirmed breeding)	DM
MP008	30/04/2023	16:38	Meadow Pipit	1	cutover bog, improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP009	30/04/2023	16:41	Meadow Pipit	2	cutover bog, improved agricultural grassland and conifer plantation; flushed, pair (pair; probable breeding)	DM
MP010	30/04/2023	16:56	Meadow Pipit	1	improved agricultural grassland, cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP011	30/04/2023	17:14	Meadow Pipit	1	cutover bog, conifer plantation and improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP012	30/04/2023	17:19	Meadow Pipit	2	cutover bog, conifer plantation and improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP013	30/04/2023	17:32	Meadow Pipit	2	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP014	30/04/2023	18:05	Meadow Pipit	1	cutover bog, conifer plantation and improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP015	30/04/2023	18:22	Meadow Pipit	2	cutover bog, conifer plantation and improved agricultural grassland; flying, pair (pair; probable breeding)	DM
MP016	30/04/2023	18:27	Meadow Pipit	1	cutover bog, conifer plantation and improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP017	30/04/2023	18:37	Meadow Pipit	1	cutover bog, conifer plantation and improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP018	30/04/2023	18:38	Meadow Pipit	1	improved agricultural grassland, cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP019	30/05/2023	13:30	Meadow Pipit	2	improved agricultural grassland, conifer plantation and cutover bog; displaying (courtship and display; probable breeding)	DM
MP020	30/05/2023	14:00	Meadow Pipit	3	improved agricultural grassland, conifer plantation and cutover bog; displaying (courtship and display; probable breeding)	DM
MP021	30/05/2023	15:07	Meadow Pipit	3	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP022	30/05/2023	15:15	Meadow Pipit	2	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP023	30/05/2023	16:42	Meadow Pipit	2	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP024	23/06/2023	-	Meadow Pipit	3	upland blanket bog; calling (flyover; non-breeding)	SD
MP025	25/06/2023	16:56	Meadow Pipit	1	improved agricultural grassland and conifer plantation; perched (suitable nesting habitat; possible breeder)	DM
MP026	25/06/2023	16:58	Meadow Pipit	1	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP027	25/06/2023	17:12	Meadow Pipit	1	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP028	25/06/2023	17:15	Meadow Pipit	1	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP029	25/06/2023	18:23	Meadow Pipit	1	improved agricultural grassland, conifer plantation and cutover bog; displaying (courtship and display; probable breeding)	DM
MP030	25/06/2023	18:40	Meadow Pipit	1	improved agricultural grassland, conifer plantation and cutover bog; displaying (courtship and display; probable breeding)	DM
MP031	17/07/2023	16:18	Meadow Pipit	1	upland blanket bog; calling (pair; probable breeding)	SD
MP032	29/07/2023	18:10	Meadow Pipit	8	improved agricultural grassland, cutover bog and conifer plantation; foraging, flock foraging around improved agricultural grassland fields.	DM
MP033	09/04/2024	07:46	Meadow Pipit	2	improved agricultural grassland and conifer plantation; displaying, meadow pipit displaying over improved agricultural grassland (courtship and display; probable breeding)	DM
MP034	09/04/2024	09:15	Meadow Pipit	6	improved agricultural grassland and conifer plantation; flying, foraging, meadow pipit active over transect. (suitable nesting habitat; possible breeder)	DM
MP035	09/04/2024	11:32	Meadow Pipit	3	cutover bog, improved agricultural grassland and conifer plantation; flying, foraging, meadow pipit active over transect (suitable nesting habitat; possible breeder)	DM
MP036	09/04/2024	12:40	Meadow Pipit	4	improved agricultural grassland and conifer plantation; displaying, flying, 2 meadow pipit displaying and 2 meadow pipit active over transect. (courtship and display; probable breeding)	DM
MP037	09/04/2024	13:15	Meadow Pipit	3	conifer plantation, cutover bog and improved agricultural grassland; flying, foraging, meadow pipit active toward end of transect (suitable nesting habitat; possible breeder)	DM
MP038	18/04/2024	07:39	Meadow Pipit	2	improved agricultural grassland and conifer plantation; flying, pair (pair; probable breeding)	DM
MP039	18/04/2024	10:20	Meadow Pipit	1	cutover bog and conifer plantation; perched, meadow pipit perched in self-sown spruce beside cuckoo (suitable nesting habitat; possible breeder)	DM
MP040	18/04/2024	11:56	Meadow Pipit	3	cutover bog, improved agricultural grassland and conifer plantation; displaying, meadow pipit displaying males over transect (courtship and display; probable breeding)	DM
MP041	09/05/2024	08:41	Meadow Pipit	2	improved agricultural grassland and conifer plantation; perched, meadow pipit perched on power line (pair; probable breeding)	DM

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP042	09/05/2024	09:56	Meadow Pipit	3	improved agricultural grassland and conifer plantation; displaying, meadow pipit displaying males along transect (courtship and display; probable breeding)	DM
MP043	09/05/2024	11:16	Meadow Pipit	1	improved agricultural grassland and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP044	09/05/2024	12:28	Meadow Pipit	10	dry-humid acid grassland, conifer plantation and cutover bog; displaying, 5 pairs active with 3 displaying males over transect (pair; probable breeding)	DM
MP045	09/05/2024	13:55	Meadow Pipit	4	dry-humid acid grassland, conifer plantation and cutover bog; displaying, meadow pipit males displaying along transect. (courtship and display; probable breeding)	DM
MP046	10/05/2024	09:55	Meadow Pipit	3	cutover bog and conifer plantation; displaying (courtship and display; probable breeding)	DM
MP047	10/05/2024	12:58	Meadow Pipit	3	cutover bog, conifer plantation and improved agricultural grassland; displaying, meadow pipit displaying toward end of transect. (courtship and display; probable breeding)	DM
MP048	10/05/2024	13:36	Meadow Pipit	1	improved agricultural grassland; displaying (courtship and display; probable breeding)	DM
MP049	19/06/2024	08:52	Meadow Pipit	3	improved agricultural grassland; displaying, meadow pipits displaying along transect (courtship and display; probable breeding)	DM
MP050	19/06/2024	09:55	Meadow Pipit	8	improved agricultural grassland; displaying, meadow pipits males displaying along transect (courtship and display; probable breeding)	DM
MP051	19/06/2024	11:15	Meadow Pipit	9	dry-humid acid grassland, improved agricultural grassland and cutover bog; displaying, meadow pipits males displaying along transect (courtship and display; probable breeding)	DM
MP052	19/06/2024	12:40	Meadow Pipit	4	improved agricultural grassland; displaying, meadow pipits males displaying along transect (courtship and display; probable breeding)	DM
MP053	19/06/2024	13:15	Meadow Pipit	8	improved agricultural grassland and cutover bog; pairs active, meadow pipits active along transect (4 pairs) (pair; probable breeding)	DM
MP054	29/06/2024	12:11	Meadow Pipit	1	raised bog; displaying (suitable nesting habitat; possible breeder)	SD
MP055	29/06/2024	12:12	Meadow Pipit	1	raised bog and recently felled woodland; displaying (suitable nesting habitat; possible breeder)	SD
MP056	13/07/2024	08:09	Meadow Pipit	6	improved agricultural grassland; foraging, meadow pipits active along second half of transect (pair; probable breeding)	DM
MP057	13/07/2024	11:55	Meadow Pipit	6	lowland blanket bog, cutover bog and dry-humid acid grassland; foraging, meadow pipits active over transect. (suitable nesting habitat; possible breeder)	DM
MP058	13/07/2024	12:51	Meadow Pipit	8	improved agricultural grassland; flying, flock in flight (suitable nesting habitat; possible breeder)	DM
MP059	20/07/2024	13:17	Meadow Pipit	8	improved agricultural grassland and cutover bog; foraging, flying, meadow pipits active over transect (pair; probable breeding)	DM
MP060	25/04/2023	-	Meadow Pipit	5	present	SD
MP061	22/05/2023	-	Meadow Pipit	2	flight calling	SD
MP062	22/05/2023	-	Meadow Pipit	3	family flying together	SD
MP063	22/05/2023	-	Meadow Pipit	1	calling	SD

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP064	22/05/2023	-	Meadow Pipit	1	carrying material in its beak	SD
MP065	22/05/2023	-	Meadow Pipit	2	flying together	SD
MP066	22/05/2023	-	Meadow Pipit	3	mobbing sparrowhawk	SD
MP067	22/05/2023	-	Meadow Pipit	1	singing	SD
MP068	22/05/2023	-	Meadow Pipit	2	calling	SD

