



APPENDIX 8-5

NON-CORE SURVEY DATA

Appendix 8-5 – Non-Core Survey Data

Proposed Cahermurphy Two
Windfarm





DOCUMENT DETAILS

Client: **Mid Clare Renewable Energy Wind Farm Ltd.**

Project Title: **Proposed Cahermurphy Two Windfarm**

Project Number: **170238**

Document Title: **Appendix 8-5 – Non-core Survey Data**

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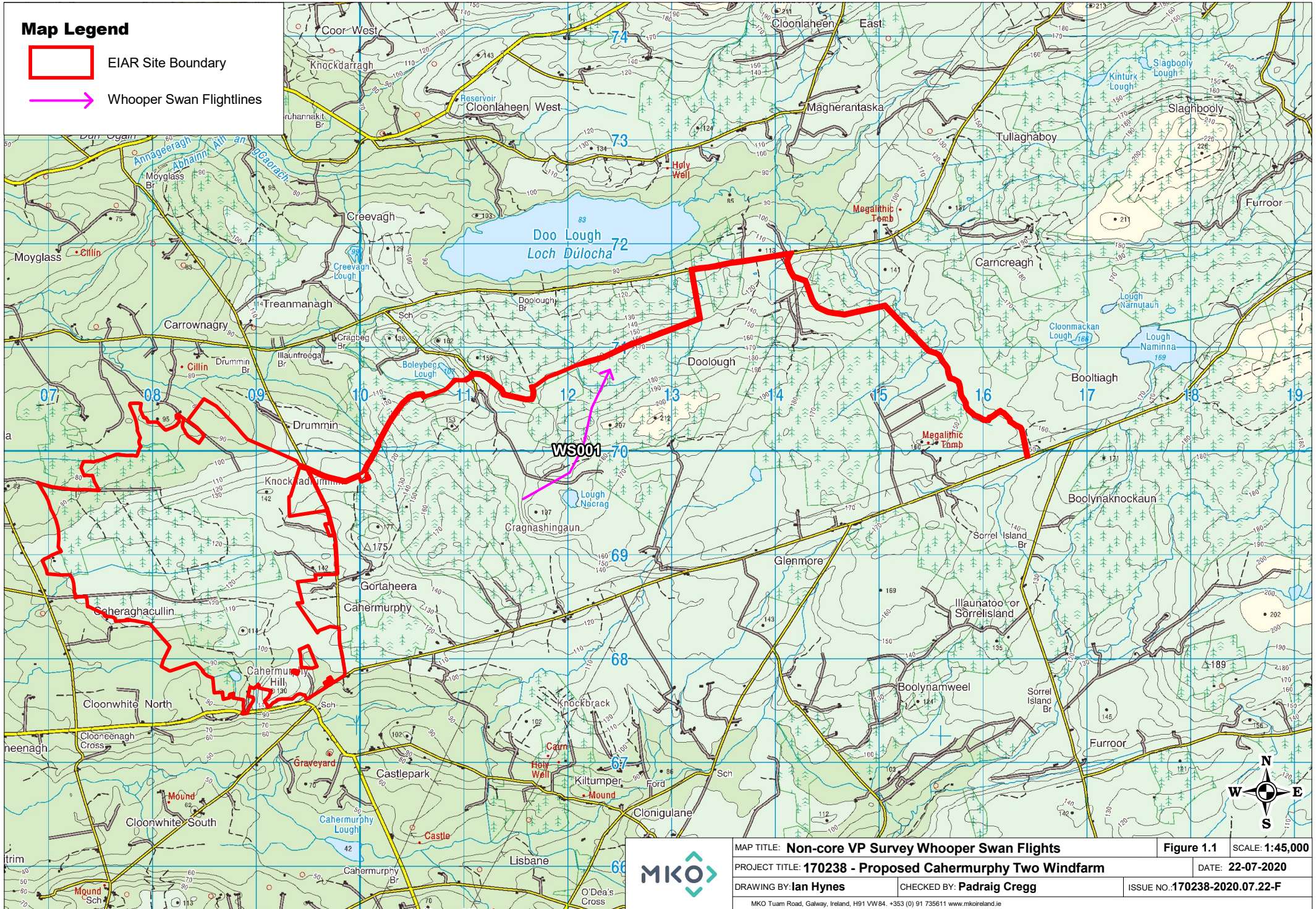
APPENDIX 8-5 (ADDITIONAL SURVEY DATA)

Table I-1 Whooper Swan Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
WS001	02/11/2017	VP4	Whooper Swan	7	11:51:00	48					48		PB4, (Cutover bog) WD4, (Conifer plantation) Travelling	Small Flock	JK

Map Legend

-  EIAR Site Boundary
-  Whooper Swan Flightlines



MAP TITLE: Non-core VP Survey Whooper Swan Flights	Figure 1.1	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm	DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie		

Table 1-2 Golden Plover Vantage Point Survey Data



Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP001	21/04/2018	VP4	Golden Plover	17	13:03:00	150	120	30	20	40	60		PB2, (Upland blanket bog) Landed on bog; height up to c.40m		P.Troake
GP002	14/01/2019	VP4	Golden Plover	45	11:10:00	150	130	20	15	15	120		PB2, (Upland blanket bog) FL1, (Dystrophic lakes) Circling	Flock of 45 Golden Plover circling over lake and bog before landing on area of bog near the lake.	TK

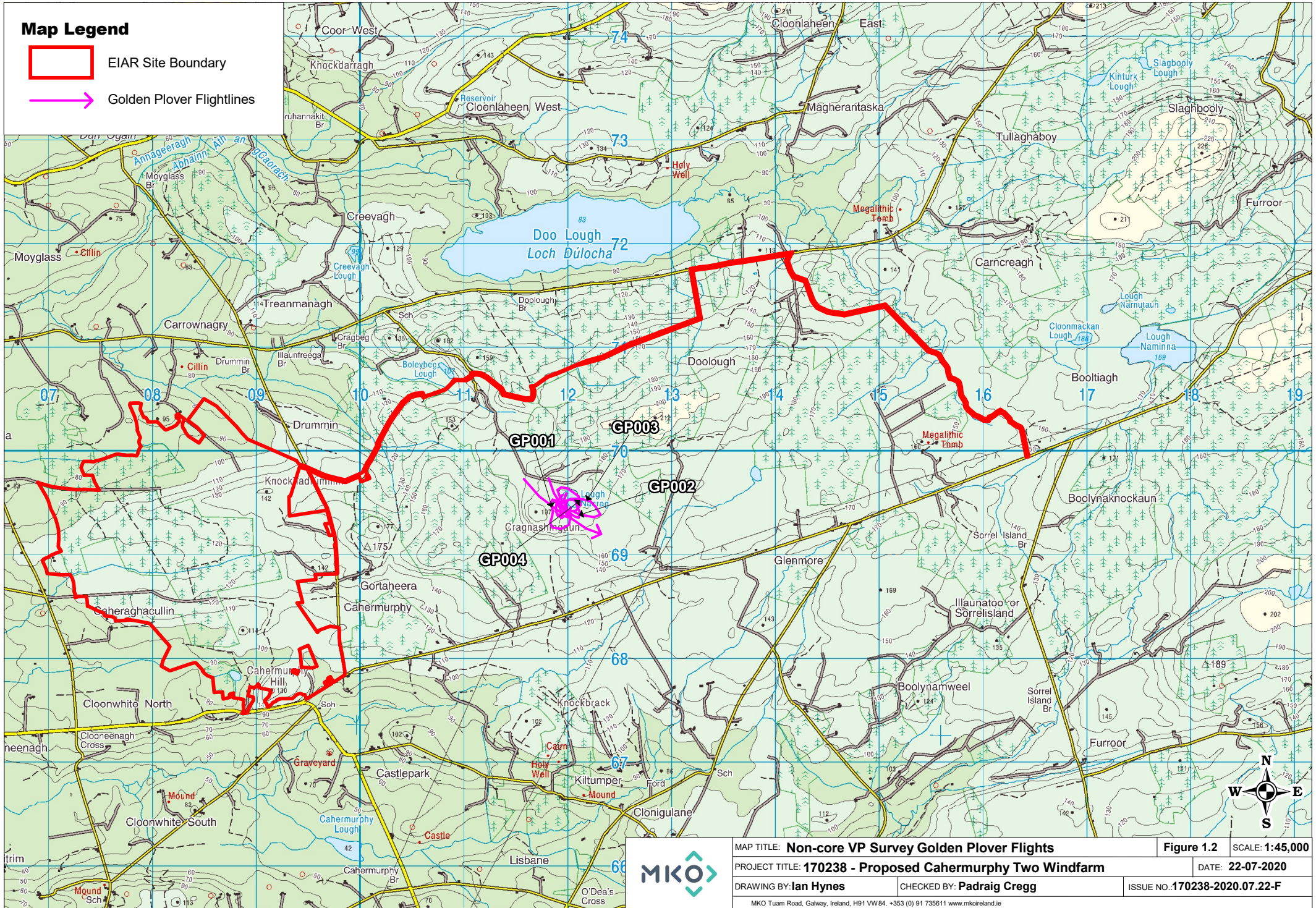
Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP003	14/01/2019	VP4	Golden Plover	45	11:33:00	60	60		5	15	40		PB2, (Upland blanket bog) FL1, (Dystrophic lakes) Flying	Flock of 45 Golden Plover took flight from ground, circling briefly before flying in an easterly direction	TK
GP004	14/01/2019	VP4	Golden Plover	8	12:22:00	120	120		20	20	80		PB2, (Upland blanket bog) FL1, (Dystrophic lakes) Circling	Flock of 8 Golden Plover circling over lake and bog before landing on area of bog near the lake.	TK

Table 1-3 Golden Plover Winter Walkover Survey Data

Final Ref No.	Survey Date	Trans No.	Species	Target Species	Number of birds	Habitat and Activity	Comments	Surveyor
GP001	20/01/2019	6	European Golden Plover	Y	6	PB2, (upland blanket bog)	Roosting on ground	TK



Map Legend

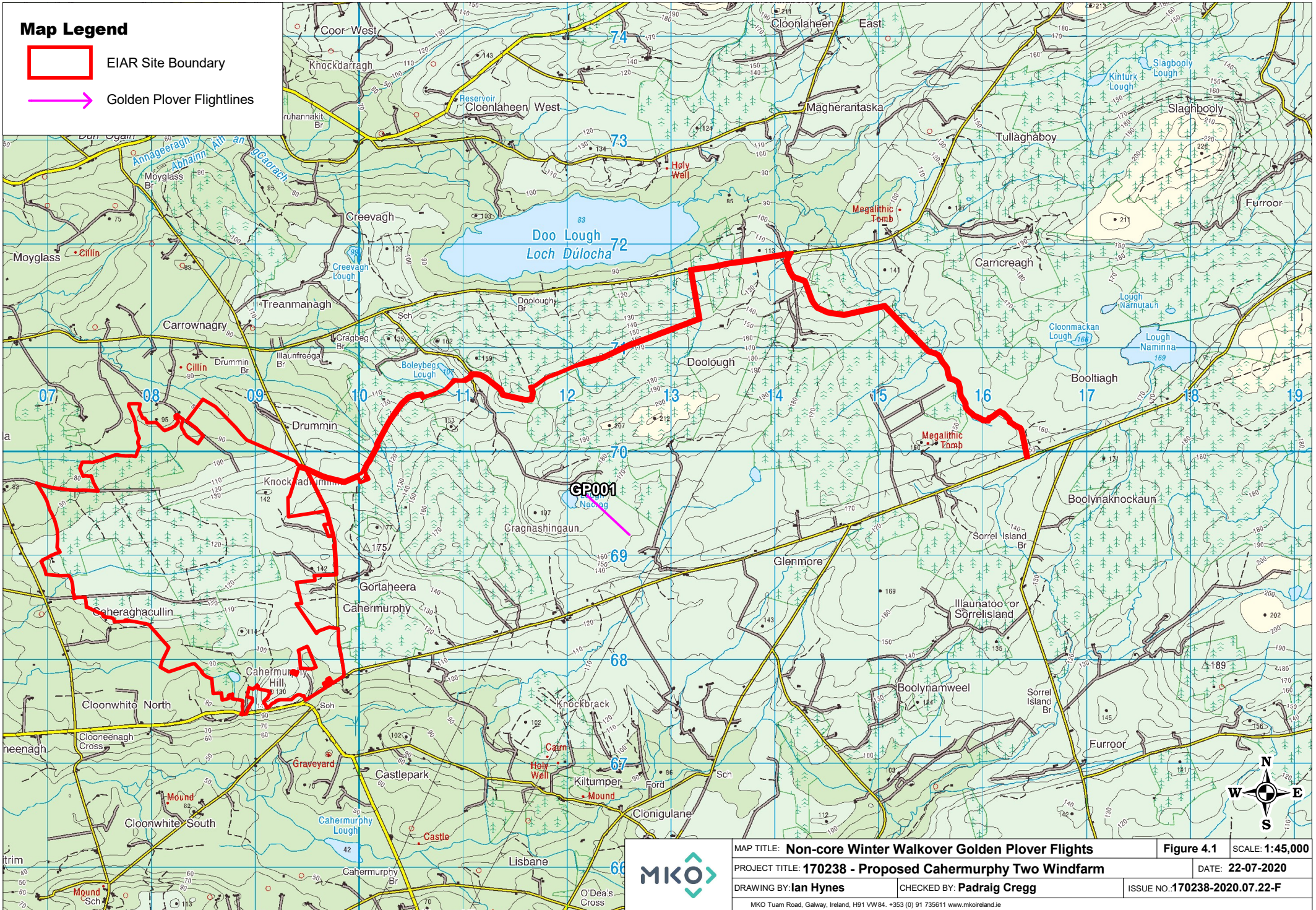
-  EIAR Site Boundary
-  Golden Plover Flightlines



MAP TITLE: Non-core VP Survey Golden Plover Flights		Figure 1.2	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Map Legend

-  EIAR Site Boundary
-  Golden Plover Flightlines





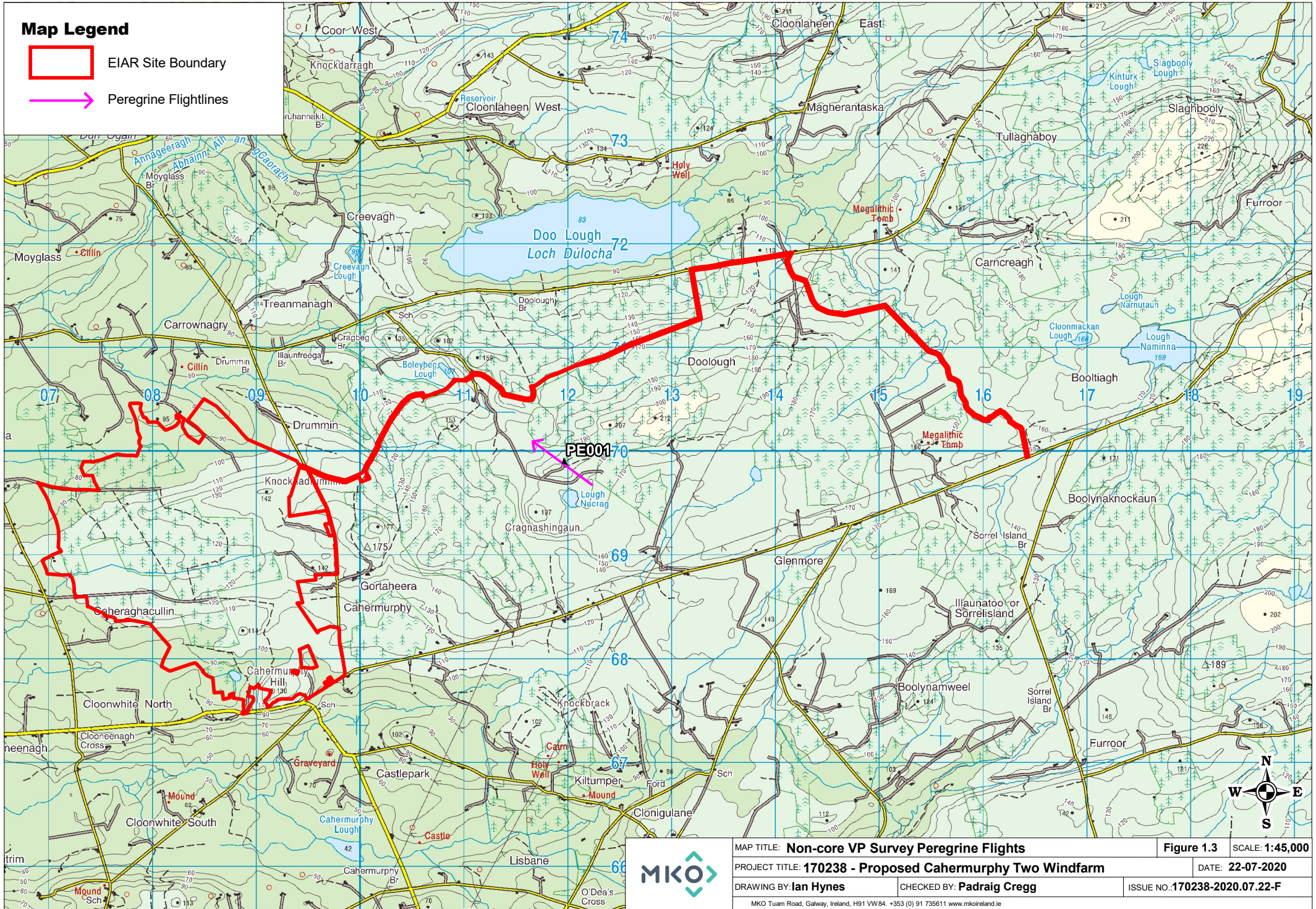
MAP TITLE: Non-core Winter Walkover Golden Plover Flights		Figure 4.1	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie			

Table 1-4 Peregrine Falcon Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
PE001	10/05/2018	VP4	Peregrine Falcon	1	17:52:00	20	10	10		20			PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying	Brief view of an adult Peregrine Falcon in flight heading off site in a north westerly direction.	TK
PE003	30/01/2019	VP2	Peregrine Falcon	1	13:25:00		38						WD4, (Conifer plantation) GA1, (Improved agricultural grassland)	Female	JK
PE002	26/02/2019	VP2	Peregrine Falcon	1	14:22:00	36			18	18			Travelling	male	JoeK

Map Legend

-  EIAR Site Boundary
-  Peregrine Flightlines



MAP TITLE: Non-core VP Survey Peregrine Flights		Figure 1.3	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Table 1-5 Herring Gull Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HG002	14/06/2018	VP5	Herring Gull	1	12:00:00	20			0	0	20	0	PB2, (Upland blanket bog) Flying	PB2 is possible GA1, being used for grazing of horses	CMc
HG001	15/06/2018	VP4	Herring Gull	1	11:49:00	30			0	0	30	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Flying	PB2 is possible GA1, being used for grazing of horses, was probably PB4 at some point, is adjacent to an area of PB4	CMc
HG003	11/03/2019	VP4	Herring Gull	3	10:21:00						48		PB3, (Lowland blanket bog) WD4, (Conifer plantation) Travelling		JK



Table 1- 7 Herring Gull Vantage Point Survey Data

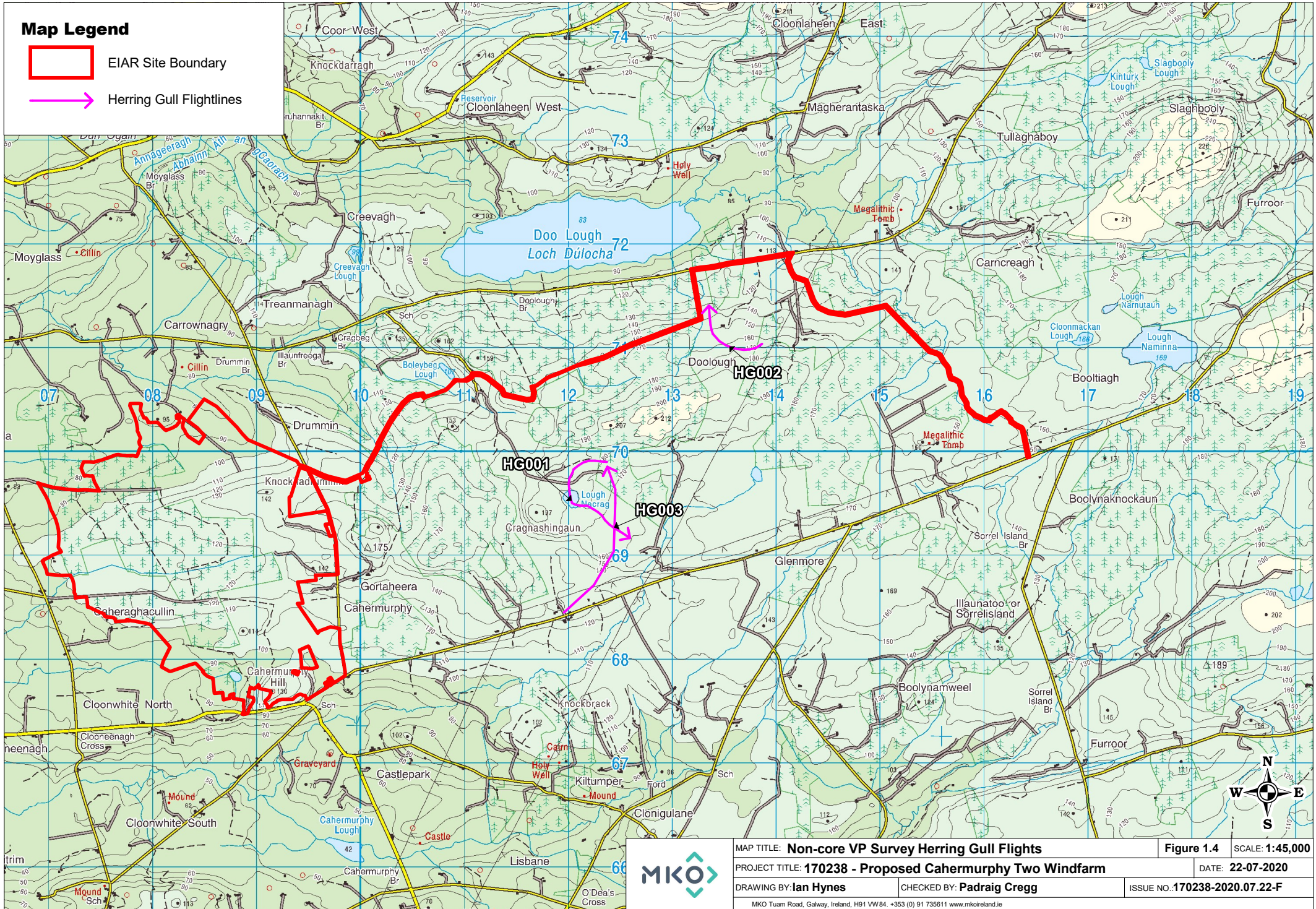
Site Iteration	Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
Cahermurphy East	N/A	12/05/2017	Raptor VP	RVP E	Herring Gull	1	14:00 Flew towards doo lough	DM
Cahermurphy East	N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	1	10:05 Flew over vp.	DM
Cahermurphy East	N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	1	11:10 flew over vp	DM
Cahermurphy East	N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	between 50-100	To and from Doo lough	DM
Cahermurphy East	N/A	09/06/2017	Raptor VP	RVP C	Herring Gull	between 50-100	To and from Doo lough	DM
Cahermurphy East	N/A	07/07/2017	Raptor Survey	RVP F	Herring Gull	between 50-100	To and from doo lough	DM
Cahermurphy East	N/A	07/07/2017	Raptor Survey	RVP F	Herring Gull	between 50-100	To and from doo lough	DM
Cahermurphy East	HG008	12/01/2019	Hen harrier roost	HHVP 7	Herring Gull	2	2 Herring Gulls observed in flight towards Doo Lough at approx. 30-40m height.	TK

Table 1-7: Herring Gull Incidental Records

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
N/A	12/05/2017	Raptor VP	RVP E	Herring Gull	1	14:00 Flew towards doo lough	DM
N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	1	10:05 Flew over vp.	DM
N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	1	11:10 flew over vp	DM
N/A	07/06/2017	Raptor VP	RVP E	Herring Gull	between 50-100	To and from Doo lough	DM
N/A	09/06/2017	Raptor VP	RVP C	Herring Gull	between 50-100	To and from Doo lough	DM
N/A	07/07/2017	Raptor Survey	RVP F	Herring Gull	between 50-100	To and from doo lough	DM
N/A	07/07/2017	Raptor Survey	RVP F	Herring Gull	between 50-100	To and from doo lough	DM
HG008	12/01/2019	Hen harrier roost	HHVP 7	Herring Gull	2	2 Herring Gulls observed in flight towards Doo Lough at approx. 30-40m height.	TK



Map Legend

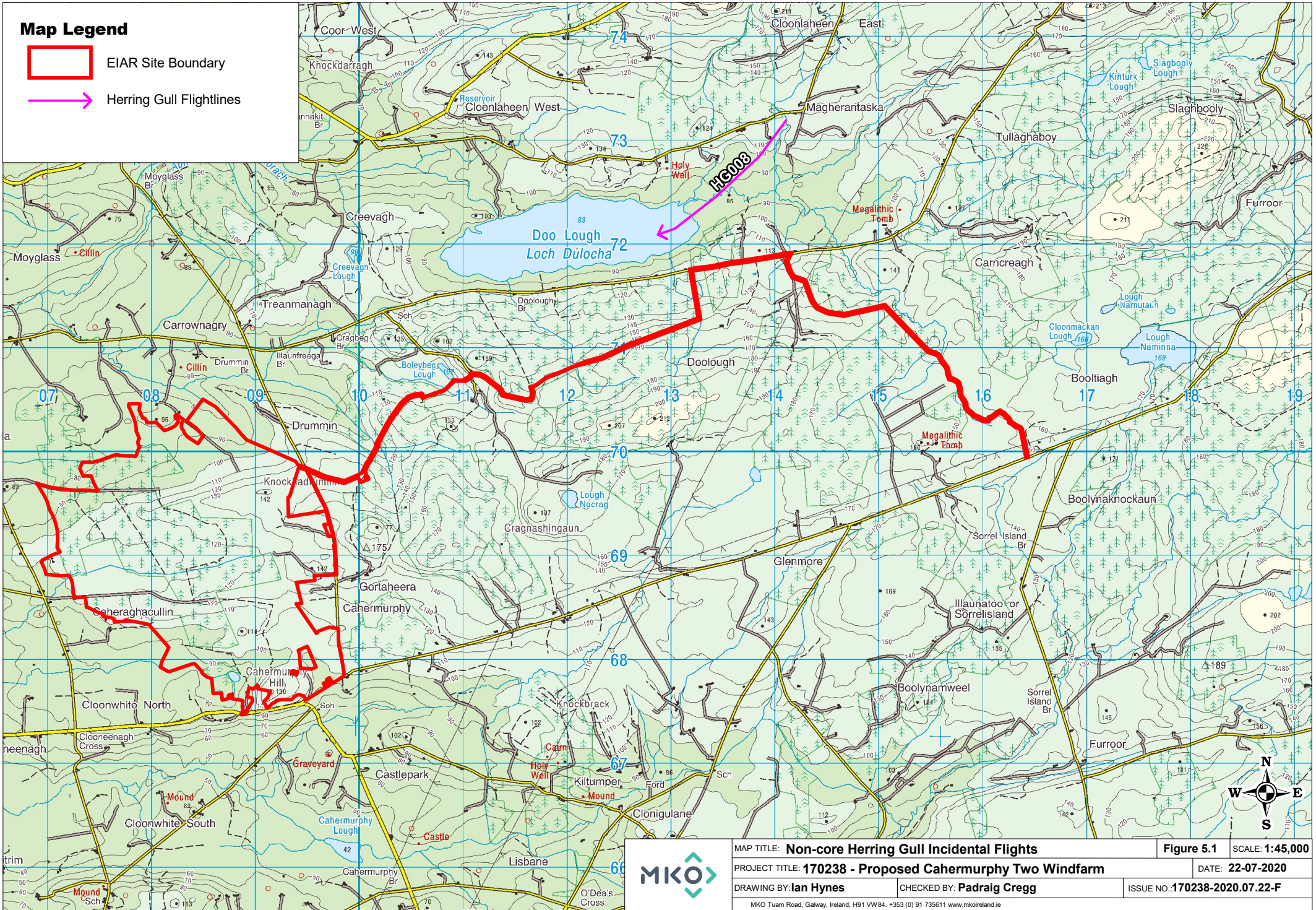
-  EIAR Site Boundary
-  Herring Gull Flightlines



MAP TITLE: Non-core VP Survey Herring Gull Flights		Figure 1.4	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
<small>MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 7356110 www.mkoireland.ie</small>			