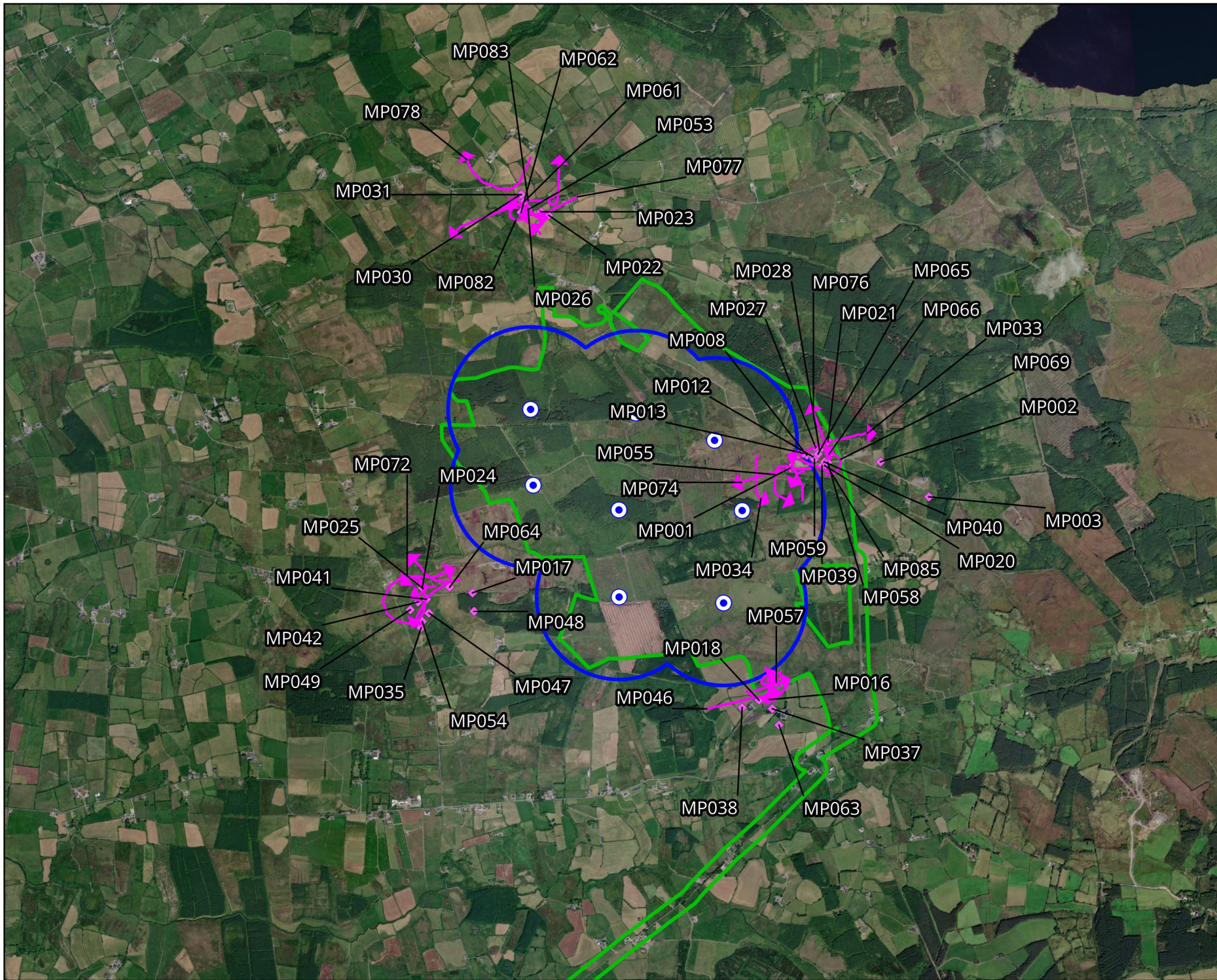
Table 7- 4- 18 Meadow pipit, winter walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP001	31/10/2023	09:08	Meadow Pipit	5	cutover bog, conifer plantation and improved agricultural grassland; foraging	DM
MP002	31/10/2023	10:50	Meadow Pipit	7	improved agricultural grassland, cutover bog and conifer plantation; foraging	DM
MP003	31/10/2023	12:05	Meadow Pipit	6	lowland blanket bog, improved agricultural grassland and cutover bog; foraging	DM
MP004	31/10/2023	12:57	Meadow Pipit	4	improved agricultural grassland, cutover bog and conifer plantation; foraging	DM
MP005	31/10/2023	13:31	Meadow Pipit	3	improved agricultural grassland, cutover bog and conifer plantation; foraging	DM
MP006	31/10/2023	14:42	Meadow Pipit	5	cutover bog, improved agricultural grassland and lowland blanket bog; foraging	DM
MP007	20/11/2023	08:51	Meadow Pipit	5	improved agricultural grassland and conifer plantation; foraging, foraging in field	DM
MP008	20/11/2023	11:58	Meadow Pipit	12	improved agricultural grassland and conifer plantation; foraging, foraging across transect 3	DM
MP009	24/02/2024	10:25	Meadow Pipit	4	improved agricultural grassland, cutover bog and conifer plantation; displaying, males.	DM
MP010	24/02/2024	11:36	Meadow Pipit	6	improved agricultural grassland, cutover bog and conifer plantation; displaying, males.	DM
MP011	24/02/2024	12:51	Meadow Pipit	5	improved agricultural grassland, conifer plantation and cutover bog; displaying, males.	DM
MP012	24/02/2024	14:35	Meadow Pipit	3	cutover bog, lowland blanket bog and conifer plantation; flying	DM
MP013	15/03/2024	09:58	Meadow Pipit	2	improved agricultural grassland and conifer plantation; displaying, meadow pipits displaying	DM
MP014	15/03/2024	10:55	Meadow Pipit	5	lowland blanket bog, improved agricultural grassland and conifer plantation; flying, meadow pipits active along transect	DM
MP015	15/03/2024	11:51	Meadow Pipit	6	improved agricultural grassland, cutover bog and conifer plantation; flying, displaying, meadow pipits active along transect w/meadow pipits displaying.	DM
MP016	15/03/2024	13:35	Meadow Pipit	4	cutover bog and conifer plantation; flying, displaying, mp4 active along transect, mp1 displaying.	DM
MP017	03/10/2024	07:53	Meadow Pipit	3	improved agricultural grassland; foraging, active over transect	DM
MP018	03/10/2024	08:55	Meadow Pipit	25	improved agricultural grassland; foraging, flock foraging at end of transect	DM
MP019	03/10/2024	10:12	Meadow Pipit	6	improved agricultural grassland; flying, active along transect	DM

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
MP020	03/10/2024	11:30	Meadow Pipit	9	improved agricultural grassland and lowland blanket bog; flying, active along transect	DM
MP021	03/10/2024	12:10	Meadow Pipit	12	cutover bog and lowland blanket bog; flying, active over transect	DM
MP022	03/10/2024	12:58	Meadow Pipit	6	dry-humid acid grassland and lowland blanket bog; flying, active	DM
MP023	03/10/2024	13:08	Meadow Pipit	7	cutover bog and improved agricultural grassland; flying, active	DM
MP024	07/11/2024	08:50	Meadow Pipit	4	cutover bog; flying, active along transect 2	DM
MP025	07/11/2024	10:08	Meadow Pipit	8	conifer plantation, improved agricultural grassland and dry-humid acid grassland; flying, active along transect 3	DM
MP026	07/11/2024	11:50	Meadow Pipit	12	dry-humid acid grassland and improved agricultural grassland; foraging, flock foraging in field	DM
MP027	07/11/2024	13:03	Meadow Pipit	17	dry-humid acid grassland and cutover bog; flying, active along transect 6	DM
MP028	07/02/2025	07:46	Meadow Pipit	1	improved agricultural grassland; calling	DM
MP029	07/02/2025	11:22	Meadow Pipit	1	dry-humid acid grassland; calling	DM
MP030	12/03/2025	10:35	Meadow Pipit	3	conifer plantation and dry-humid acid grassland; flying/calling, mp3 active on clear-fell	DM
MP031	12/03/2025	13:29	Meadow Pipit	4	cutover bog and dry-humid acid grassland; displaying/flying, mp1 displaying, mp3 active along transect.	DM

Table 7 - 4 - 19 Meadow pipit, incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
MP001	Vantage Point Survey; VP2	17/06/2023	09:11	Meadow Pipit	1	improved agricultural grassland; calling	SD
MP002	Hen Harrier Roost Survey; HHVP 3	30/10/2023	17:12	Meadow Pipit	6	cutover bog, conifer plantation and improved agricultural grassland; flying	DM
MP003	Hen Harrier Roost Survey; HHVP 3	25/11/2023	16:35	Meadow Pipit	33	lowland blanket bog; flying, flew northeast	SD
MP004	Hen Harrier Roost Survey; HHVP 5	12/12/2023	14:40	Meadow Pipit	12	improved agricultural grassland, conifer plantation and lowland blanket bog; flying, flock moving back and forth around fields.	DM
MP005	Breeding Raptor Survey; BR3	11/05/2024	17:30	Meadow Pipit	2	raised bog; calling	SD
MP006	Breeding Raptor Survey; BR2	26/06/2024	16:02	Meadow Pipit	1	raised bog; displaying	SD
MP007	Hen Harrier Roost Survey; HHVP 4	16/10/2024	16:45	Meadow Pipit	4	improved agricultural grassland and dry-humid acid grassland; perched, mp4 perched on power lines	DM
MP008	Hen Harrier Roost Survey; HHVP 5	29/11/2024	15:50	Meadow Pipit	2	improved agricultural grassland; flying, active	DM
MP009	Hen Harrier Roost Survey; HHVP 4	31/03/2025	19:10	Meadow Pipit	1	cutover bog; displaying, mp1 displaying	DM



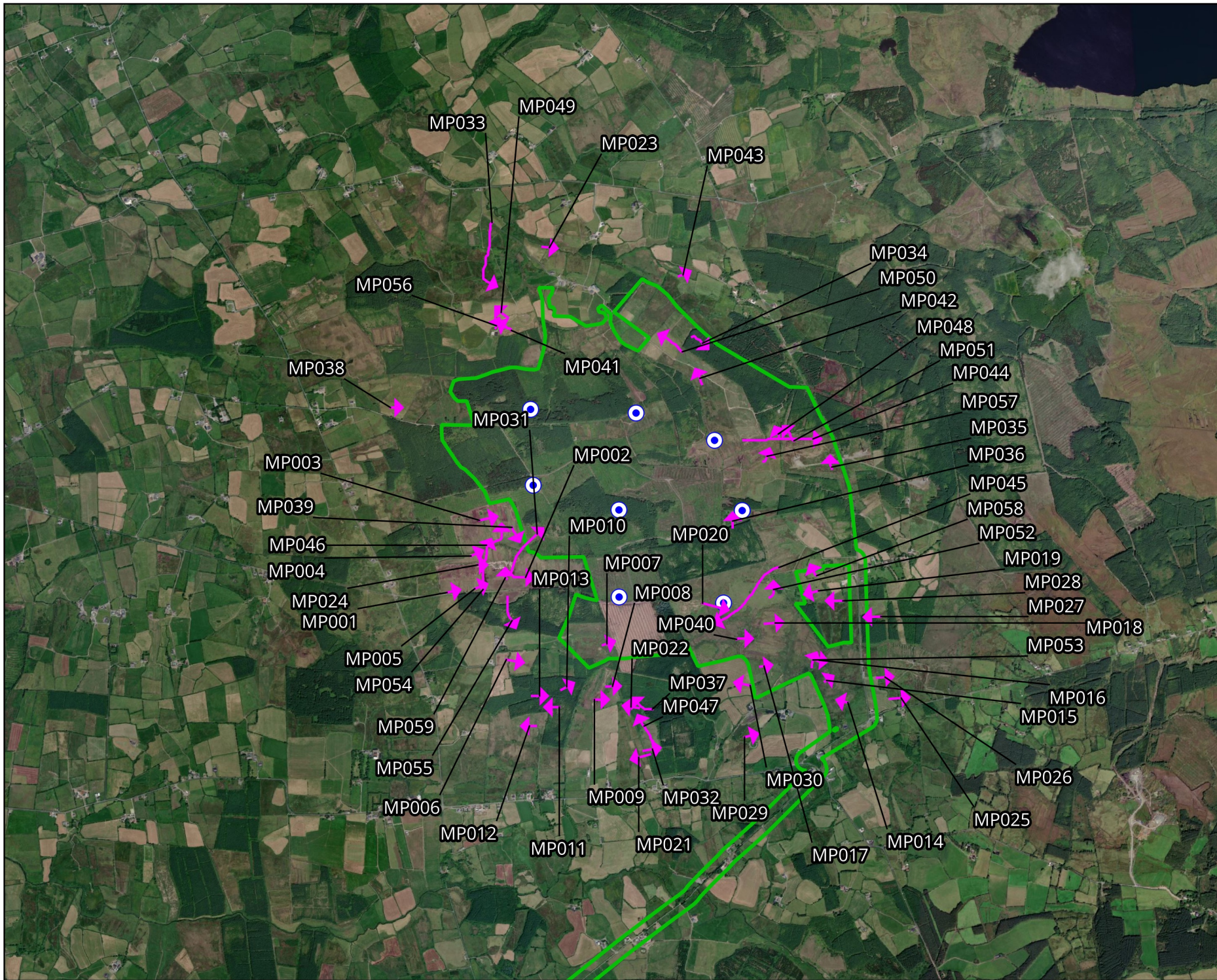
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- Proposed Turbine Layout
- 500m Buffer of Proposed Turbine Layout
- Flightline
- ◆ Observation