Map Legend

-  EIAR Site Boundary
-  Herring Gull Flightlines



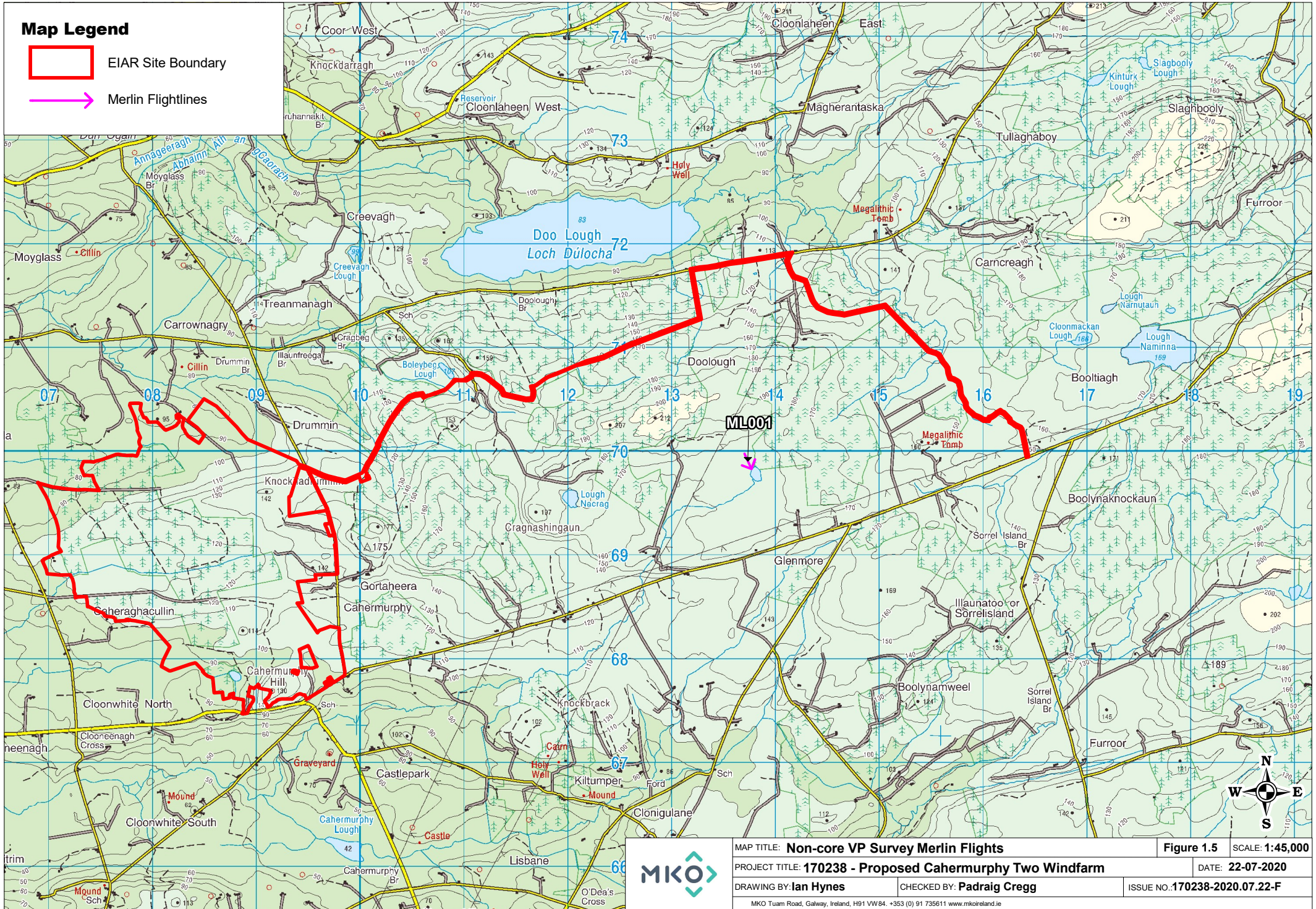
MAP TITLE: Non-core Herring Gull Incidental Flights		Figure 5.1	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Table 1-8: Merlin Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
ML001	21/04/2017	VP6	Merlin	1	12:32:00	3			3				PB4, (Cutover bog) Travelling	Female	JM

Map Legend

-  EIAR Site Boundary
-  Merlin Flightlines



MAP TITLE: Non-core VP Survey Merlin Flights		Figure 1.5	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Table 1-9 Kestrel Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K001	23/05/2017	VP4	Kestrel	1	12:12:00	25					25		PB2, (Upland blanket bog) Hovering then flew off		JM
K002	19/06/2017	VP4	Kestrel	1	13:12:00	45				45			WD4, (Conifer plantation) hovering and flying		JM
K003	17/08/2017	VP4	Kestrel	1	09:13:00	119			44	75	0	0	PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) Hunting, hovering and flying on		JH

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K004	17/08/2017	VP4	Kestrel	1	09:20:00	97			11	86	0	0	PB2, (Upland blanket bog) Hunting, hovering and flying on		JH
K005	17/08/2017	VP4	Kestrel	1	09:53:00	156			28	128	0	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling		JH
K006	17/08/2017	VP4	Kestrel	1	11:07:00	161			0	161	0	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting, hovering and flying on		JH

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K007	17/08/2017	VP4	Kestrel	1	11:36:00	46			15	31	0	0	PB2, (Upland blanket bog) Hunting, hovering and flying on		JH
K008	02/11/2017	VP4	Kestrel	1	16:05:00	122					122		PB4, (Cutover bog) WD4, (Conifer plantation) Hunting		JK
K009	27/02/2018	VP5	Kestrel	1	11:30:00	30				30			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hovering and flying on	Adult Female	TK

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0010	21/04/2018	VP4	Kestrel	1	15:26:00	180	180	0	40	15	125		PB2, (Upland blanket bog) Hunting, up to 80 metres		P.Troake
K0011	28/04/2018	VP5	Kestrel	1	15:33:00	110	110	0		10	100		WD4, (Conifer plantation) Hunting	Height mostly 30-50m	P.Troake
K0012	28/04/2018	VP5	Kestrel	1	15:48:00	510	510	0	15	15	480		PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting, then landed on pylon	Height mostly 40-125m	P.Troake

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0013	10/05/2018	VP4	Kestrel	1	16:22:00	180	180		30	150			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	adult Male Kestrel hunting over area of blanket bog, hovering and dropping to lower height level before flying off.	TK
K0014	17/05/2018	VP5	Kestrel	1	21:12:00	120	120						PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male Kestrel hovering over open bog before flying west over forestry.	TK
K0015	15/06/2018	VP4	Kestrel	1	13:14:00	14			0	0	14	0	PB4, (Cutover bog) Flying		CMc

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0016	07/07/2018	VP4	Kestrel	1	10:13:00	"150"	"150"		"40"	"110"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel observed hunting, hovering and flying on.	Tk
K0017	16/08/2018	VP4	Kestrel	1	11:48:00	360			0	240	120	0	PB4, (Cutover bog) WD4, (Conifer plantation) Hunting then perched on a conifer		Cmc

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0018	25/09/2018	VP5	Kestrel	1	10:05:00	7	5	2		7			PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying		CMc
K0025	18/10/2018	VP3	Kestrel	1	16:05:00	49				49			WD4, (Conifer plantation) PB3, (Lowland blanket bog) Hunting	Adult Male	JK
K0019	02/12/2018	VP5	Kestrel	1	08:55:00	180	180		30	120	30		Hunting		TK
K0020	02/12/2018	VP5	Kestrel	1	09:43:00	140	140			140			Hunting		TK
K0021	14/12/2018	VP4	Kestrel	1	13:55:00	30	0	30			30		In flight	Male Kestrel observed in flight	TK

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
K0025	11/01/2019	VP3	Kestrel	1	11:20:00		181						WD4, (Conifer plantation) PB3, (Lowland blanket bog)	Adult Male	JK
K0026	11/01/2019	VP3	Kestrel	1	13:25:00		102						WD4, (Conifer plantation) PB3, (Lowland blanket bog)	Adult Male	JK
K0022	20/03/2019	VP5	Kestrel	1	09:55:00					102			Hunting	Male	JK
K0023	20/03/2019	VP5	Kestrel	1	11:20:00					75			Hunting	Male	JK

Table 1-10 Kestrel Breeding Raptor Survey Data

Final Ref No.	Date	HHVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
K001	09/06/2017	RVPF	Kestrel	1	14:50:00		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland) Travelling		DM
K002	06/07/2017	RVP A	Kestrel	1	12:30:00			Male hunting	DM
K003	07/04/2018		Kestrel	1	12:45:00		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting	Male Kestrel observed hunting, hovering and flying on.	TK
K004	05/05/2018	HHVP2	Kestrel	1	11:32:00	40	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female Kestrel seen hovering briefly before flying on.	TK

Final Ref No.	Date	HHVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
K005	27/06/2018		Kestrel	1	11:39:00	120	WD4, (Conifer plantation) PB2, (Upland blanket bog) GA1, (Improved agricultural grassland) Flying	Bird was carrying a prey item	CMc
K006	05/07/2018	Area 2 VP 1	Kestrel	1	12:23:00	"40"	WD4, (Conifer plantation) Hunting	Male Kestrel observed hovering before flying off	TK

Table 1-11 Kestrel Breeding Walkover Survey Records

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
K001	09/05/2017			Kestrel	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation), flying male	male	JM
K002	21/06/2017			Kestrel	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation), flying		JM
K003	26/07/2017			Kestrel	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation), male	hunting and hovering	JM
K004	21/06/2018	A	14:44:00	Kestrel	2		PB4, (Cutover bog) GA1, (Improved agricultural grassland) WD4, (Conifer plantation),	male and female spotted flying over and into forestry north of VP5	CM
K005	14/07/2018			Kestrel	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation), perched on top of tree	Male Kestrel perched on conifer tree-top	TK

Table 1-12 Kestrel Winter Walkover Survey Data

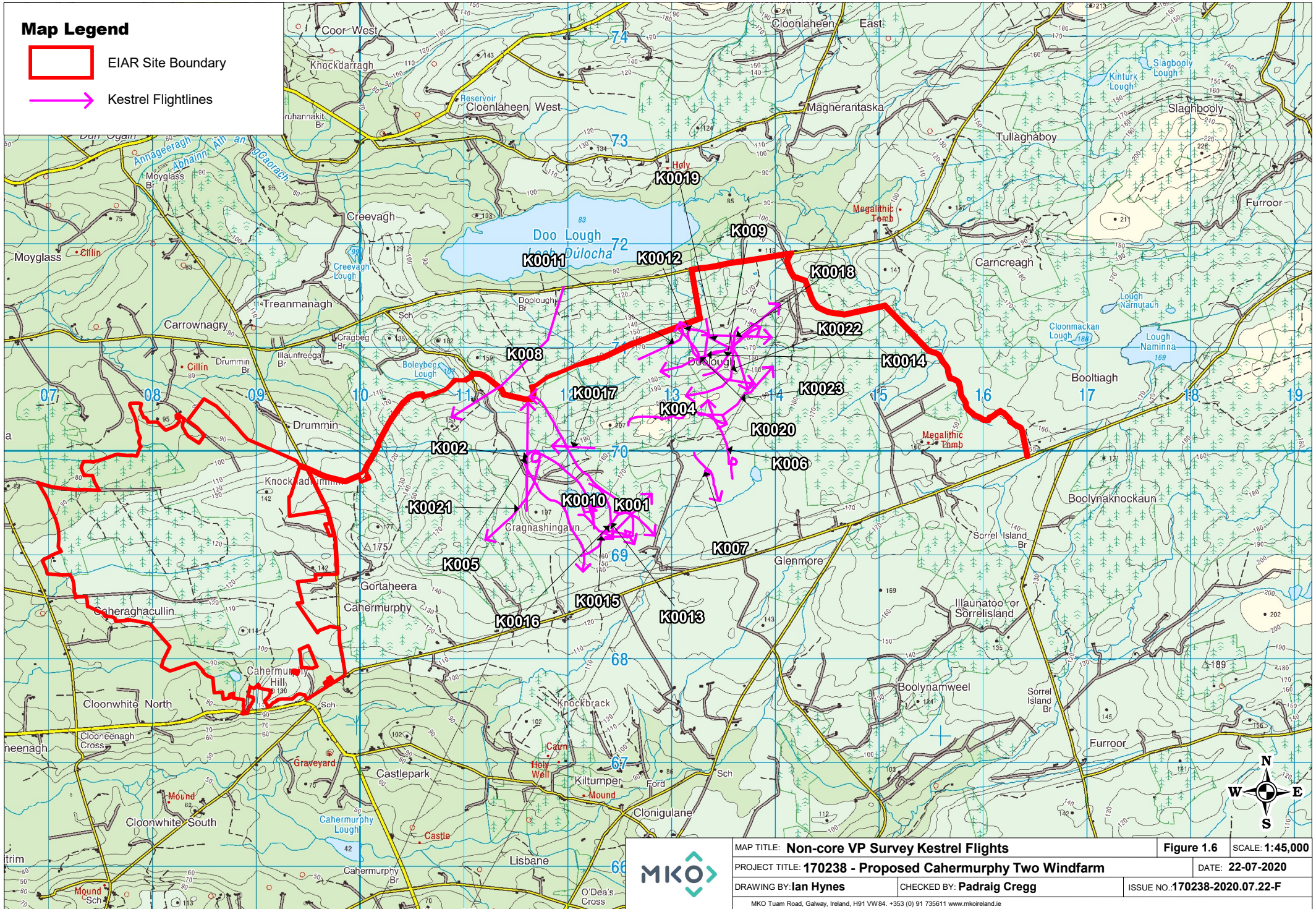
Final Ref No.	Survey Date	Trans No.	Species	Number of birds	Habitat and Activity	Comments	Surveyor
K001	10/10/2017		Kestrel	1	travelling	Female	JK
K002	12/10/2017		Kestrel	1	hunting	male	JK
K003	12/10/2017		Kestrel	1	hunting	female	JK
K004	05/03/2019		Kestrel	1	PB3, (Lowland blanket bog), hunting	Female	JK

Table 1-13 Kestrel Incidental Survey Data

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
K001	05/12/2017	HH Roost survey	HHVP7	Kestrel	1	Male hunting on site	JK
K002	14/06/2018	VP Survey	North of VP5	Kestrel	1	K flew behind VP during break, >25m for 10 secs over WD4	CMc
K003	04/12/2018	HH Roost survey	HHVP9	Kestrel	1	14:32:00 Male Kestrel observed hovering and flying on. K1	TK
K004	13/03/2019	HHVP	HHVP9	Kestrel	1	female hunting	Joe K

Map Legend

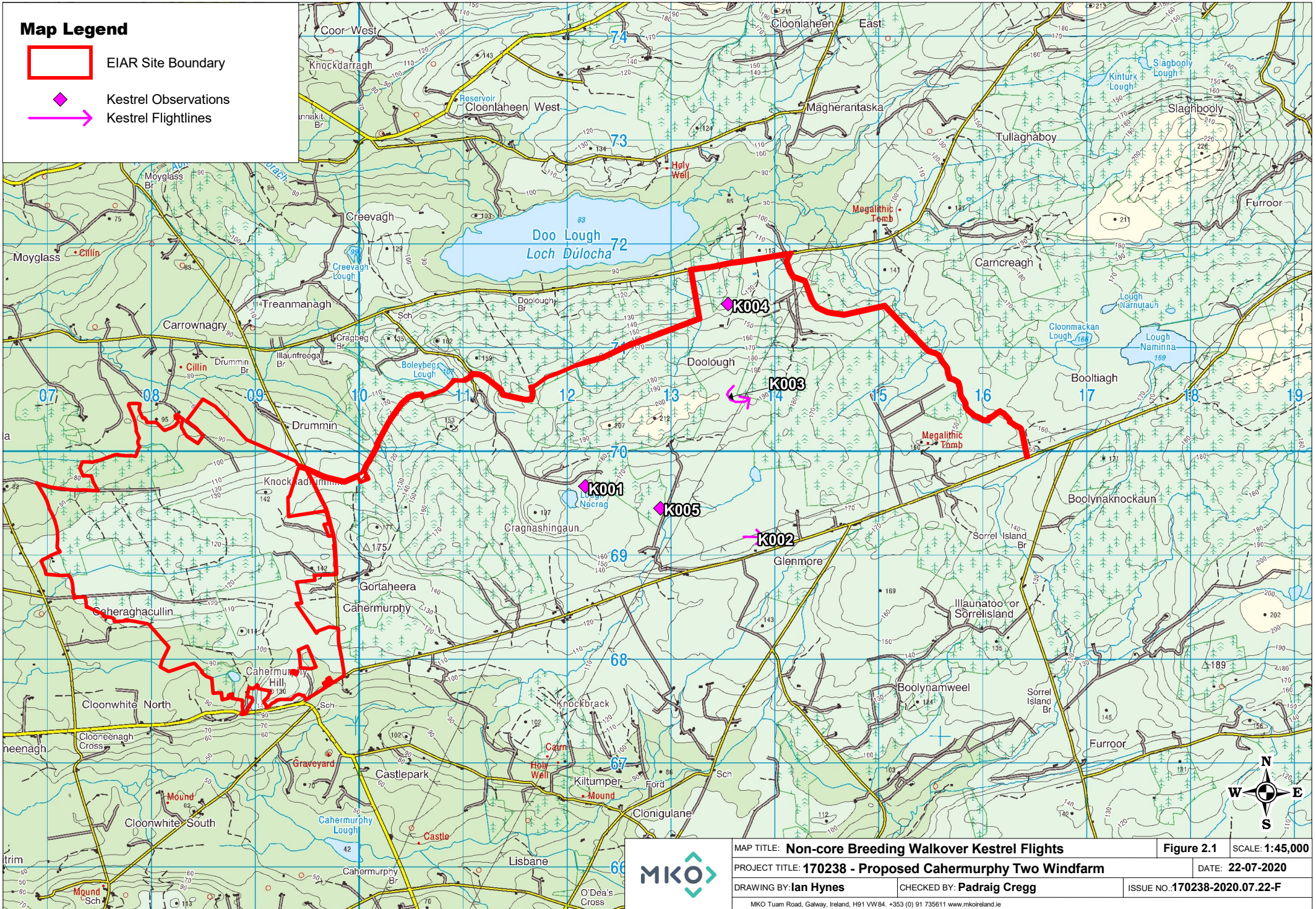
- EIAR Site Boundary
- Kestrel Flightlines



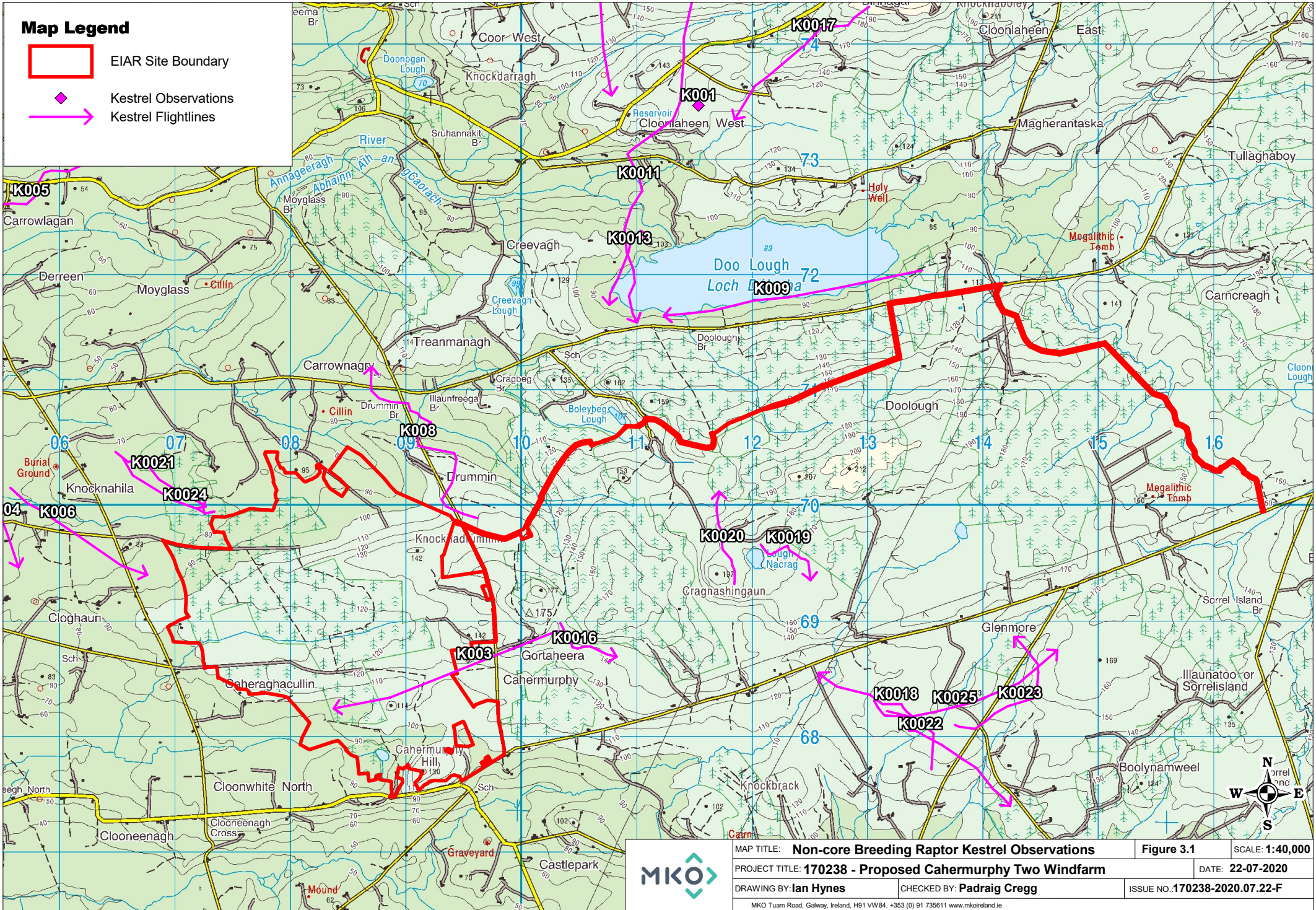
MAP TITLE: Non-core VP Survey Kestrel Flights		Figure 1.6	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkofireland.ie			

Map Legend

-  EIAR Site Boundary
-  Kestrel Observations
-  Kestrel Flightlines

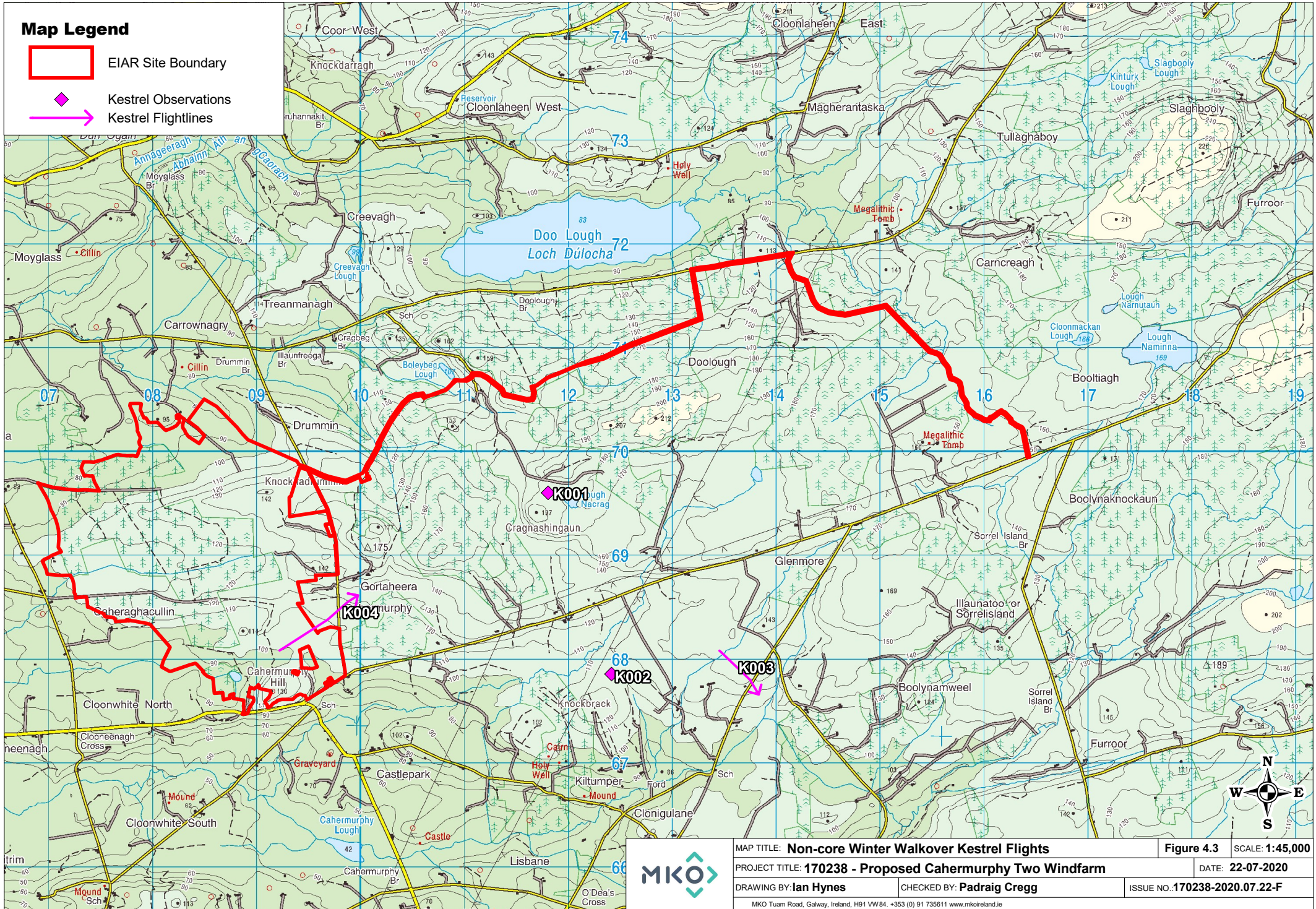


MAP TITLE: Non-core Breeding Walkover Kestrel Flights		Figure 2.1	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie			



Map Legend

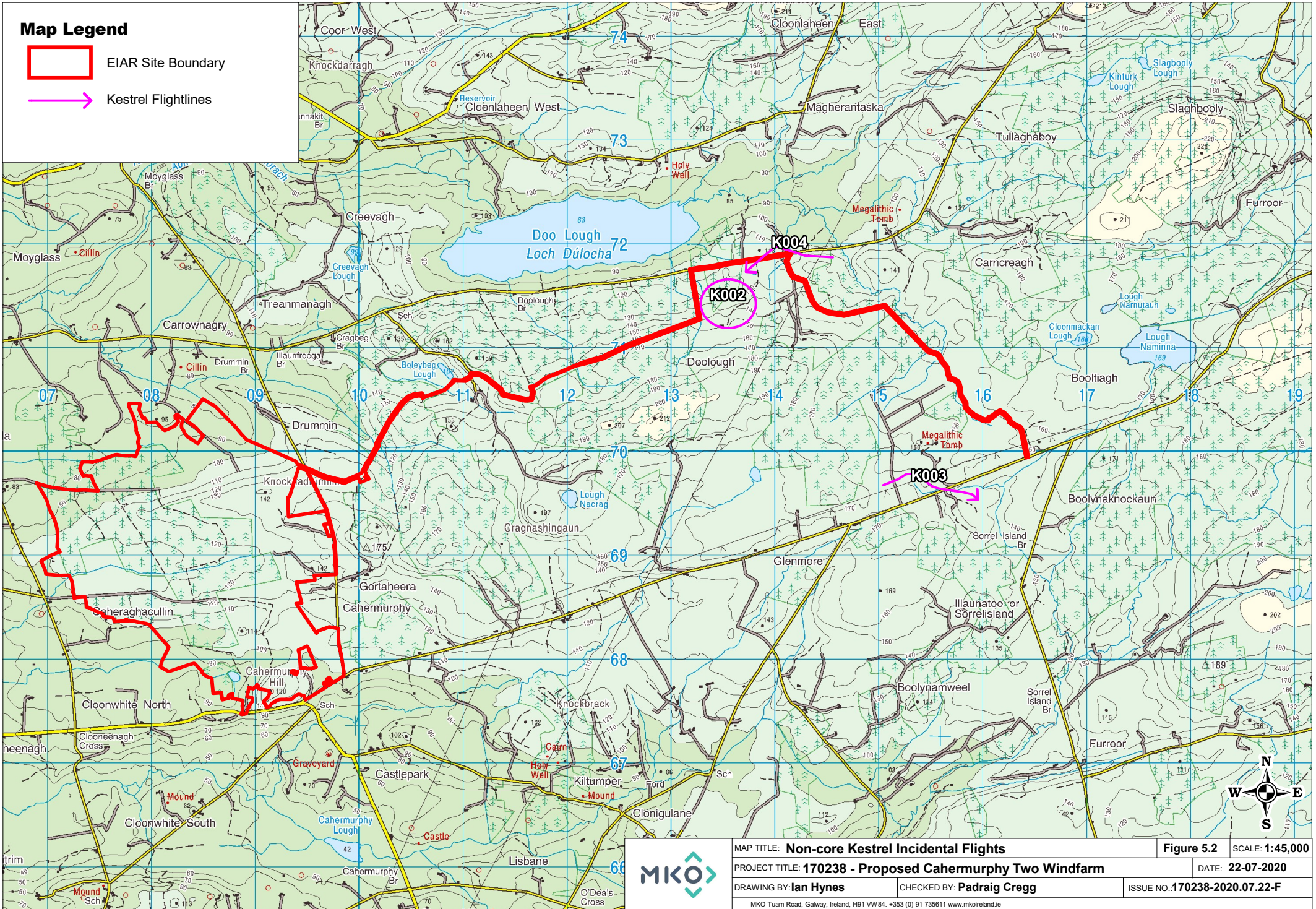
- EIAR Site Boundary
- ◆ Kestrel Observations
- ➔ Kestrel Flightlines



MAP TITLE: Non-core Winter Walkover Kestrel Flights		Figure 4.3	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Map Legend

-  EIAR Site Boundary
-  Kestrel Flightlines



MAP TITLE: Non-core Kestrel Incidental Flights		Figure 5.2	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Table 1-14 Sparrowhawk Vantage Point Survey Records