Drawing Title Meadow Pipit Observations Vantage Point Surveys	
Project Title Proposed Cahermurphy West Wind Farm	
Drawn By CC	Checked By PM
Project No. 230403	Drawing No. Fig 7-4-16
Scale 1:30,000	Date 04.09.25
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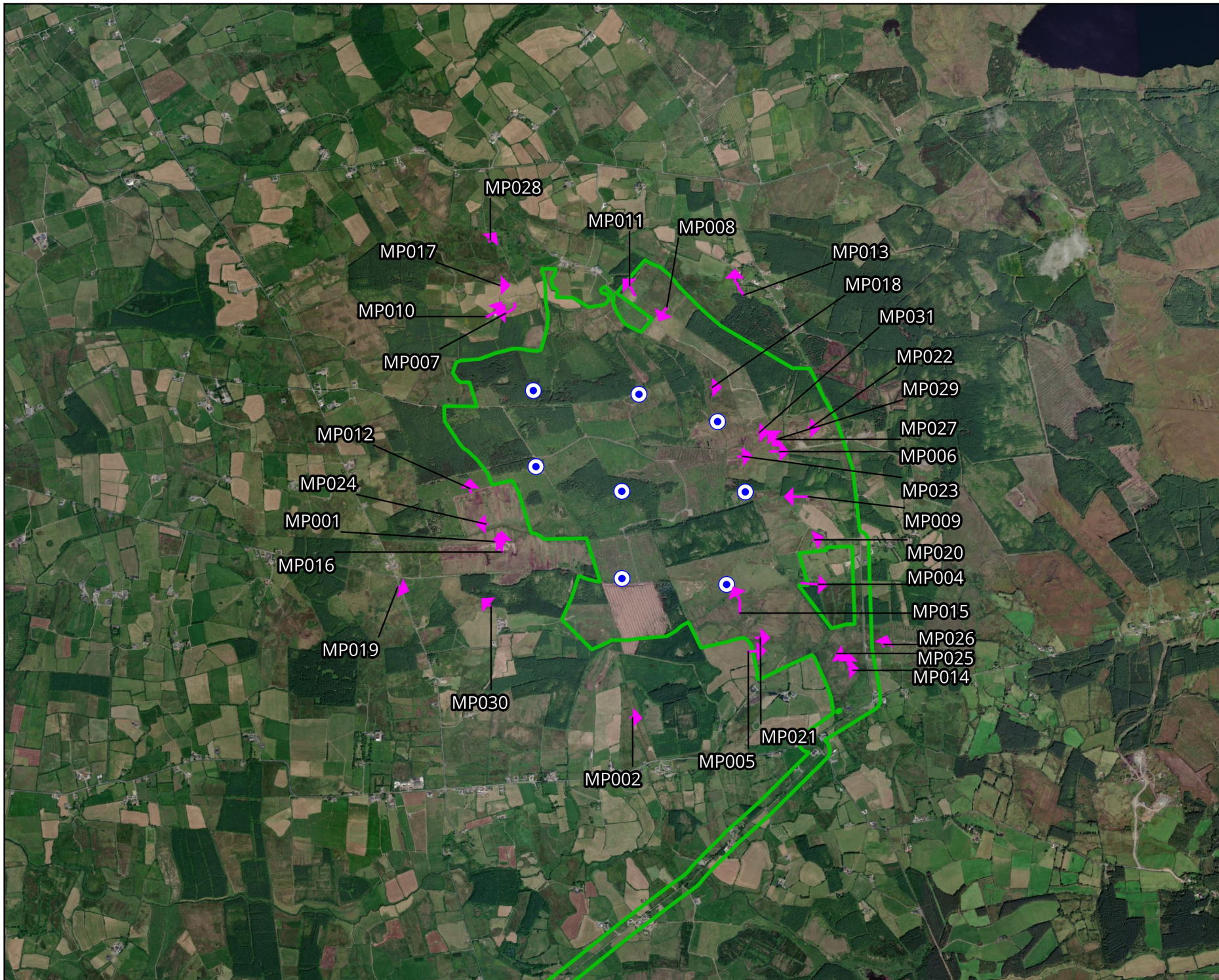
Map Legend

- EIA Site Boundary
- Proposed Turbine Layout
- Flightline






Drawing Title Meadow Pipit Observations Breeding Walkover Surveys	
Project Title Proposed Cahermurphy West Wind Farm	
Drawn By CC	Checked By PM
Project No. 230403	Drawing No. Fig 7-4-17
Scale 1:30,000	Date 04.09.25
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Map Legend

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-  Proposed Turbine Layout
-  Flightline

MP028
MP017
MP010
MP007
MP012
MP024
MP001
MP016
MP019
MP030
MP002
MP011
MP008
MP013
MP018
MP031
MP022
MP029
MP027
MP006
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MP005



Drawing Title
Meadow Pipit Observations
Winter Walkover Survey

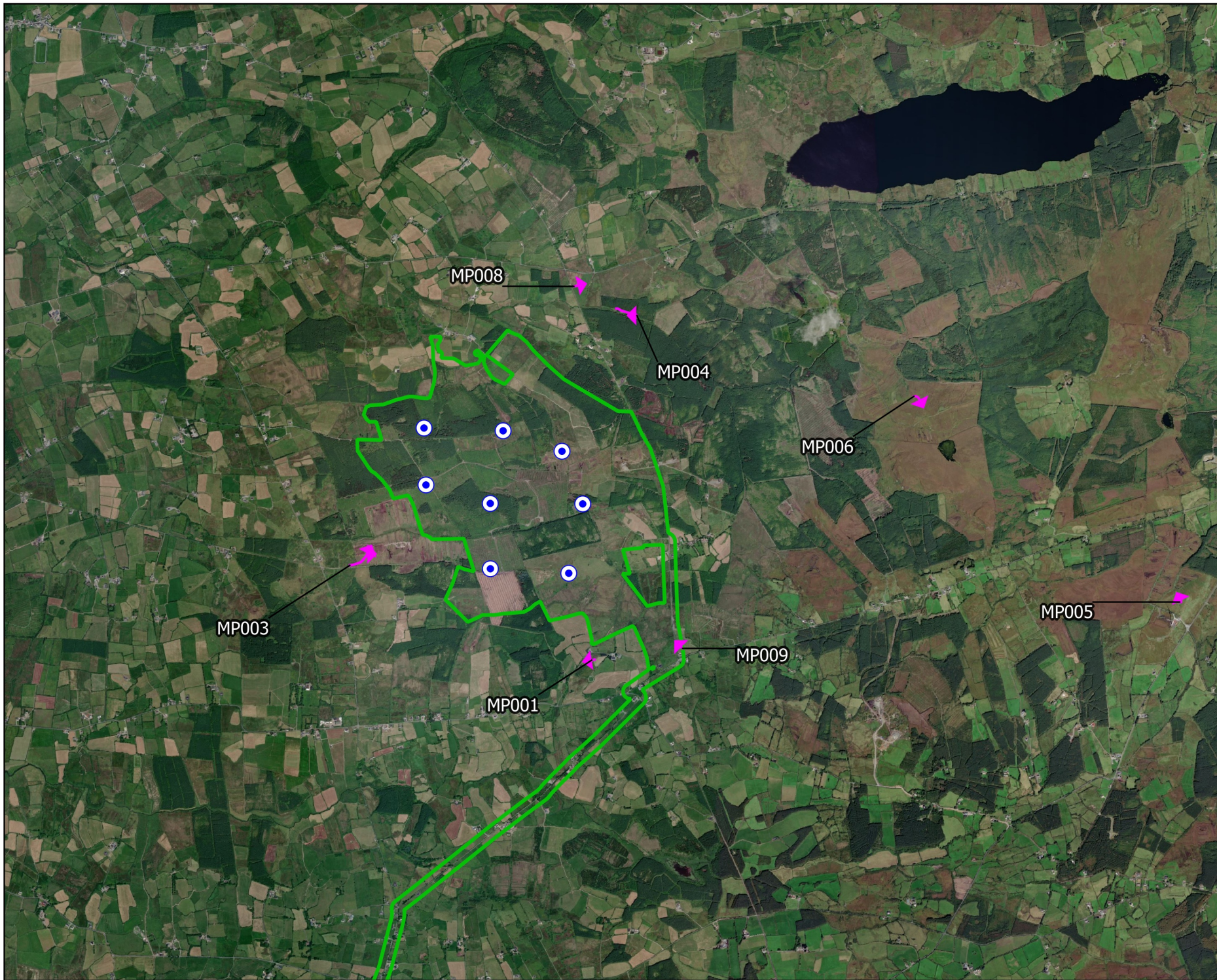
Project Title
Proposed Cahermurphy
West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-18
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-  Proposed Turbine Layout
-  Flightline



Drawing Title	
Meadow Pipit Incidental Observations	
Project Title	
Proposed Cahermurphy West Wind Farm	
Drawn By	Checked By
CC	PM
Project No.	Drawing No.
230403	Fig 7-4-19
Scale	Date
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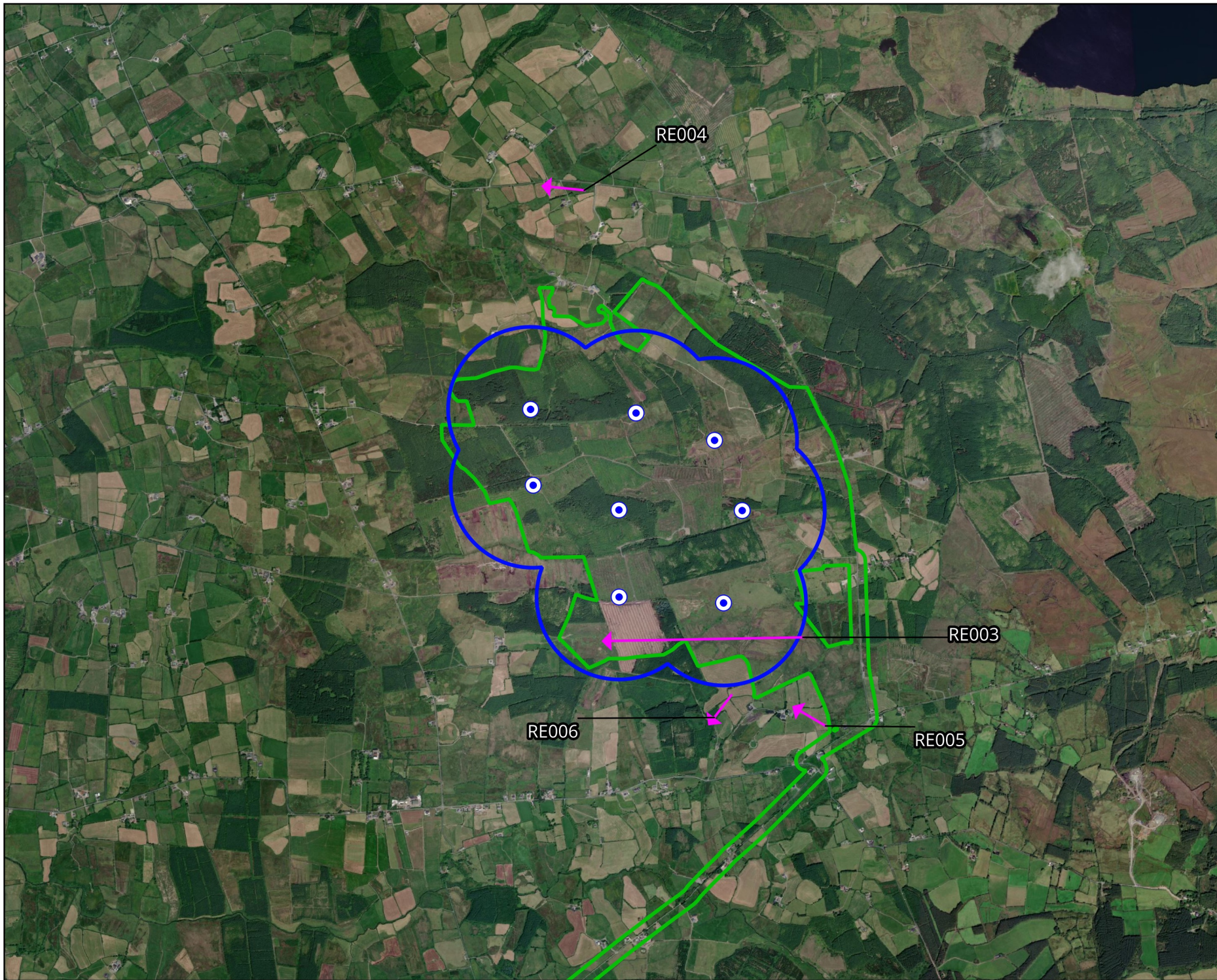
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9.





REDWING

Table 7 - 4 - 20 Redwing, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
RE001	VP2	24/11/2023	-	Redwing	1	-	-	-	-	-	improved grassland; present, moved from non-targets	DM
RE002	VP1	06/01/2024	-	Redwing	1	-	-	-	-	-	improved grassland; flitting, moved from non-targets	DM
RE003	VP2	27/12/2024	13:26	Redwing	6	25	0	25	0	0	improved agricultural grassland, conifer plantation and lowland blanket bog; flying west, indirect, went to ground., could not locate at new site. possibly feeding.	JH
RE004	VP1	20/01/2025	07:12	Redwing	6	10	10	0	0	0	wet grassland and drainage ditches; flew into wet grassland., remained on site.	JH
RE005	VP2	23/02/2025	13:06	Redwing	6	20	20	0	0	0	improved agricultural grassland and stone walls and other stonework; flew into same field as vantage point location, went to ground but flew away again to east., two fieldfare recorded above with this flock.	JH
RE006	VP2	30/03/2025	13:38	Redwing	1	12	12	0	0	0	improved agricultural grassland; feeding, then flying, flew into next field.	JH



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Flightline



Drawing Title	
Redwing Observations Vantage Point Surveys	
Project Title	
Proposed Cahermurphy West Wind Farm	
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CC	PM
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230403	Fig 7-4-20
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SNIPE

Note: Sensitive records relating to breeding sites have been omitted from this appendix and are presented separately in Appendix 7-5.

Table 7 - 4 - 21 Snipe, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN002	VP4	17/10/2023	13:50	Snipe	1	12	0	12	0	0	improved agricultural grassland; flying	SD
SN003	VP1	25/10/2023	12:37	Snipe	1	16	16	0	0	0	improved agricultural grassland and conifer plantation; flying, landed, got up, called, landed.	DM
SN004	VP4	13/12/2023	11:08	Snipe	1	-	-	-	-	-	cutover bog, conifer plantation and improved agricultural grassland; flight-call/disturbed, heard flying low over crest of rise after disturbed by car driving up track unseen.	DM
SN005	VP2	19/12/2023	10:47	Snipe	2	8	8	0	0	0	improved grassland and wet grassland; flushed, flushed off field by farmers dogs, flushed 60 metres from VP, flew to lower wet area	JH
SN006	VP2	14/02/2024	11:49	Snipe	3	15	8	7	0	0	improved agricultural grassland and cutover bog; flying, landing, flew northeast to bog.	DM
SN007	VP3	15/02/2024	12:46	Snipe	1	15	15	0	0	0	dry calcareous and neutral grassland, eroding blanket bog and cutover bog; flying, flew about 20m close to ground.	JH
SN008	VP1	11/04/2024	07:12	Snipe	1	16	5	5	6		improved agricultural grassland and conifer plantation; flushed, snipe flushed flew north	DM
SN009	VP4	07/10/2024	08:44	Snipe	1	15	15	0	0	0	raised bog; flying west	SD
SN010	VP2	08/10/2024	08:41	Snipe	1	15	15	0	0	0	improved agricultural grassland; flying west	SD
SN011	VP2	26/11/2024	14:02	Snipe	1	10	10	0	0	0	wet grassland and cutover bog; short low flight, disturbed by farmers two dogs, remained in same location	JH
SN012	VP4	04/12/2024	12:23	Snipe	1	55	19	8	28	0	dry-humid acid grassland and improved agricultural grassland; fly/land, snipe flew overhead and looped back landing in field.	DM
SN013	VP2	27/12/2024	10:58	Snipe	1	15	15	0	0	0	improved agricultural grassland and wet grassland; feeding at wet area located on grassland., flew a short distance east to another grassland site.	JH
SN014	VP3	24/02/2025	12:44	Snipe	1	15	15	0	0	0	improved agricultural grassland and conifer plantation; flying southwest	SD
SN015	VP2	30/03/2025	13:42	Snipe	1	8	8	0	0	0	cutover bog, improved agricultural grassland and scrub; feeding, short flight., remained on site	JH

Table 7 - 4 - 22 Snipe, breeding walkover survey data

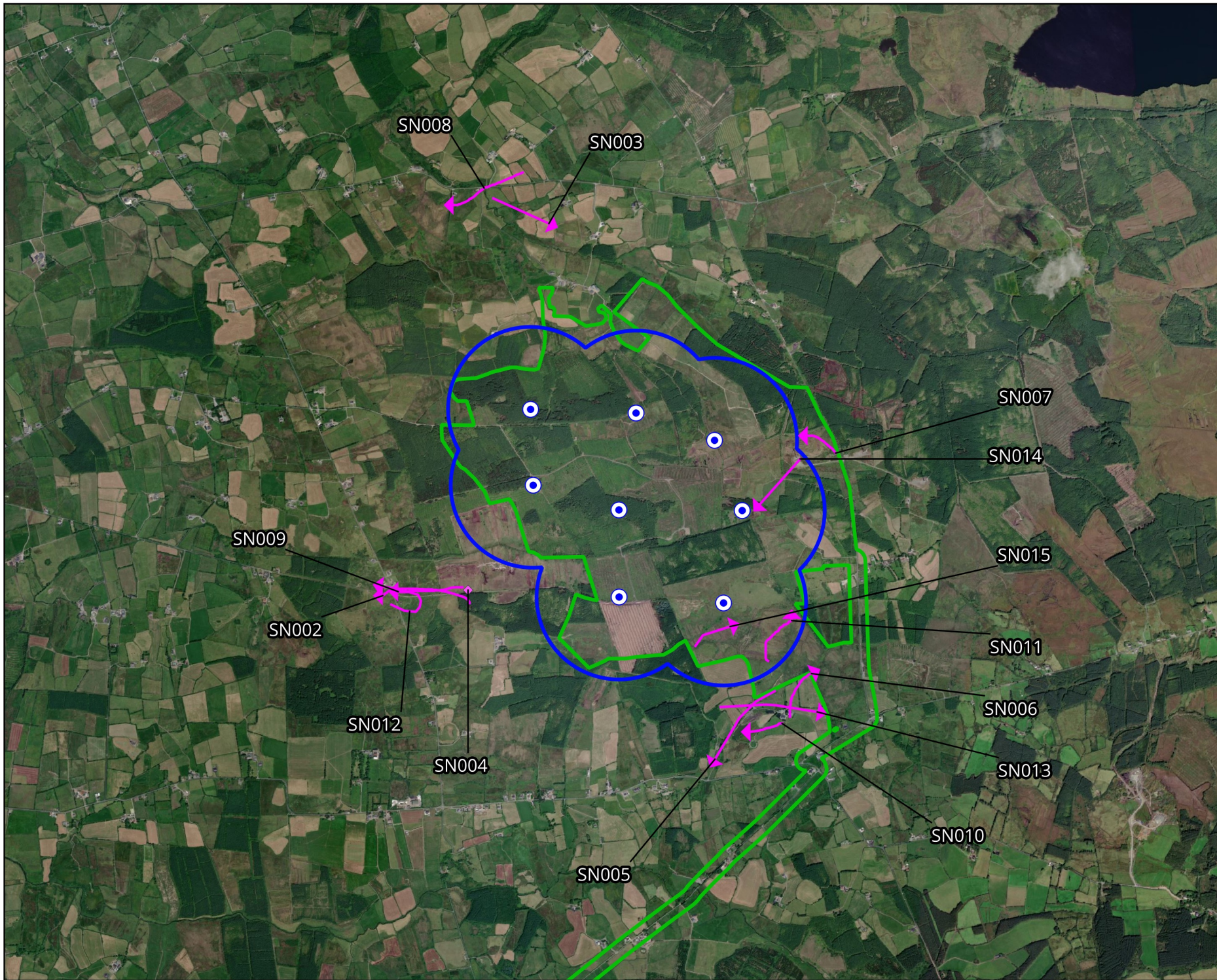
Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
SN001	30/04/2023	13:59	Snipe	1	cutover bog and conifer plantation; flushed, feeding on wet ground (suitable nesting habitat; possible breeder)	DM
SN002	30/04/2023	18:45	Snipe	1	improved agricultural grassland, cutover bog and conifer plantation; flushed (suitable nesting habitat; possible breeder)	DM
SN003	09/04/2024	11:25	Snipe	1	dry-humid acid grassland, improved agricultural grassland and conifer plantation; flushed, snipe flushed on walkover. (suitable nesting habitat; possible breeder)	DM
SN005	18/04/2024	12:06	Snipe	1	cutover bog, improved agricultural grassland and conifer plantation; flushed, snipe flushed while walking. (suitable nesting habitat; possible breeder)	DM

Table 7 - 4 - 23 Snipe, winter walkover survey data

Ref.	Date	Time	Species	Number	Habitat and activity	Surveyor
SN001	31/10/2023	09:40	Snipe	1	cutover bog, conifer plantation and improved agricultural grassland; flushed	DM
SN002	31/10/2023	10:41	Snipe	2	cutover bog, improved agricultural grassland and conifer plantation; flushed	DM
SN003	31/10/2023	11:00	Snipe	5	dry-humid acid grassland, cutover bog and improved agricultural grassland; flushed	DM
SN004	31/10/2023	13:04	Snipe	1	improved agricultural grassland, cutover bog and conifer plantation; flushed	DM
SN005	31/10/2023	13:09	Snipe	1	improved agricultural grassland, cutover bog and conifer plantation; flushed	DM
SN006	15/03/2024	09:41	Snipe	1	improved agricultural grassland and conifer plantation; flushed, snipe distributed in wet improved agricultural grassland	DM
SN008	03/10/2024	11:57	Snipe	1	lowland blanket bog, cutover bog and improved agricultural grassland; disturbed, flushed	DM
SN009	07/11/2024	08:43	Snipe	1	cutover bog; flushed, flushed from bog remnant.	DM
SN010	07/11/2024	09:44	Snipe	3	dry-humid acid grassland; flushed, flushed from field.	DM
SN011	07/02/2025	12:53	Snipe	2	dry-humid acid grassland and cutover bog; flushed	DM
SN012	07/02/2025	13:48	Snipe	1	cutover bog; flushed	DM
SN013	12/03/2025	10:11	Snipe	2	dry-humid acid grassland and conifer plantation; flushed	DM
SN014	12/03/2025	10:16	Snipe	1	dry-humid acid grassland; flushed	DM