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SH001	12/07/2017	VP6	Sparrowhawk	1	12:15:00	24			24				WD4, (Conifer plantation) PB2, (Upland blanket bog) Chased by two swallows		JM
SH002	11/10/2017	VP6	Sparrowhawk	1	11:15:00	55				55			WD4, (Conifer plantation) Hunting	Adult Male	JK
SH003	11/10/2017	VP6	Sparrowhawk	1	12:20:00	82				82			WD4, (Conifer plantation) Travelling	Male	JK
SH004	01/11/2017	VP6	Sparrowhawk	1	16:07:00	38				38			WD4, (Conifer plantation) Hunting	Adult Female	JK
SH006	11/01/2019	VP3	Sparrowhawk	1	15:10:00	57							WD4, (Conifer plantation) PB3, (Lowland	Adult Male	JK



Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
													blanket bog)		
SH005	11/03/2019	VP4	Sparrowhawk	1	11:33:00					35			PB3, (Lowland blanket bog) WD4, (Conifer plantation) Hunting		JK



Table 1-15 Sparrowhawk Breeding Raptor Survey Data

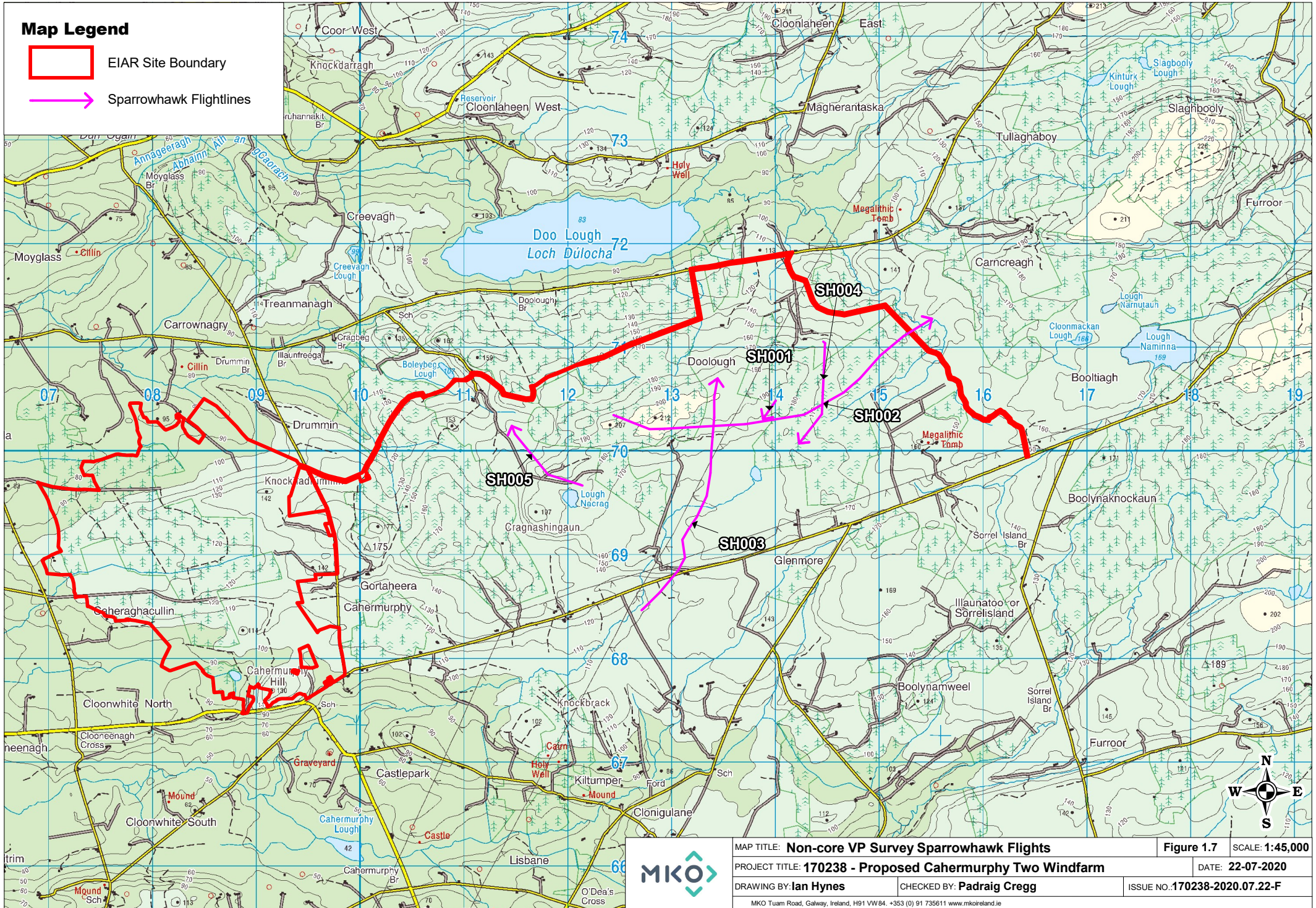
Final Ref No.	Date	HHVP	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
SH001	24/04/2017		Sparrowhawk	1			flying	Male	JM
SH002	08/06/2017	RVPB	Sparrowhawk	1	14:20:00		PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting	Carrying Food	DM
SH003	09/06/2017	RVPF	Sparrowhawk	1	13:50:00		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland) hunting	Female carrying food	DM
SH004	07/07/2017	RVP F	Sparrowhawk	1	16:15:00			Seen briefly hunting over hedges	DM
SH005	27/06/2018		Sparrowhawk	1	13:45:00	240	WD4, (Conifer plantation) PB4, (Cutover bog) Mobbed	Mobbed by 3SL	CMc

Table 1-16 Sparrowhawk Incidental Records

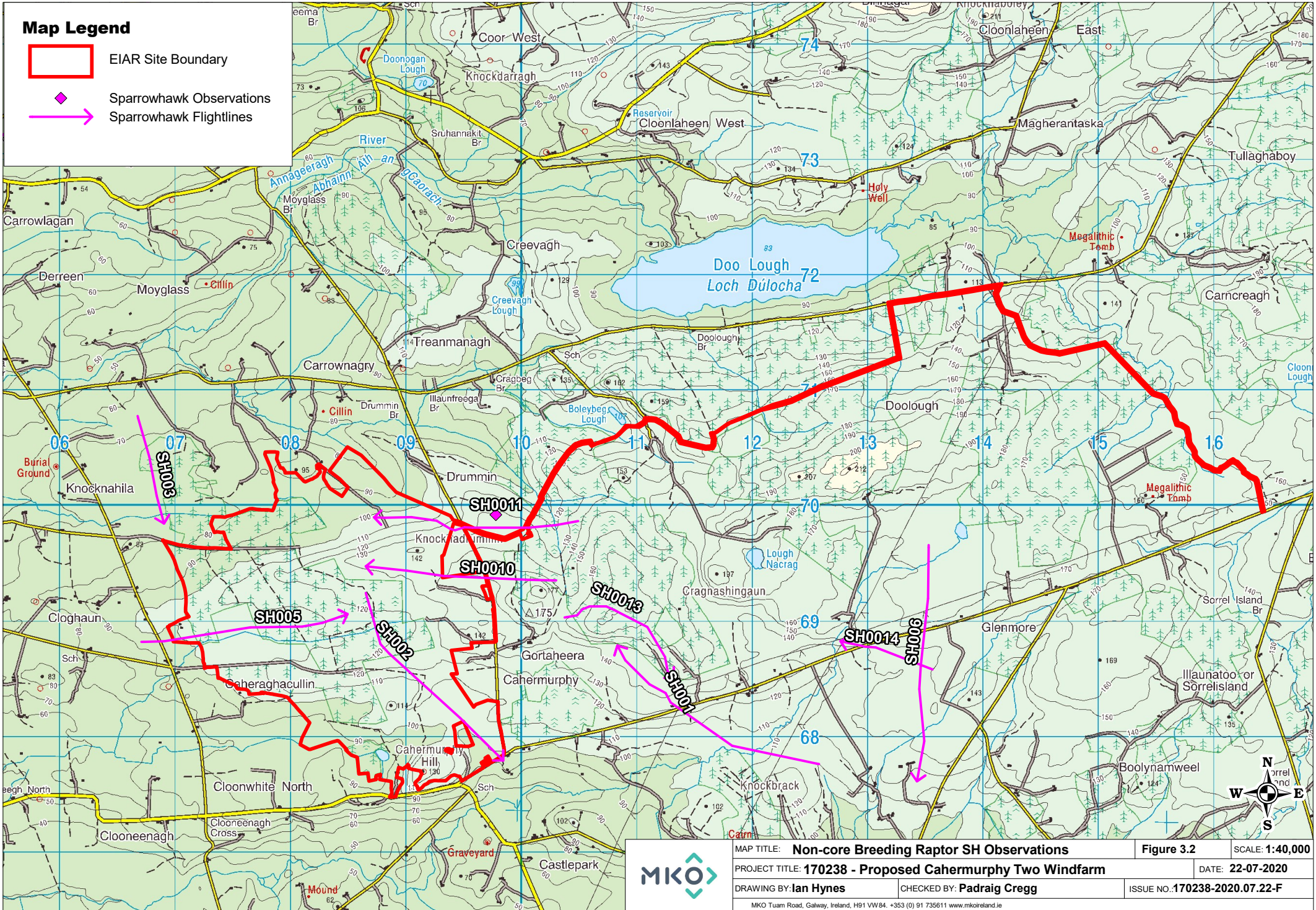
Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
N/A	05/12/2017	HH Roost survey	HHVP7	sparrowhawk	1	female hunting on site	JK
N/A	08/12/2017	HH Roost survey	HHVP9	sparrowhawk	1	15:55 female hunting on site	JK
SH003	12/01/2019	Hen harrier roost	HHVP 7	sparrowhawk	1	Sparrowhawk observed briefly in low flight over bog.	TK
SH004	08/03/2019	HHVP	HHVP8	Sparrowhawk	1	male hunting	Joe K

Map Legend



-  EIAR Site Boundary
-  Sparrowhawk Flightlines

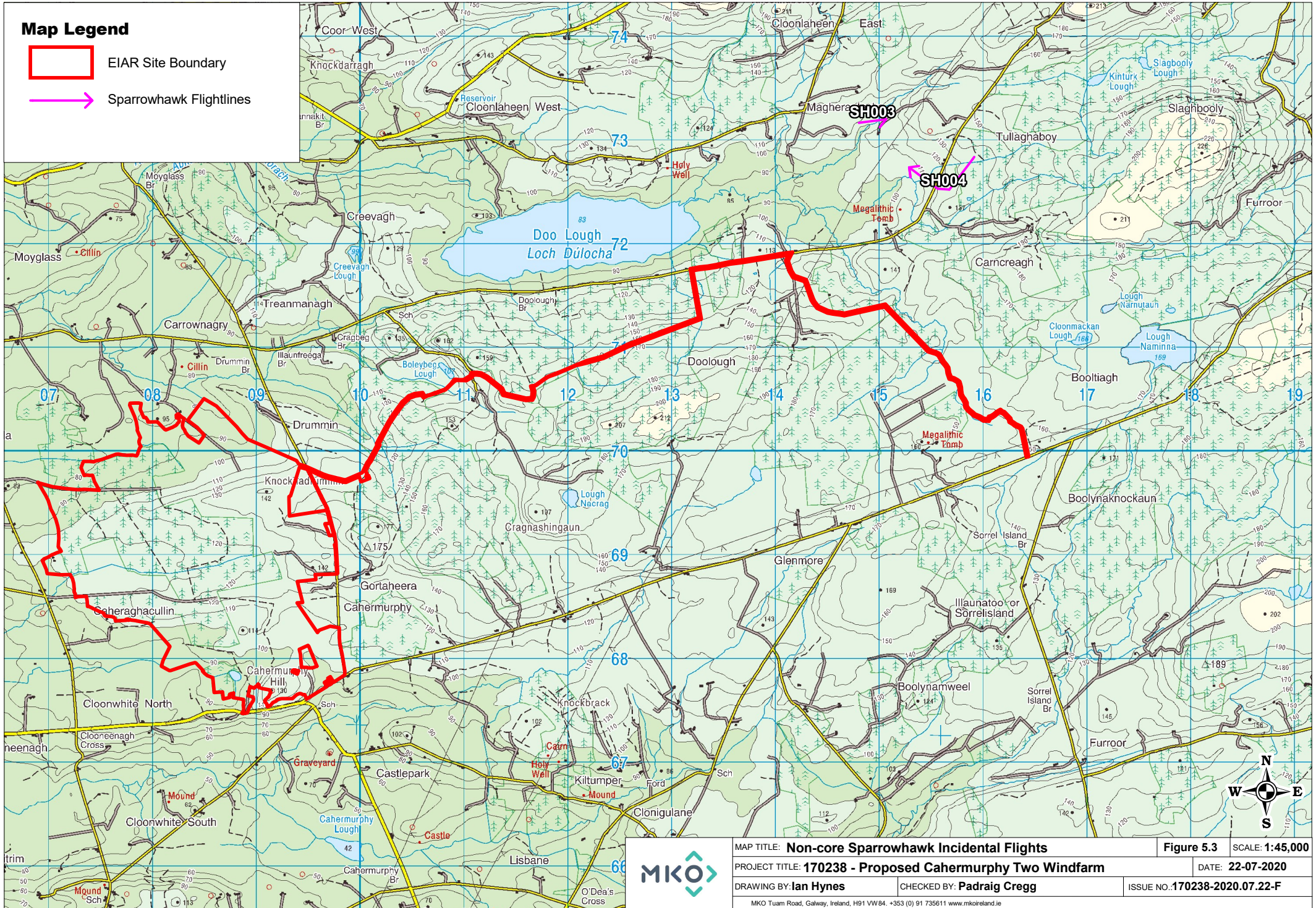


MAP TITLE: Non-core VP Survey Sparrowhawk Flights	Figure 1.7	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm	DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F
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Map Legend

-  EIAR Site Boundary
-  Sparrowhawk Flightlines



MAP TITLE: Non-core Sparrowhawk Incidental Flights		Figure 5.3	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
<small>MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 7356110 www.mkoireland.ie</small>			

Table 1-17 Cormorant Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
CA001	28/04/2018	VP5	Cormorant	1	10:43:00	120	35	85			35		PB2, (Upland blanket bog) WD4, (Conifer plantation) Descended towards Doo Lough	Height c.150m	P.Troak