Table 7 - 4 - 24 Snipe, incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN002	Hen Harrier Roost Survey; HHVP 3	30/10/2023	17:44	Snipe	2	cutover bog, conifer plantation and improved agricultural grassland; calling, flying, flight call, flying low around cutover bog	DM
SN003	Hen Harrier Roost Survey; HHVP 3	25/11/2023	15:23	Snipe	1	lowland blanket bog; flying, flew west offsite	SD
SN004	Hen Harrier Roost Survey; HHVP 3	25/11/2023	17:12	Snipe	1	lowland blanket bog; flying, flew east	SD
SN005	Hen Harrier Roost Survey; HHVP 3	15/12/2023	14:10	Snipe	1	lowland blanket bog; flying, flushed by hen harrier, travelling west	SD
SN006	Hen Harrier Roost Survey; HHVP 3	15/12/2023	15:05	Snipe	4	lowland blanket bog; flying, heading southeast	SD
SN007	Hen Harrier Roost Survey; HHVP 3b	18/01/2024	17:30	Snipe	1	lowland blanket bog; flying, flew across the bog from west to east	SD
SN008	Hen Harrier Roost Survey; HHVP 3	02/10/2024	18:05	Snipe	5	raised bog; flying, travelling west	SD
SN009	Hen Harrier Roost Survey; HHVP 3	04/11/2024	17:33	Snipe	1	cutover bog; flying, calling, flying west and calling.	DM
SN010	Hen Harrier Roost Survey; HHVP 5	29/11/2024	16:09	Snipe	3	improved agricultural grassland and conifer plantation; flying, flying into site west	DM
SN011	Hen Harrier Roost Survey; HHVP 6	03/12/2024	16:02	Snipe	2	cutover bog and improved agricultural grassland; flying, sn2 got up from pb4 flying south	DM



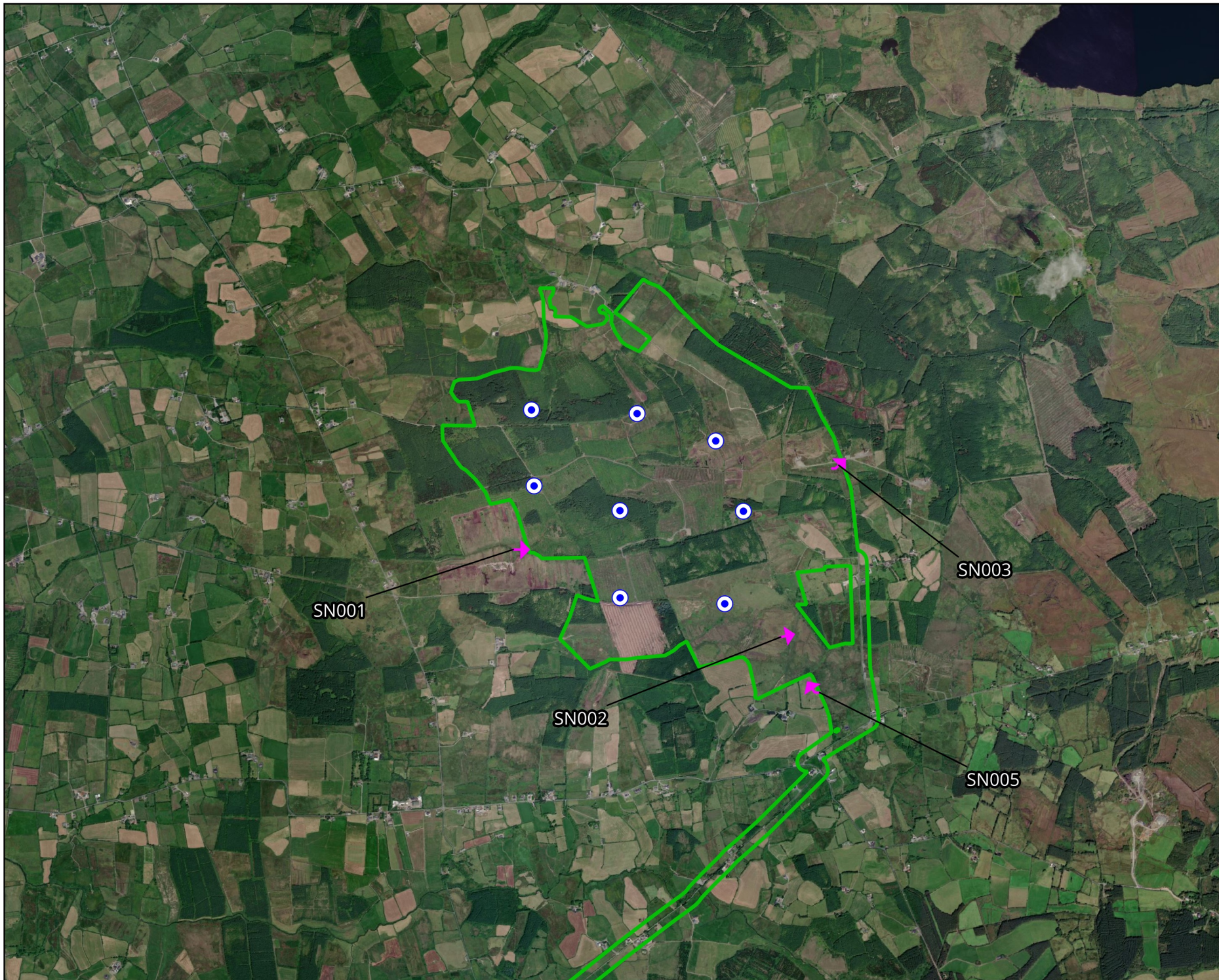
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- Proposed Turbine Layout
- 500m Buffer of Proposed Turbine Layout
- Flightline
- ◆ Observation






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Project Title Proposed Cahermurphy West Wind Farm	
Drawn By CC	Checked By PM
Project No. 230403	Drawing No. Fig 7-4-21
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Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title
**Snipe Observations
 Breeding Walkover Surveys**

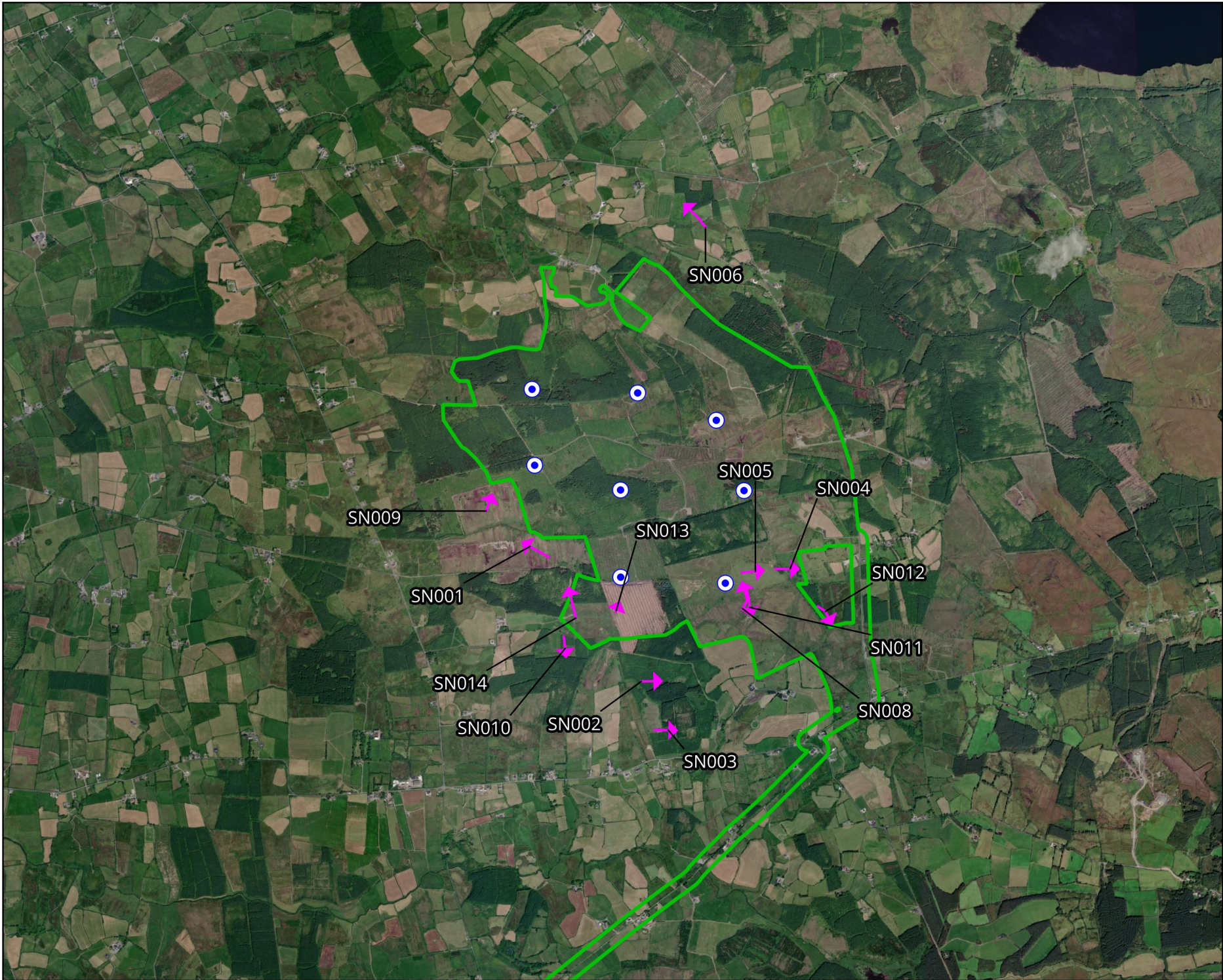
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Map Legend

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-  Flightline

SN006

SN005

SN004

SN009

SN013

SN012

SN001

SN011

SN014

SN010

SN002

SN003

SN008



Drawing Title
**Snipe Observations
 Winter Walkover Survey**

Project Title
**Proposed Cahermurphy
 West Wind Farm**

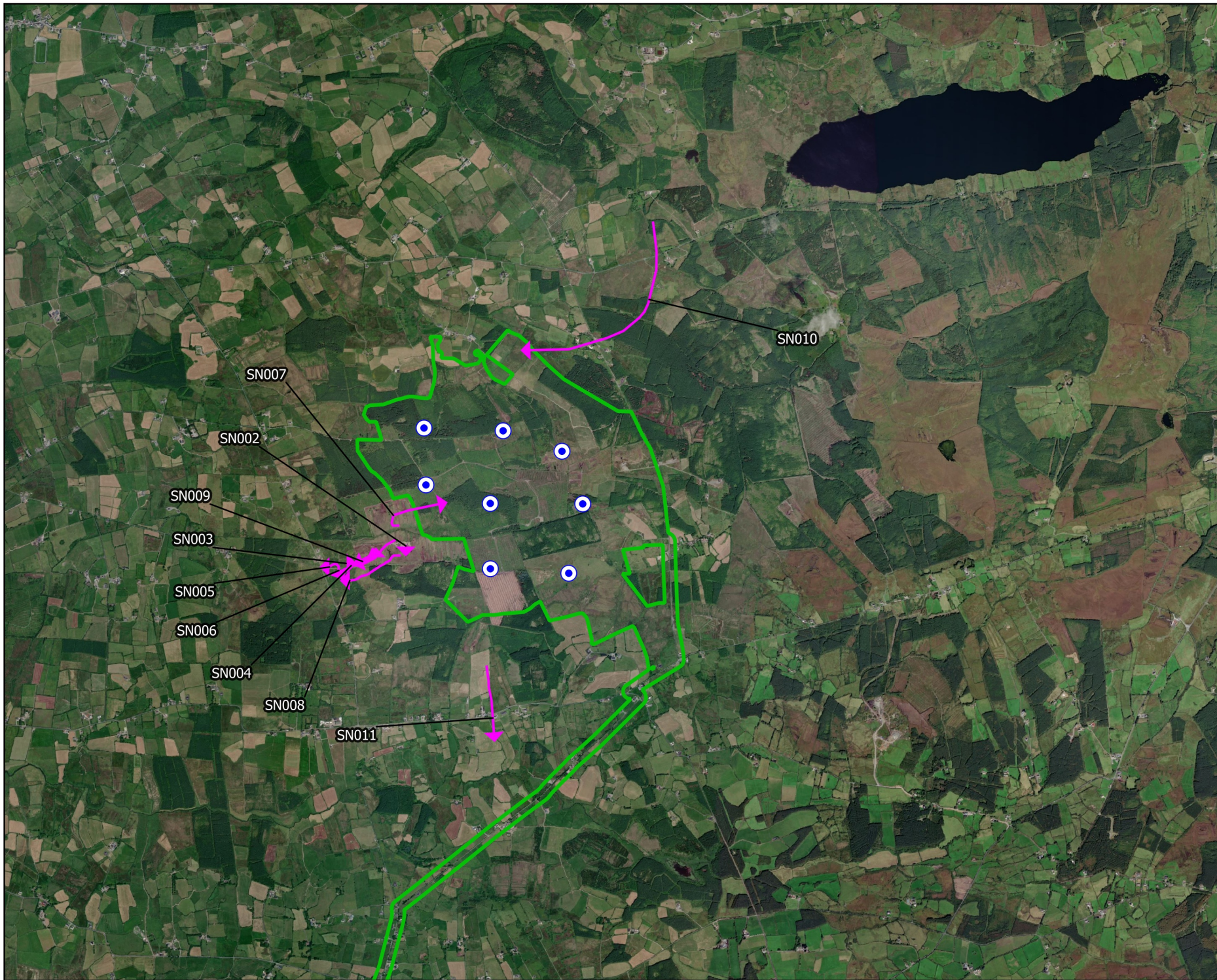
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Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title		Snipe Incidental Observations	
Project Title			
Proposed Cahermurphy West Wind Farm			
Drawn By	CC	Checked By	PM
Project No.	230403	Drawing No.	Fig 7-4-24
Scale	1:40,000	Date	04.09.25
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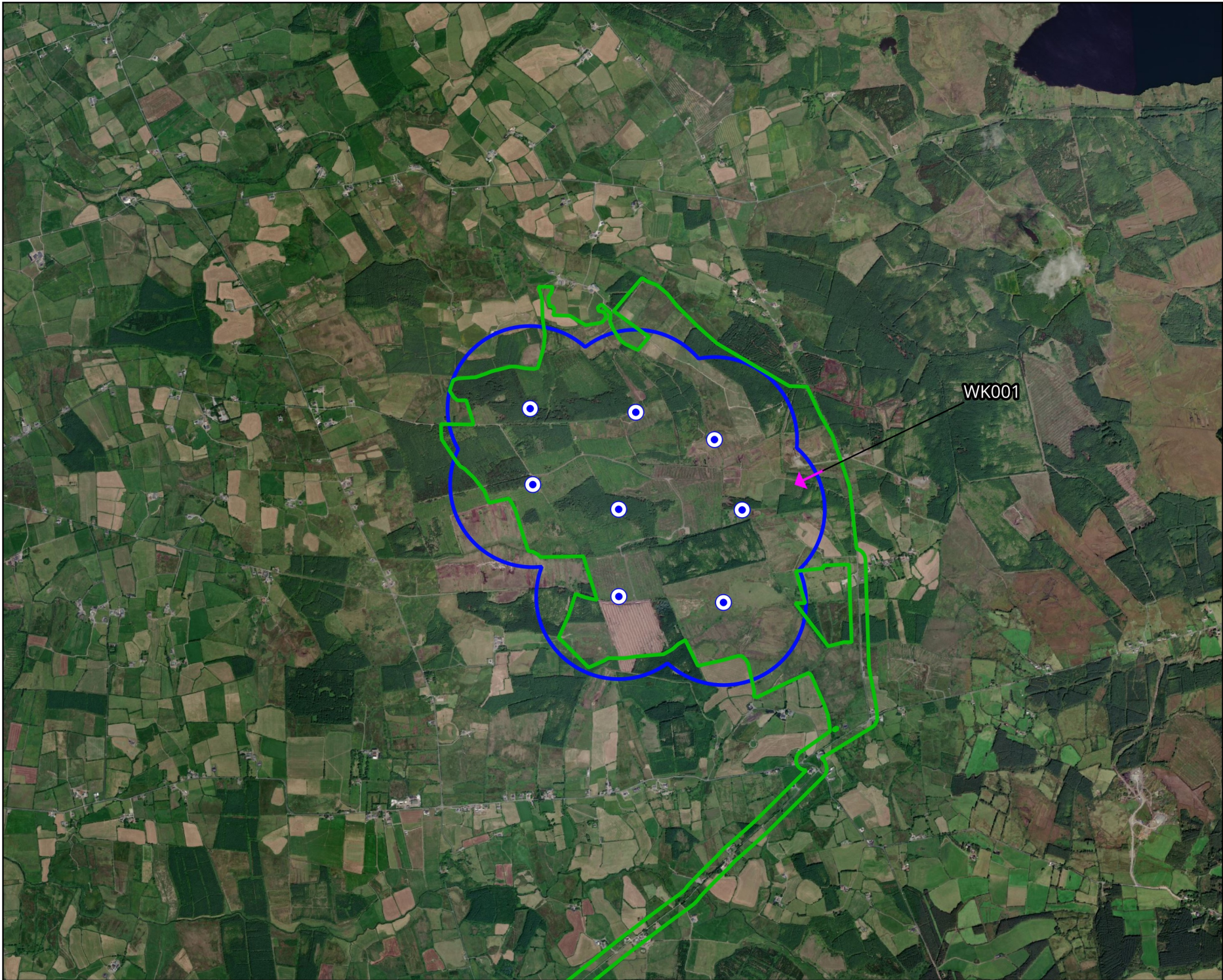
WOODCOCK

Table 7 - 4 - 25 Woodcock, vantage point survey data





Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WK001	VP3	12/01/2024	12:36	Woodcock	1	10	10	0	0	0	recolonising bare ground, scrub and eroding blanket bog; flying, short flight along pathway	JH

Table 7 - 4 - 26 Woodcock, Incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WK001	Hen Harrier Roost Survey; HHVP 3a	18/01/2024	17:45	Woodcock	2	conifer plantation, cutover bog and improved agricultural grassland; roosting, disturbed, disturbed from forestry track on drive out.	DM
WK002	Hen Harrier Roost Survey; HHVP 3b	18/01/2024	17:45	Woodcock	1	conifer plantation; flying, travelling west along forest road	SD
WK003	Hen Harrier Roost Survey; HHVP 6	07/11/2024	17:19	Woodcock	1	improved agricultural grassland; flying west, 15 metres for 8 seconds	SD



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Flightline

WK001



Drawing Title
Woodcock Observations
Vantage Point Surveys

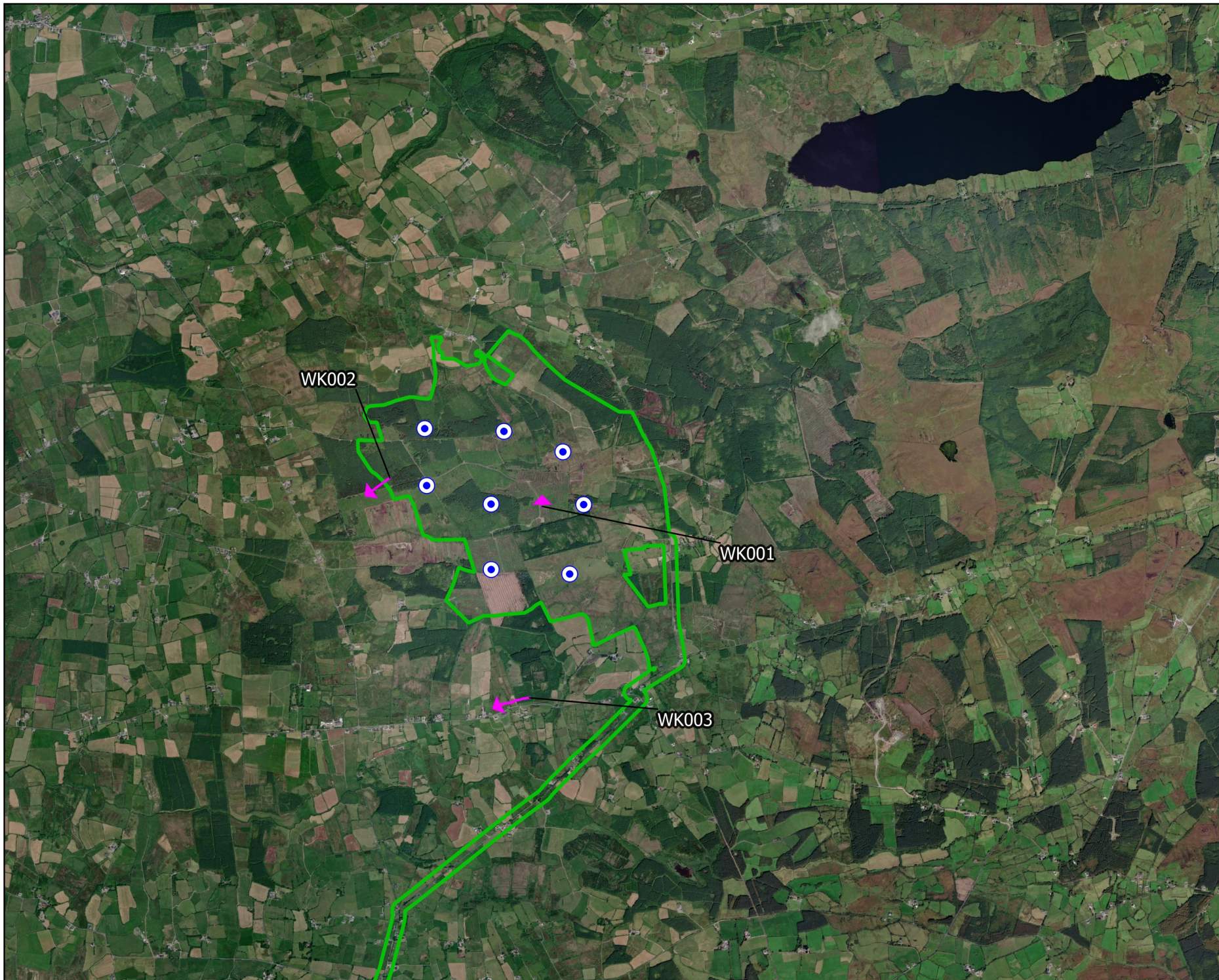
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Map Legend