Table 1-18 Cormorant Winter Walkover Data

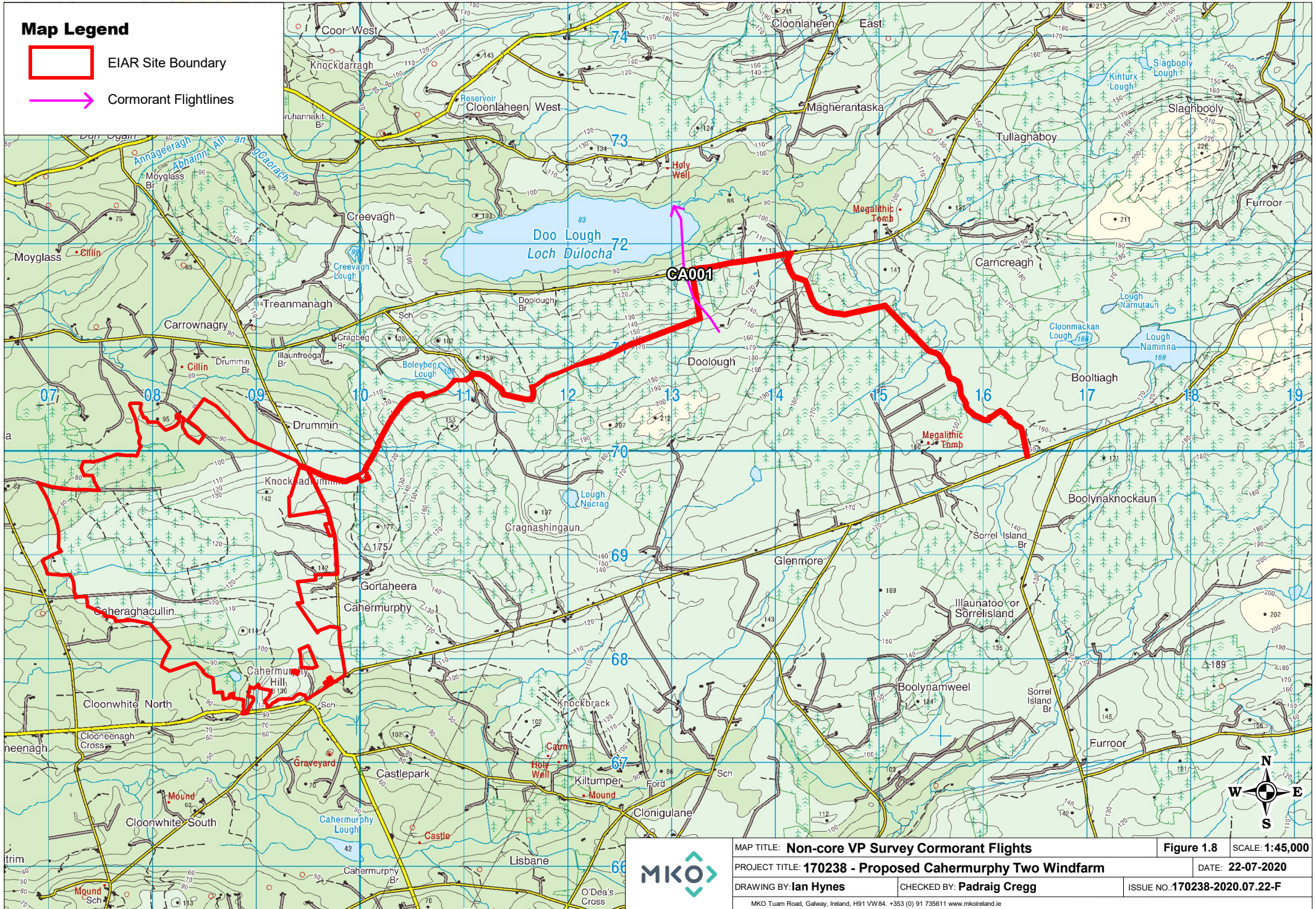
Final Ref No.	Survey Date	Trans No.	Species	Number of birds	Habitat and Activity	Comments	Surveyor
CA001	10/10/2017		Cormorant	2	travelling		JK

Table 1-19 Cormorant Incidental Data

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
CA001	05/07/2017	Raptor Survey	RVP E	Cormorant	1	15:40 Circling over lough kitunk	DM

Map Legend

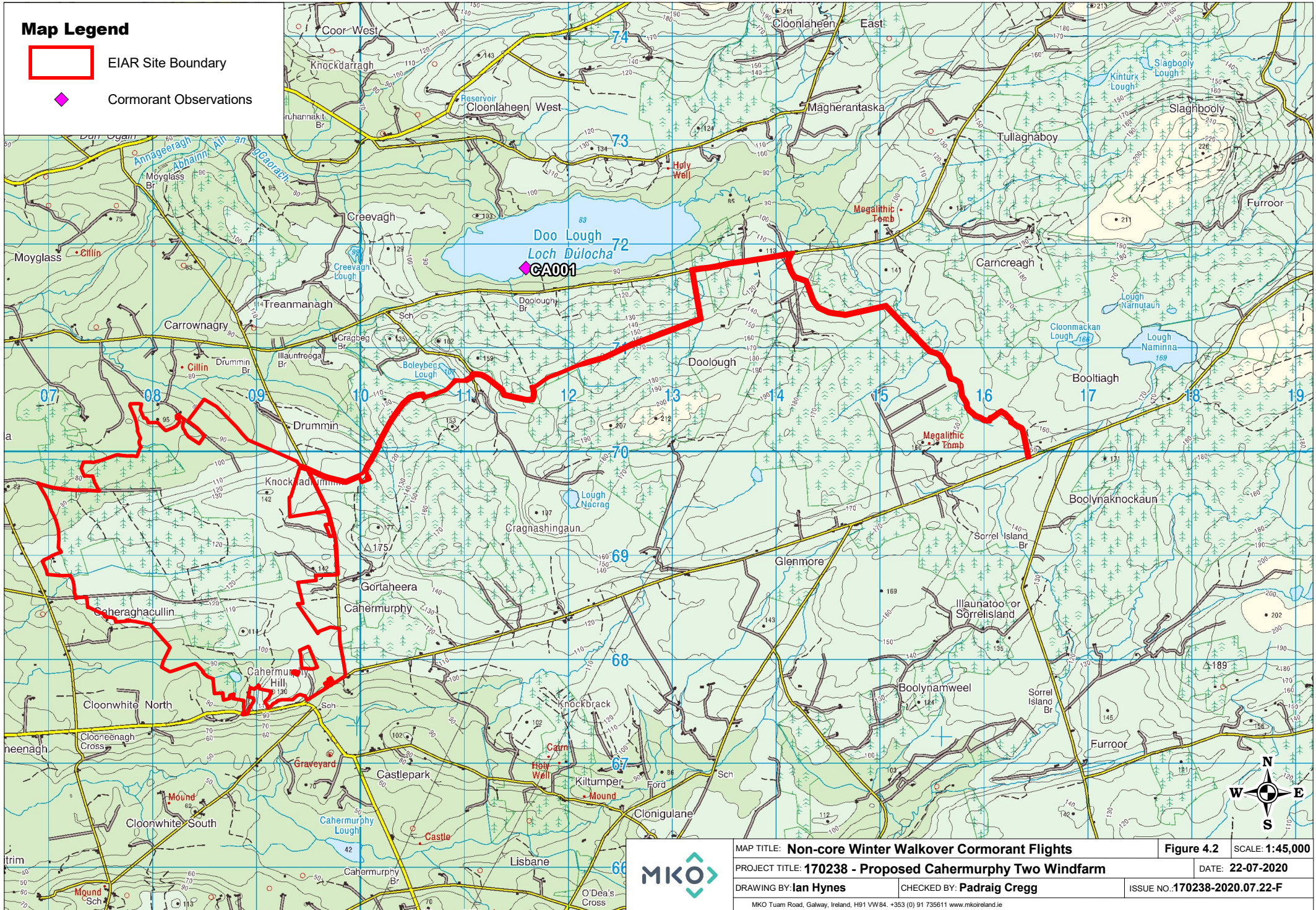
-  EIAR Site Boundary
-  Cormorant Flightlines



MAP TITLE: Non-core VP Survey Cormorant Flights		Figure 1.8	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Map Legend

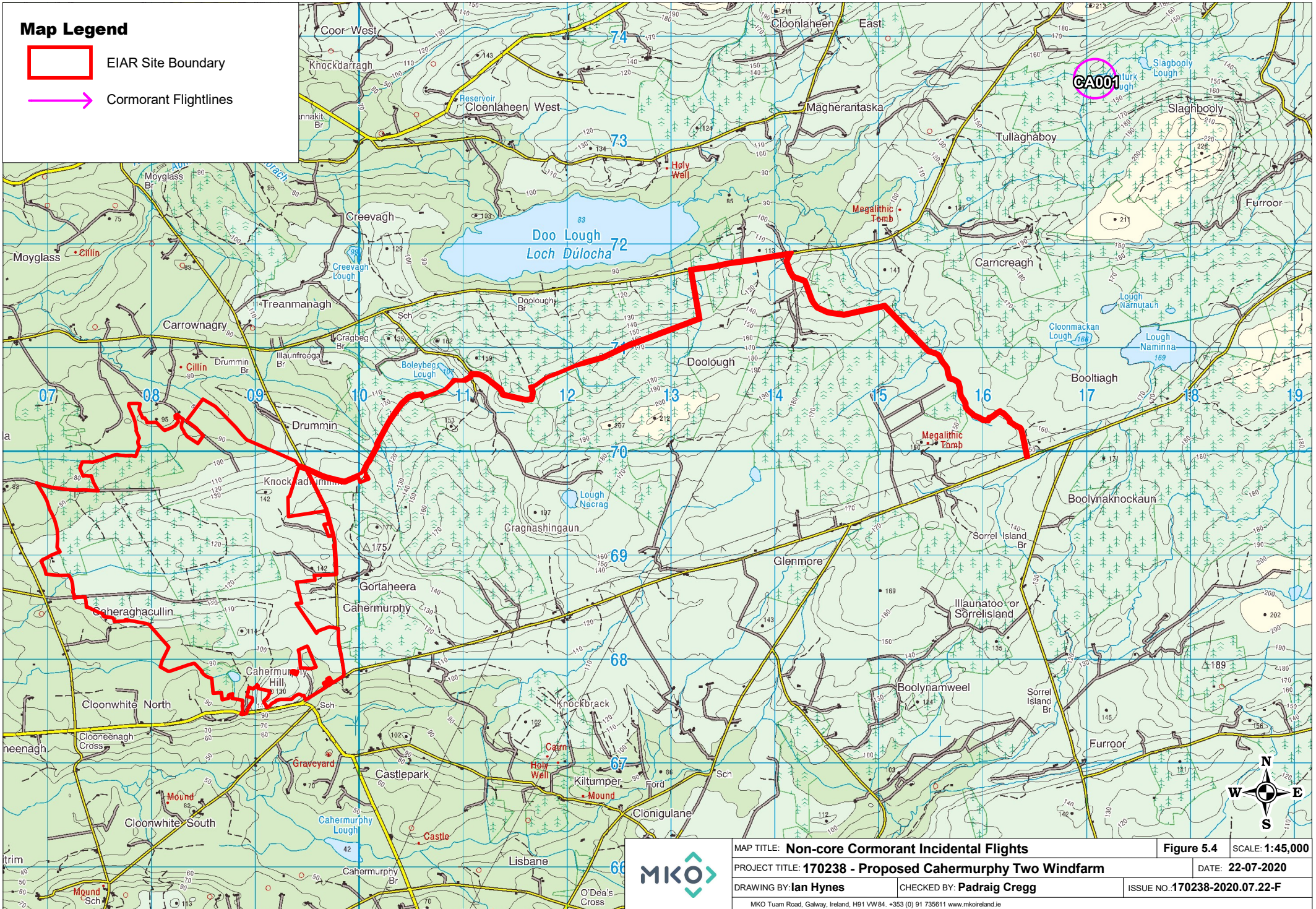
- EIAR Site Boundary
- ◆ Cormorant Observations



MAP TITLE: Non-core Winter Walkover Cormorant Flights		Figure 4.2	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Map Legend

-  EIAR Site Boundary
-  Cormorant Flightlines



MAP TITLE: Non-core Cormorant Incidental Flights		Figure 5.4	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie			

Table 1-20 Snipe Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SN001	17/08/2017	VP4	Common Snipe	1	08:06:00	16			6	10	0	0	PB2, (Upland blanket bog) Flying and Calling		JH
SN002	22/08/2017	VP5	Common Snipe	3	08:23:00	56			21	35	0	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling		JH
SN003	01/11/2017	VP6	Common Snipe	3	15:35:00	55					55		PB4, (Cutover bog) WD4, (Conifer plantation) Travelling		JK
SN004	25/09/2018	VP5	Common Snipe	2	10:00:00	10	10			10			PB2, (Upland blanket bog) Flying and calling		CMc

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
SN005	09/10/2018	VP5	Common Snipe	1	18:06:00	5	6			6			PB2, (Upland blanket bog) Flying		CMc
SN006	16/01/2019	VP5	Common Snipe	2	17:25:00	30	30				30		PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying	2 Snipe observed in flight.	TK

Table 1-21 Snipe Breeding Walkover Survey Records

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	Comments	Surveyor
SN001	13/04/2018			Common Snipe	2		Flushed from ground	upland blanket bog	TK
SN002	04/05/2018			Common Snipe	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)	Flushed on ground	TK