-  EIA Site Boundary
-  Proposed Turbine Layout
-  Flightline

WK002

WK001

WK003



Drawing Title
Woodcock
Incidental Observations

Project Title
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West Wind Farm

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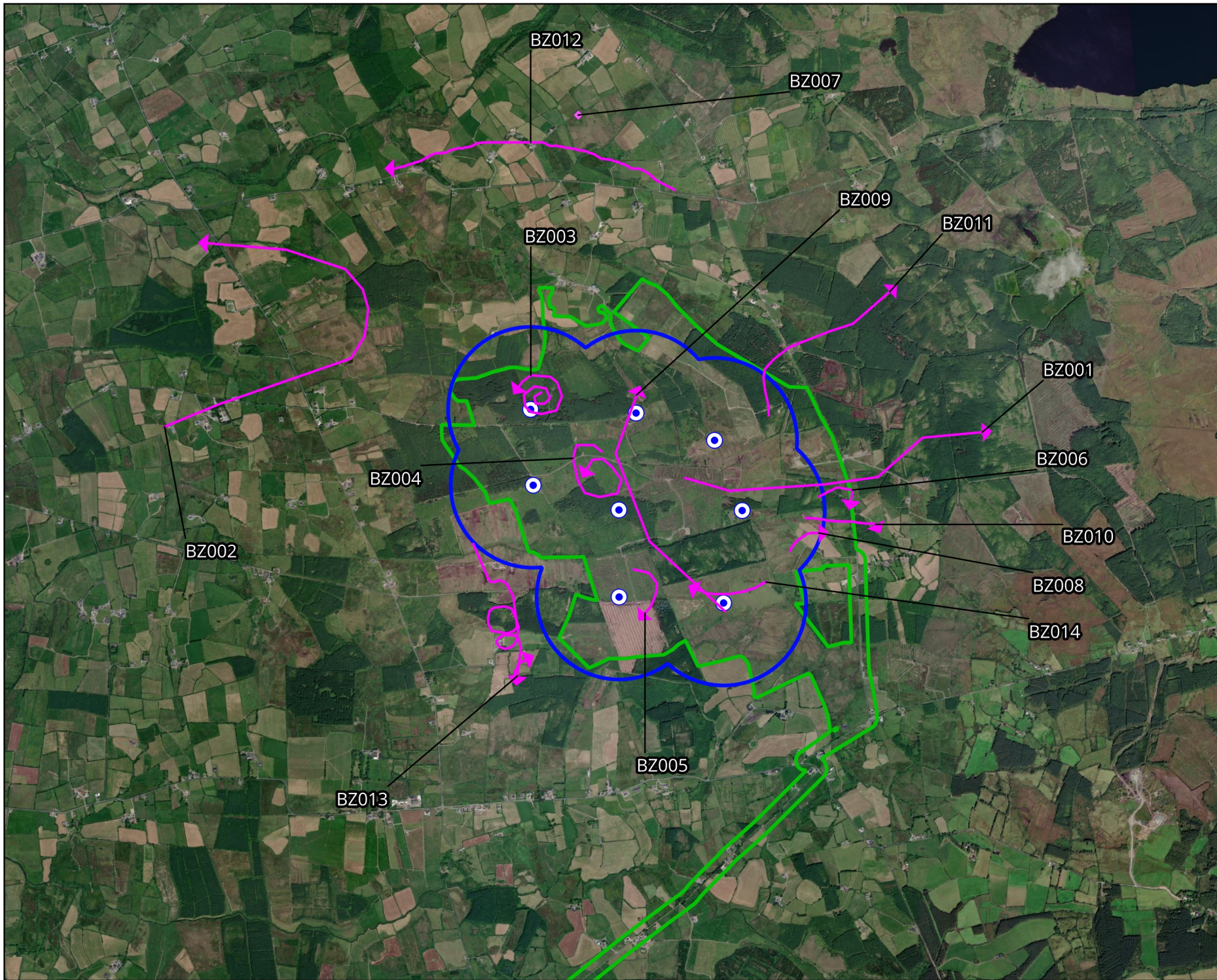
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BUZZARD






Table 7 - 4 - 27 Buzzard, vantage point survey data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ001	VP2	26/04/2023	11:37	Buzzard	1	35	0	35	0	0	conifer plantation and exposed sand, gravel or till; commuting, flying east, gliding 70%, flapping 30%	JH
BZ002	VP1	19/05/2023	08:32	Buzzard	1	25	0	25	0	0	dry-humid acid grassland, improved grassland and lowland blanket bog; commuting, flew from west, then turned and flew back west again.	JH
BZ003	VP1	08/06/2023	12:57	Buzzard	1	70	0	0	70	0	conifer plantation, scrub and upland blanket bog; gliding over woodland., dropped back down into forest.	JH
BZ004	VP4	13/06/2023	10:19	Buzzard	2	30	0	0	30	0	conifer plantation, scrub and dry calcareous and neutral grassland; soaring, over forest, lost from view over forest	JH
BZ005	VP2	17/06/2023	13:08	Buzzard	1	15	0	0	15	0	conifer plantation; soaring, 60m	SD
BZ006	VP3	24/06/2023	20:06	Buzzard	1	10	0	0	10	0	conifer plantation and dry-humid acid grassland; flying, flying over conifer plantation canopy	DM
BZ007	VP1	25/08/2023	19:03	Buzzard	1	-	-	-	-	-	improved agricultural grassland and conifer plantation; calling, heard calling to northeast, not seen, off site	DM
BZ008	VP2	24/11/2023	15:08	Buzzard	1	8	8	0	0	0	improved agricultural grassland, conifer plantation and cutover bog; take-off/land, got up from ground in field, then perched in conifer.	DM
WK001	VP3	12/01/2024	12:36	Woodcock	1	10	10	0	0	0	recolonising bare ground, scrub and eroding blanket bog; flying, short flight along pathway	JH
BZ009	VP5	12/01/2024	14:18	Buzzard	1	90	0	20	70	0	conifer plantation, semi-natural grassland and cutover bog; flying, flying north, confronted by 2 ravens.	JH
BZ010	VP3	15/02/2024	15:36	Buzzard	1	30	0	0	30	0	improved agricultural grassland, conifer plantation and scrub; flying east, later perched on mast	JH
BZ011	VP3	20/03/2024	16:35	Buzzard	1	80	0	0	80	0	conifer plantation, upland blanket bog and dry-humid acid grassland; commuting, flying northeast over woodland /bog.	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ012	VP1	14/06/2024	14:43	Buzzard	1	40	0	0	40	0	improved agricultural grassland, scrub and dry-humid acid grassland; flying, mobbed, flying west, then attacked by lesser black backed gull, continued to fly west.	JH
BZ013	VP4	19/09/2024	09:50	Buzzard	1	130	0	0	130	0	conifer plantation, dry meadows and grassy verges and improved agricultural grassland; soaring and circling at about 80 mts., drifted out of view south.	JH
BZ014	VP2	08/10/2024	08:52	Buzzard	1	50	0	0	50	0	improved agricultural grassland; flying west	SD



Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  500m Buffer of Proposed Turbine Layout
-  Flightline
-  Observation



Drawing Title	
Buzzard Observations Vantage Point Surveys	
Project Title	
Proposed Cahermurphy West Wind Farm	
Drawn By	Checked By
CC	PM
Project No.	Drawing No.
230403	Fig 7-4-27
Scale	Date
1:30,000	04.09.25

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13.

SPARROWHAWK

Note: Sensitive records relating to breeding sites have been omitted from this appendix and are presented separately in Appendix 7-5.

Table 7 - 4 - 28 Sparrowhawk, vantage point survey data

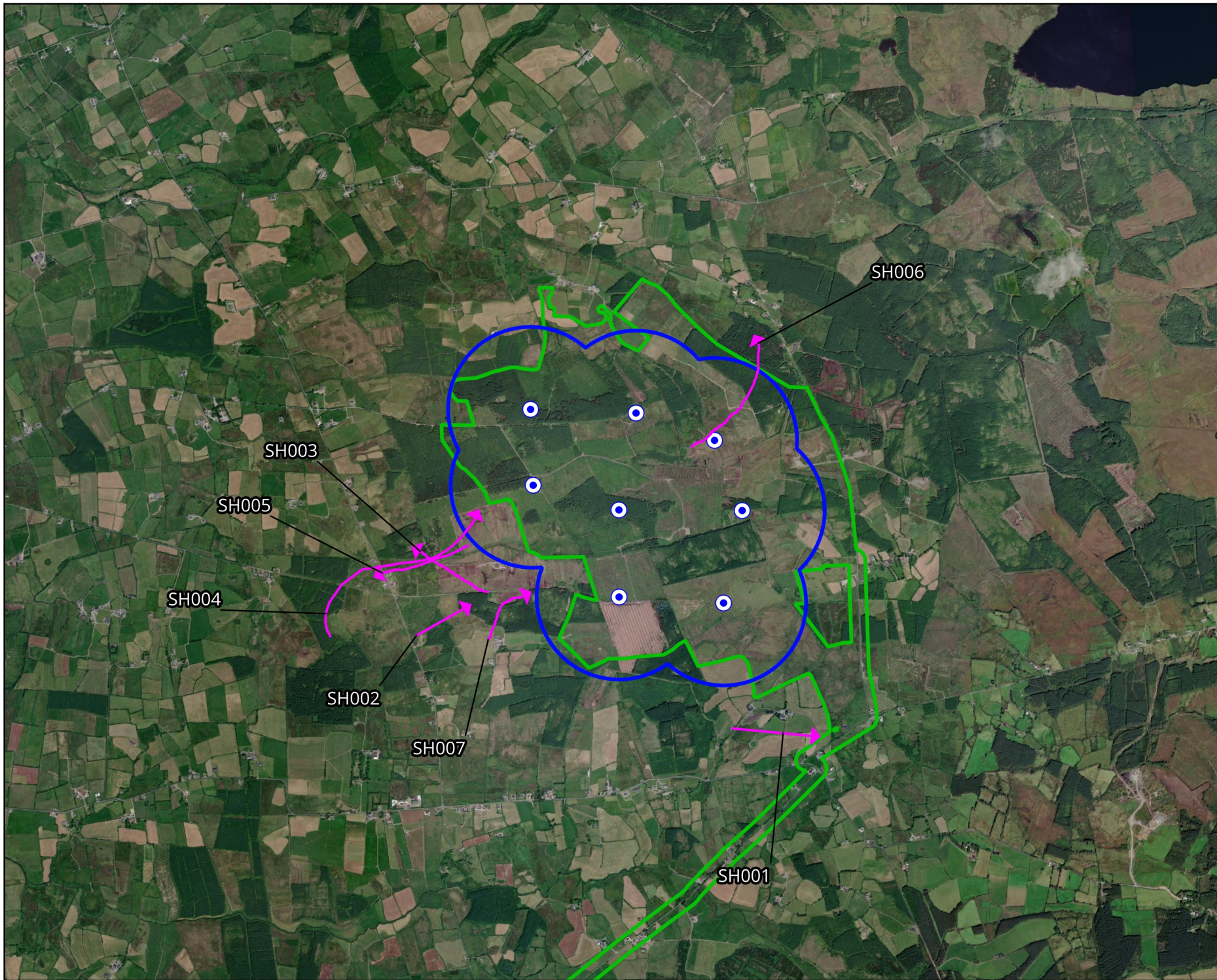
Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH001	VP2	28/10/2023	14:25	Sparrowhawk	1	20	20	0	0	0	improved agricultural grassland, hedgerows and treelines; flying, flying direct and fast into scrub, lost from view and not seen again	JH
SH002	VP4	17/01/2024	14:45	Sparrowhawk	1	12	12	0	0	0	hedgerows; hunting along road and hedgerows, adult female	SD
SH003	VP4	16/08/2024	09:21	Sparrowhawk	1	20	20	0	0	0	raised bog; hunting low over bog, flying northwest	SD
SH004	VP4	19/09/2024	11:05	Sparrowhawk	1	45	20	15	10	0	improved agricultural grassland, conifer plantation and buildings and artificial surfaces; flew across farmland east, then entered woodland., not hunting, more like commuting.	JH
SH005	VP4	07/10/2024	09:46	Sparrowhawk	1	135	105	30	0	0	raised bog; flying west	SD
SH006	VP3	28/10/2024	09:37	Sparrowhawk	1	40	40	0	0	0	cutover bog, improved agricultural grassland and conifer plantation; low flight over cut over bog and grassland. hunting, continued north and out of view.	JH