Table 1-22 Snipe Winter Walkover Survey Data

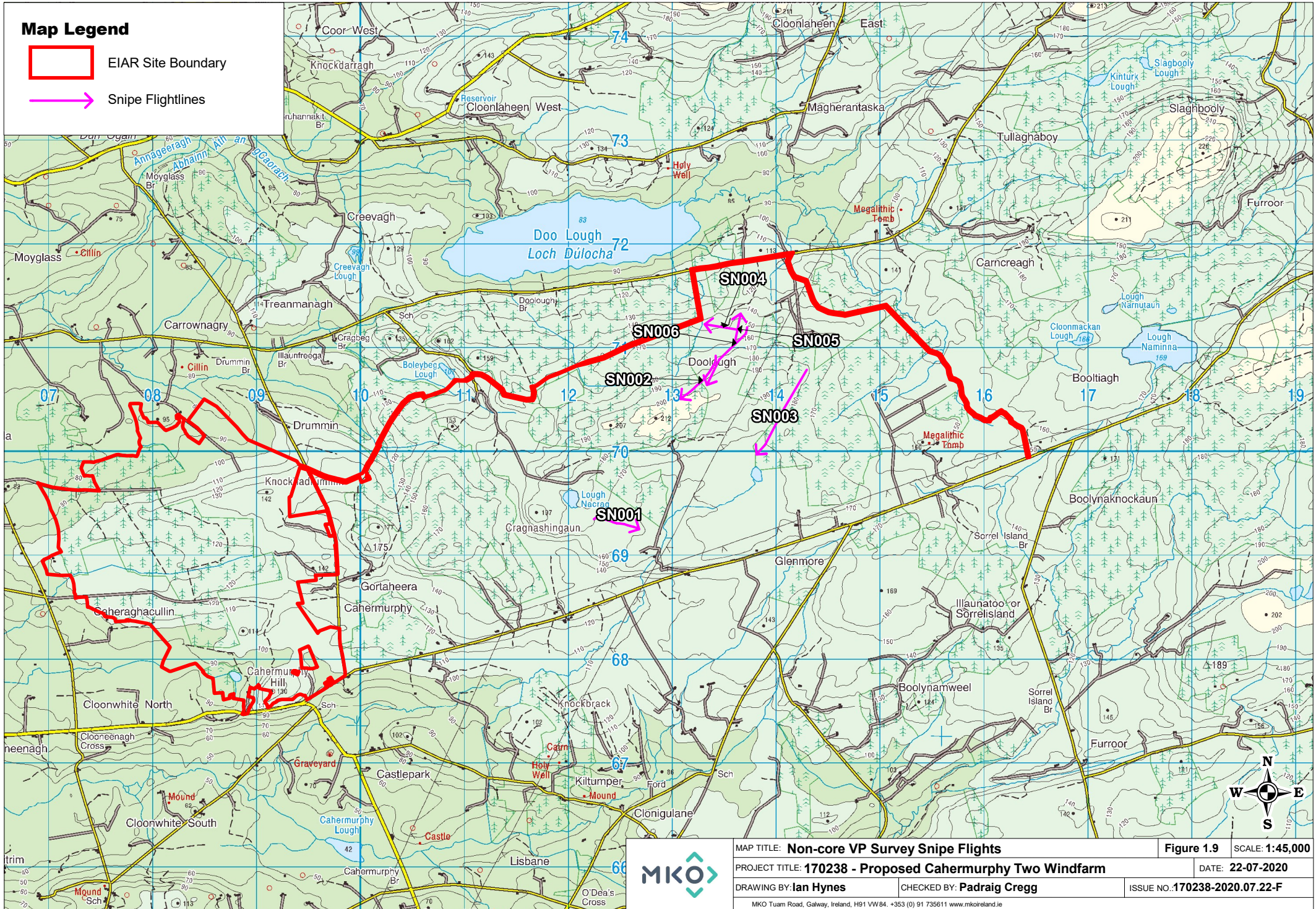
Final Ref No.	Survey Date	Trans No.	Species	Number of birds	Habitat and Activity	Comments	Surveyor
SN001	11/12/2017		Common Snipe	3	WD4, (Conifer plantation) PB4, (Cutover bog)	flushed from cover	JK
SN002	17/10/2018		Common Snipe	1	PB4, (Cutover bog) WD4, (Conifer plantation) BL3, (Buildings and artificial surfaces)	flushed	CMc
SN003	04/12/2018	3	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN004	04/12/2018	4	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN005	04/12/2018	8	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN006	04/12/2018	9	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN007	04/12/2018	9	Common Snipe	3	PB2, (upland blanket bog)	flushed from ground	TK
SN008	20/01/2019	3	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN009	20/01/2019	7	Common Snipe	2	PB2, (upland blanket bog)	flushed from ground	TK
SN0010	20/01/2019	8	Common Snipe	1	PB2, (upland blanket bog)	flushed from ground	TK
SN0011	05/03/2019		Common Snipe	5	PB3, (Lowland blanket bog), flushed from cover		JK

Table 1-23 Snipe Incidental Data

Ref No.	Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
SN001	08/06/2017	Raptor VP	RVP A	Snipe	1	displaying and calling at RVP 13:20	DM
SN002	06/07/2017	Raptor Survey	RVP B	Snipe	1	Calling	DM
SN003	16/10/2018	VP Survey	Cahermurphy Extension VP4	Snipe	1	Flushed as observer approached VP	CMc
N/A	11/02/2019	VP Survey	VP4	Snipe	7	Flushed on the way in.	JoeK
SN005	11/03/2019	VP Survey	VP4	Snipe	3	flushed on way in	Joe K

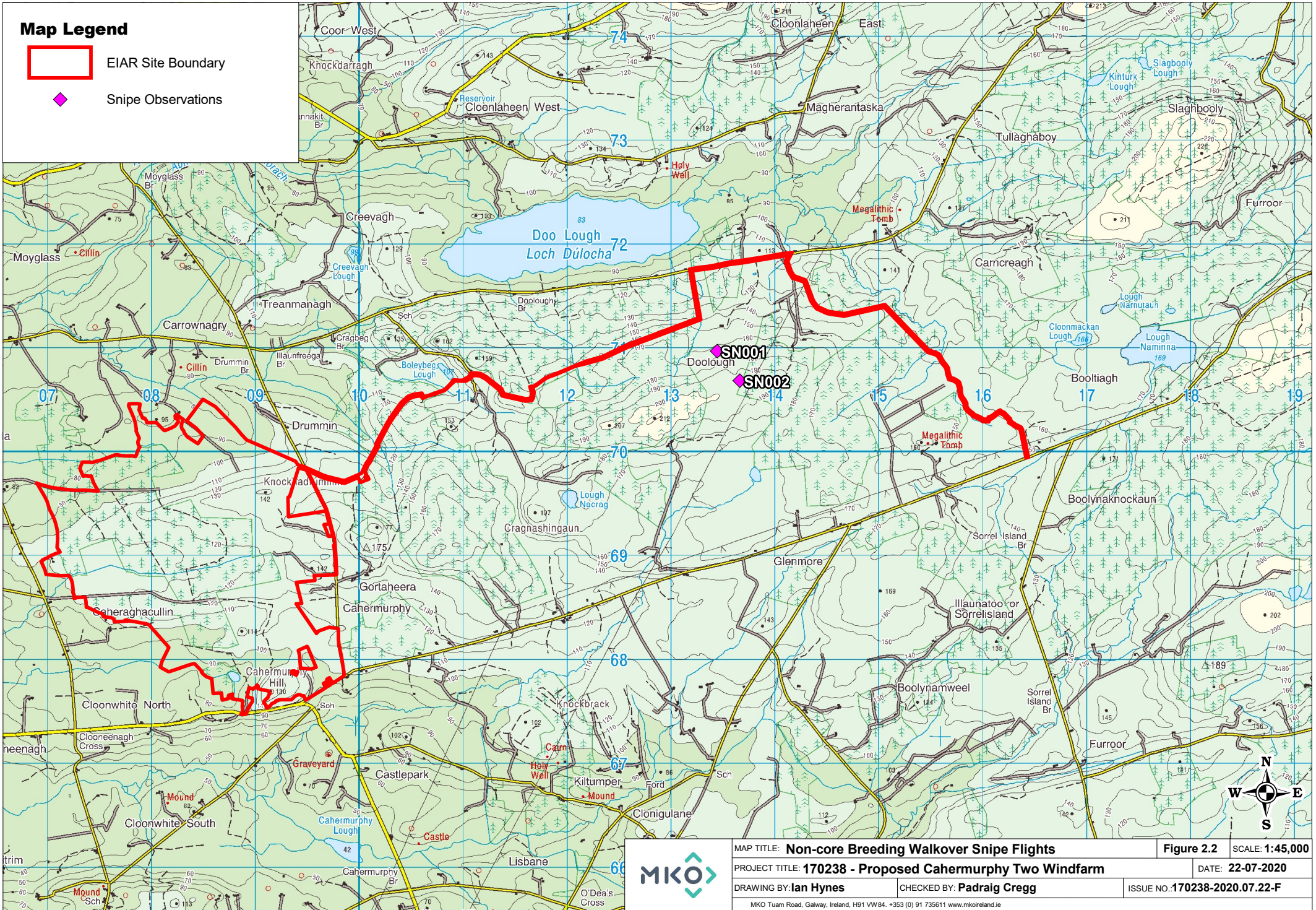
Map Legend

- EIAR Site Boundary
- ➔ Snipe Flightlines



Map Legend

- EIAR Site Boundary
- ◆ Snipe Observations



MAP TITLE: **Non-core Breeding Walkover Snipe Flights**

Figure 2.2 SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**




CHECKED BY: **Padraig Cregg**

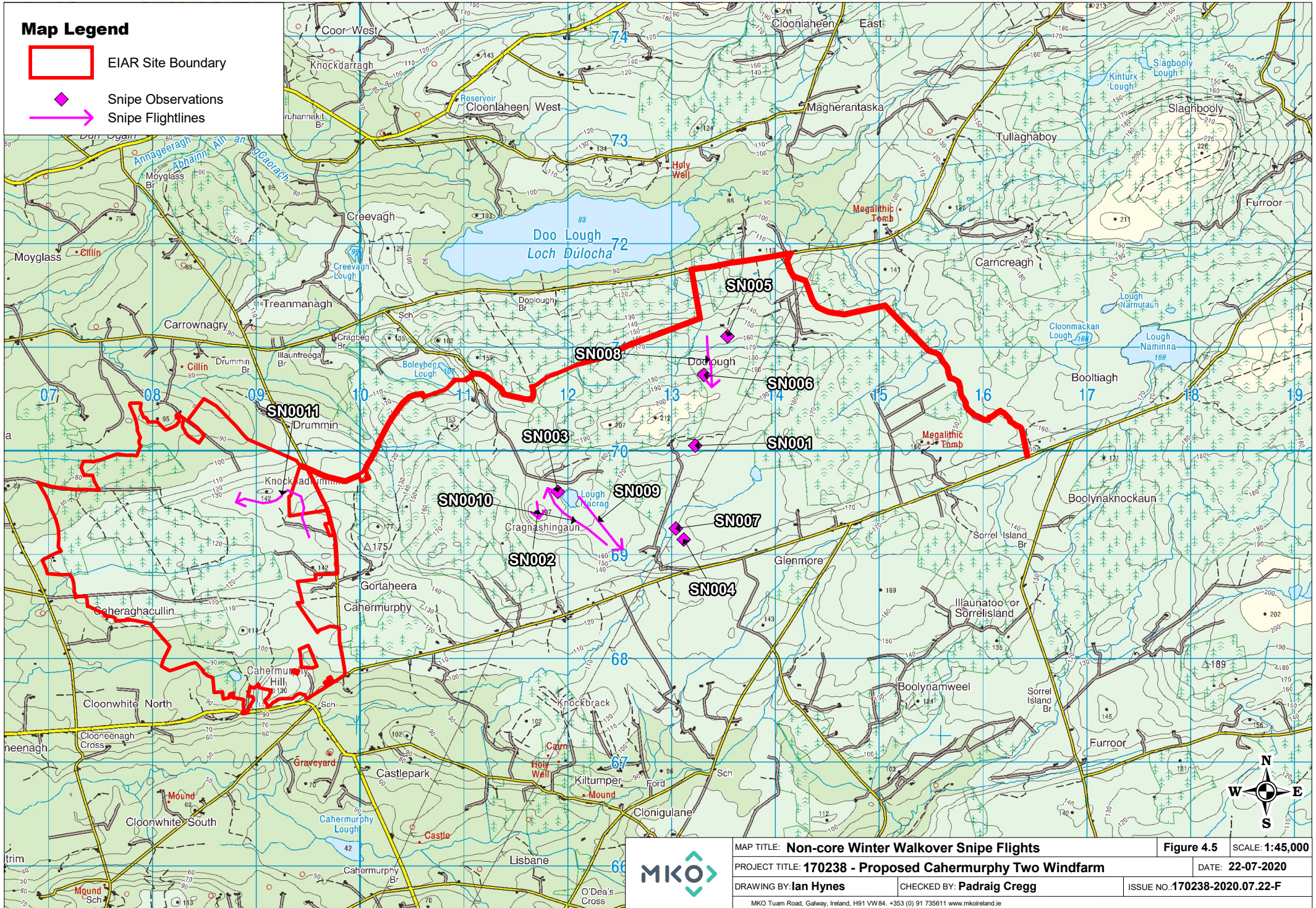
ISSUE NO.: **170238-2020.07.22-F**

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Map Legend

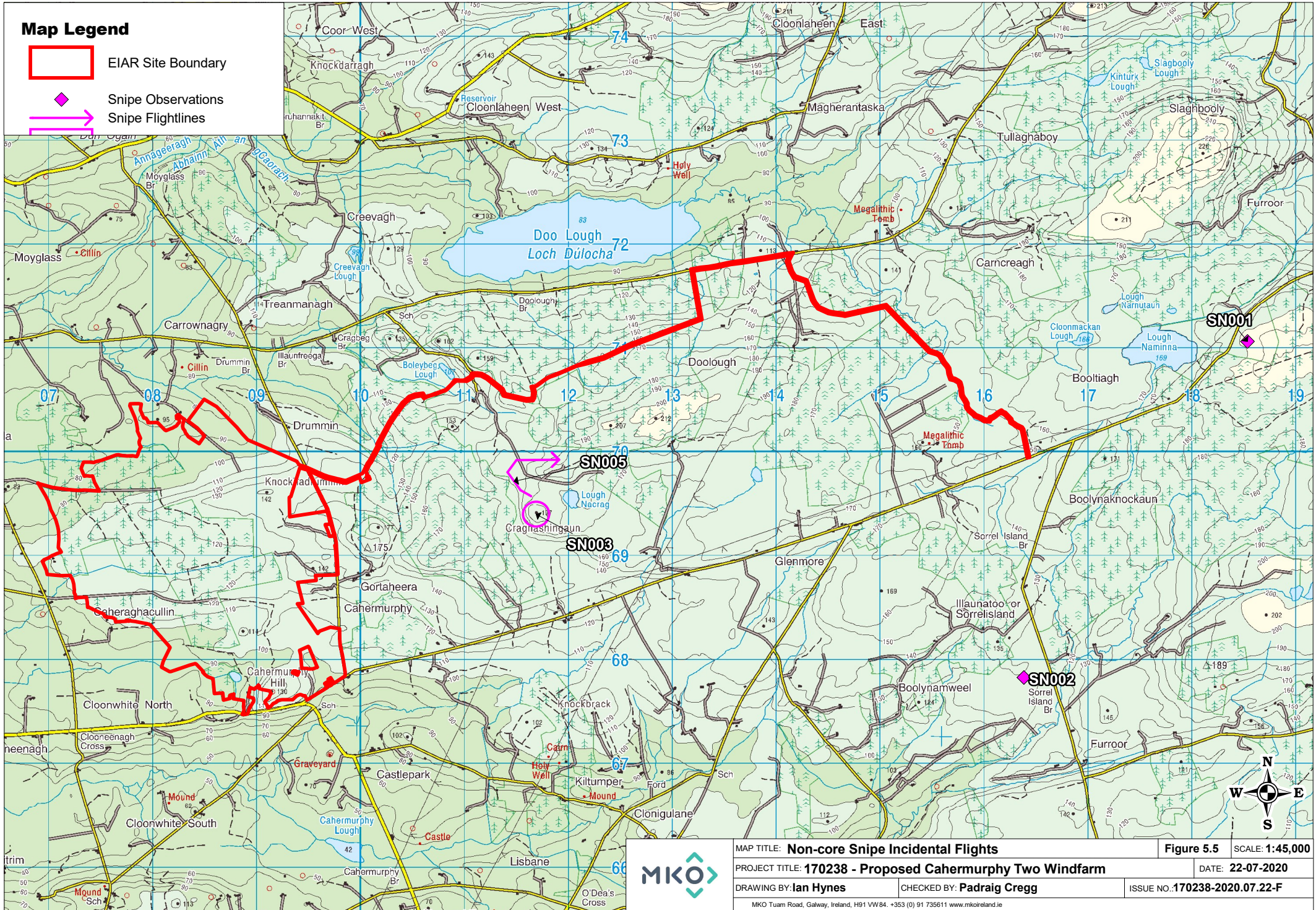
-  EIAR Site Boundary
-  Snipe Observations
-  Snipe Flightlines