Table 7 - 4 - 29 Sparrowhawk, breeding raptor survey data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
SH001	BR3	12/07/2024	13:15	Sparrowhawk	1	raised bog, hunting south low	singing male; possible breeder	SD

Table 7 - 4 - 30 Sparrowhawk, incidental observation data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SH001	Hen Harrier Roost Survey; HHVP 2	02/02/2024	17:15	Sparrowhawk	1	wet grassland; hunting, rough grassland, low southwest	SD
SH002	Breeding Raptor Survey; 513,322 :671;916	28/07/2024	14:40	Sparrowhawk	3	conifer plantation and lowland blanket bog; calling, flying, adult flying and calling, two juveniles returning calls but remained within a limited area within the woodland. I remained in the area for about 30 min. two juveniles seen perched, possibly a third calling at times. location is about 1km northwest of survey location	JH
SH003	Hen Harrier Roost Survey; HHVP 2	08/11/2024	16:20	Sparrowhawk	1	improved agricultural grassland; flying east, 12 metres for 30 seconds	SD



Map Legend

- EIA Site Boundary
- Proposed Turbine Layout
- 500m Buffer of Proposed Turbine Layout
- Flightline

SH006

SH003

SH005

SH004

SH002

SH007

SH001



Drawing Title
Sparrowhawk Observations
Vantage Point Surveys

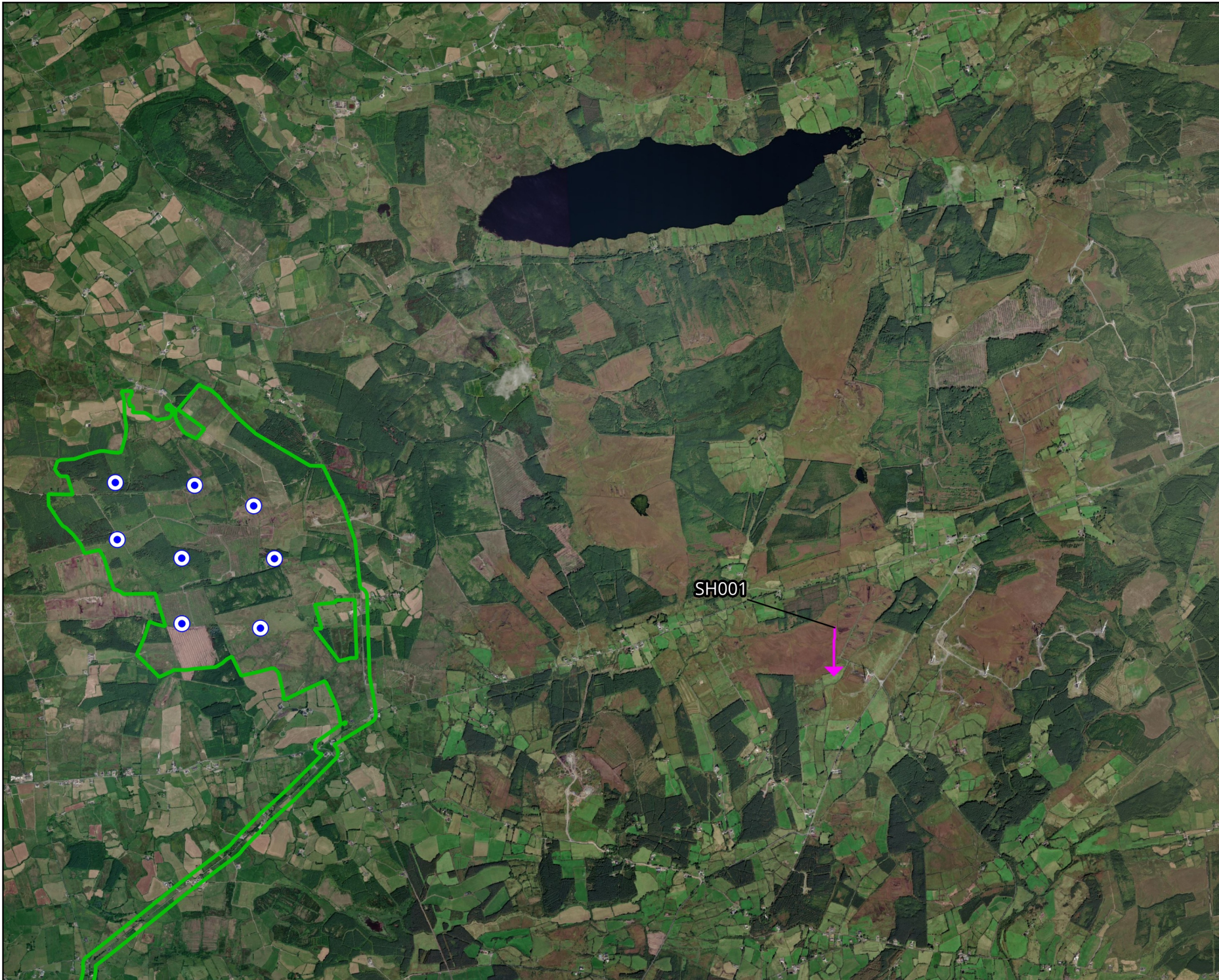
Project Title
Proposed Cahermurphy
West Wind Farm

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-28
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Scale 1:30,000	Date 04.09.25
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Map Legend

- EIAR Site Boundary
- Proposed Turbine Layout
- Flightline



Drawing Title
**Sparrowhawk Observations
 Breeding Raptor Surveys**

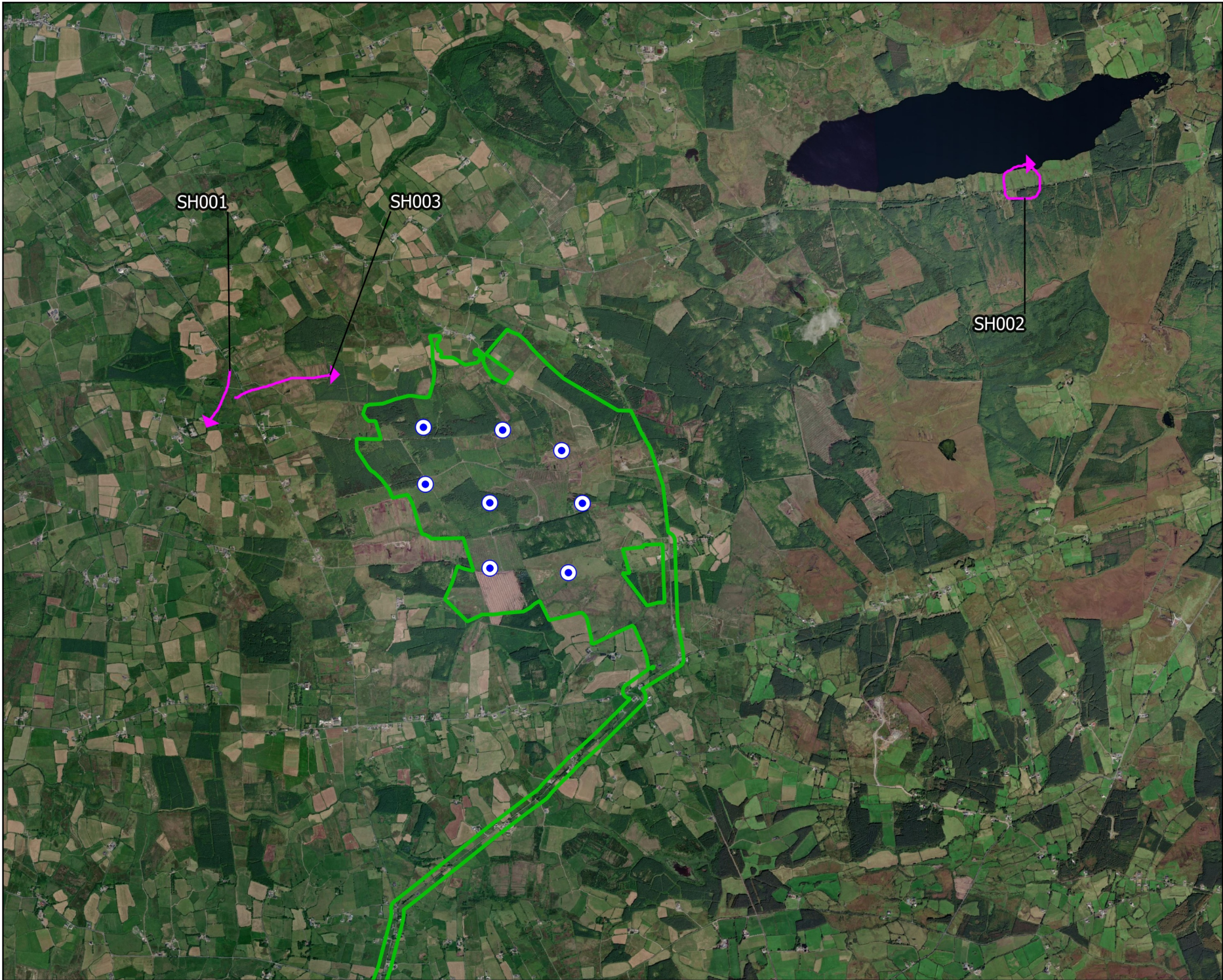
Project Title
**Proposed Cahermurphy
 West Wind Farm**

Drawn By CC	Checked By PM
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Project No. 230403	Drawing No. Fig 7-4-29
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Scale 1:40,000	Date 04.09.25
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Map Legend

-  EIAR Site Boundary
-  Proposed Turbine Layout
-  Flightline



Drawing Title	
Sparrowhawk Incidental Observations	
Project Title	
Proposed Cahermurphy West Wind Farm	
Drawn By	Checked By
CC	PM
Project No.	Drawing No.
230403	Fig 7-4-30
Scale	Date
1:40,000	04.09.25
	
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