MAP TITLE: Non-core Winter Walkover Snipe Flights		Figure 4.5	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
<small>MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 7356110 www.mkoireland.ie</small>			

Map Legend

-  EIAR Site Boundary
-  Snipe Observations
-  Snipe Flightlines



MAP TITLE: Non-core Snipe Incidental Flights		Figure 5.5	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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Table 1-24 Teal Vantage Point Survey Data

Final Ref No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
T001	18/04/2017	VP4	Eurasian Teal	3	11:00:00						+		PB2, (Upland blanket bog) FL1, (Dystrophic lakes) Displaying. To boleybog lake	Recorded as Non-Target	JM



Table 1-25 Teal Vantage Point Survey (non-flight data)

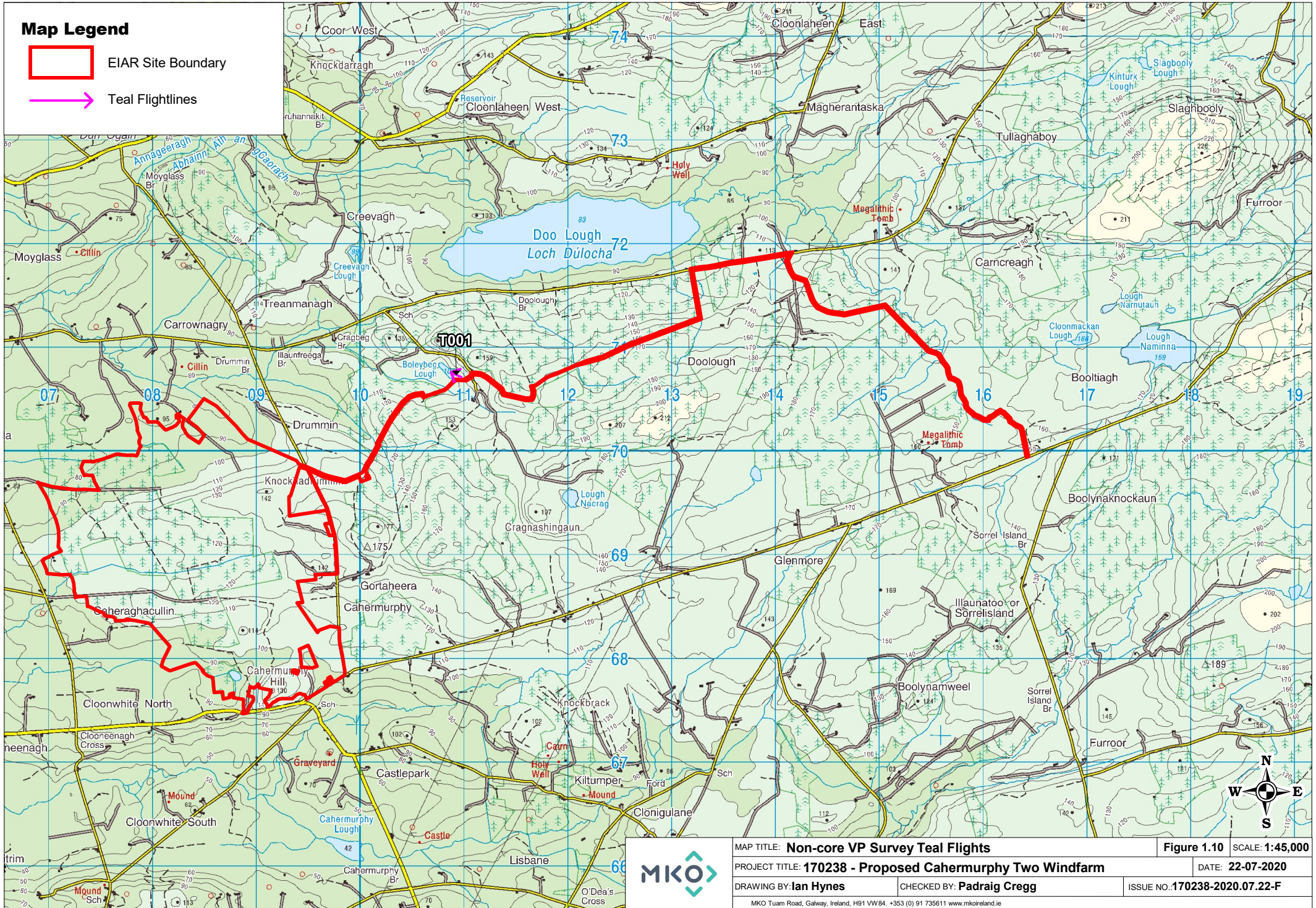
Map Reference No.	Date	VP	Season	Species	Target Spp (N/Y)	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
T001	21/04/2018	4	Breeding	Teal	Y	1		Lough Nacragh	Lough Nacragh	PT

Table 1-26 Teal Breeding Walkover Survey Data

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
T001	11/04/2017			Eurasian Teal	3		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation), in flight		JM

Map Legend

-  EIAR Site Boundary
-  Teal Flightlines



MAP TITLE: **Non-core VP Survey Teal Flights**

Figure 1.10 SCALE: 1:45,000

PROJECT TITLE: **170238 - Proposed Cahermurphy Two Windfarm**

DATE: **22-07-2020**

DRAWING BY: **Ian Hynes**

CHECKED BY: **Padraig Cregg**

ISSUE NO.: **170238-2020.07.22-F**

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Map Legend

-  EIAR Site Boundary
-  Teal Flightline

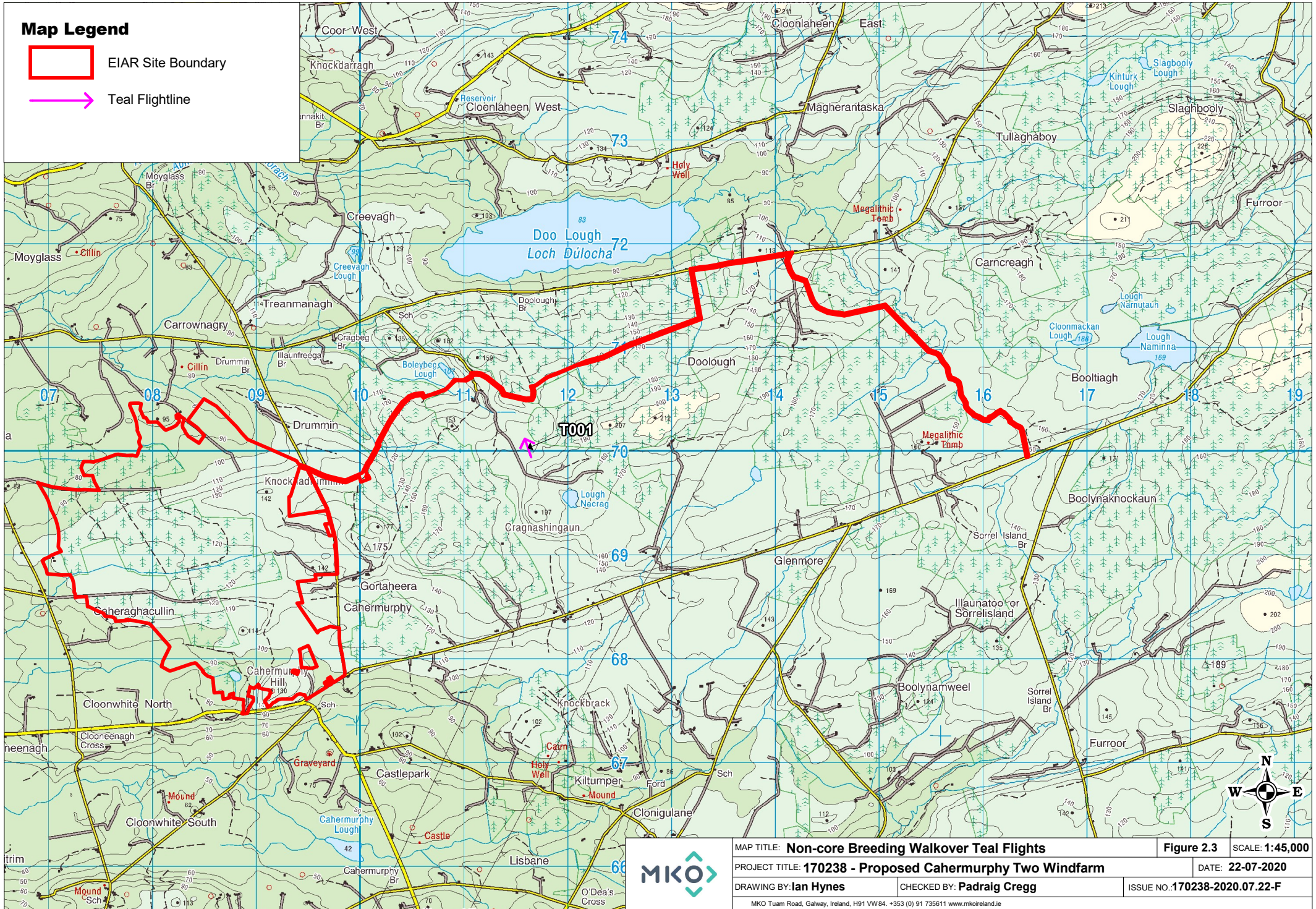


Table 1-27 Meadow Pipit Breeding Walkover Transect Survey Data

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP001	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP002	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP003	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP004	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP005	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP006	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP007	11/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP008	17/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP009	17/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0010	17/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0011	17/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0012	17/04/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0013	08/05/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0014	08/05/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0015	09/05/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0016	09/05/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0017	20/06/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0018	20/06/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0019	20/06/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0020	21/06/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0021	21/06/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0022	21/06/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0023	25/07/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0024	25/07/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0025	25/07/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0026	26/07/2017			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0027	26/07/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0028	26/07/2017			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		JM
MP0029	06/04/2018			Meadow Pipit					TK
MP0030	06/04/2018			Meadow Pipit					TK
MP0031	06/04/2018			Meadow Pipit					TK
MP0032	06/04/2018			Meadow Pipit					TK
MP0033	06/04/2018			Meadow Pipit					TK
MP0034	13/04/2018			Meadow Pipit					TK
MP0035	13/04/2018			Meadow Pipit					TK
MP0036	03/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0037	03/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0038	03/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0039	04/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0040	04/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0041	04/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0042	04/05/2018			Meadow Pipit			GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0043	12/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0044	12/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0045	12/07/2018			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK



Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0046	12/07/2018			Meadow Pipit	3		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0047	12/07/2018			Meadow Pipit	3		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0048	12/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

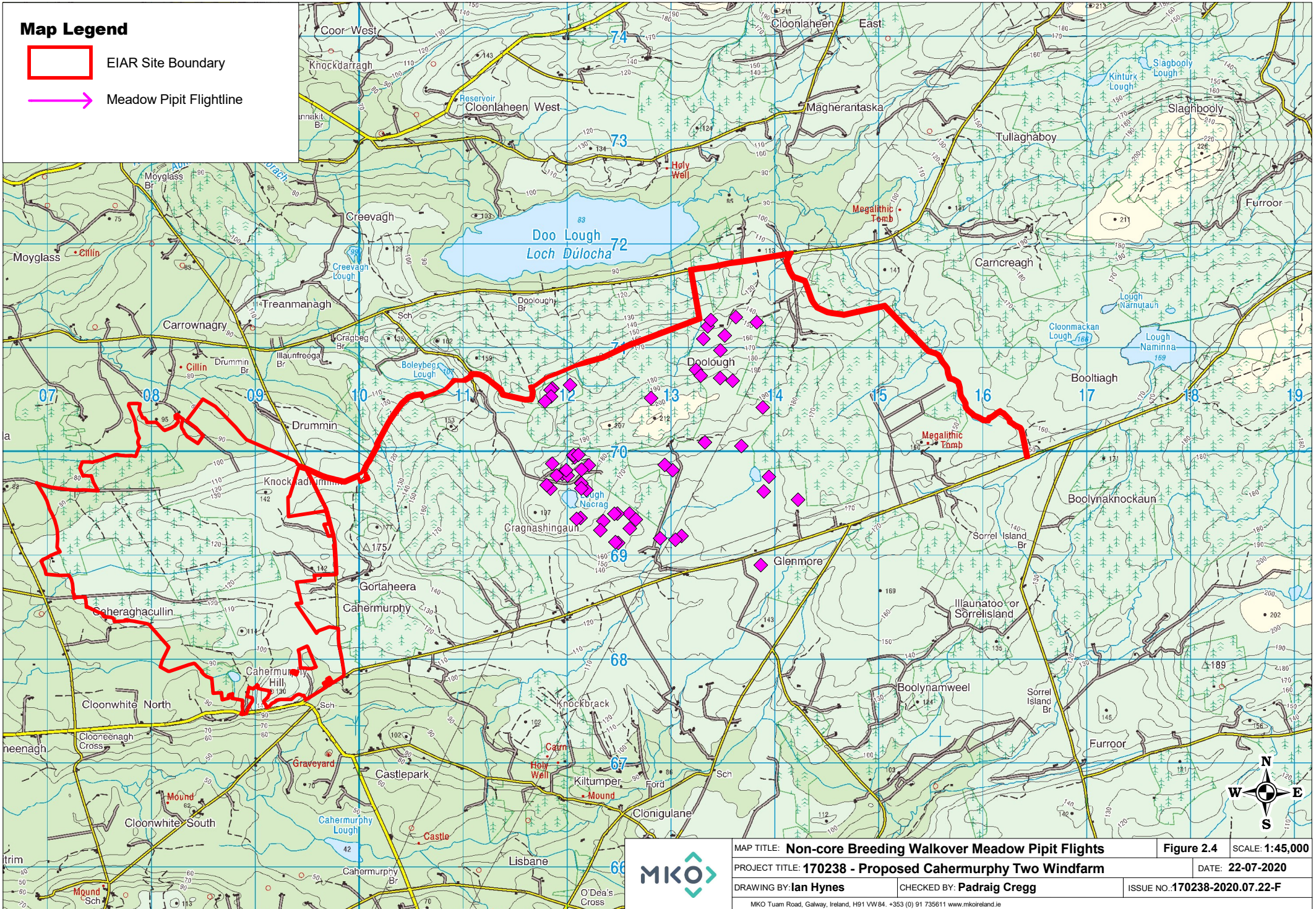
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MP0049	14/07/2018			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0050	14/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0051	14/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0052	14/07/2018			Meadow Pipit	2		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0053	14/07/2018			Meadow Pipit	3		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0054	14/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Final Reference No.	Survey Date	VP/Trans/Quad No.	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	comments	Surveyor
MP0055	14/07/2018			Meadow Pipit	1		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK
MP0056	14/07/2018			Meadow Pipit	4		GA1, (Improved agricultural grassland) PB2, (Upland blanket bog) WD4, (Conifer plantation)		TK

Map Legend

-  EIAR Site Boundary
-  Meadow Pipit Flightline





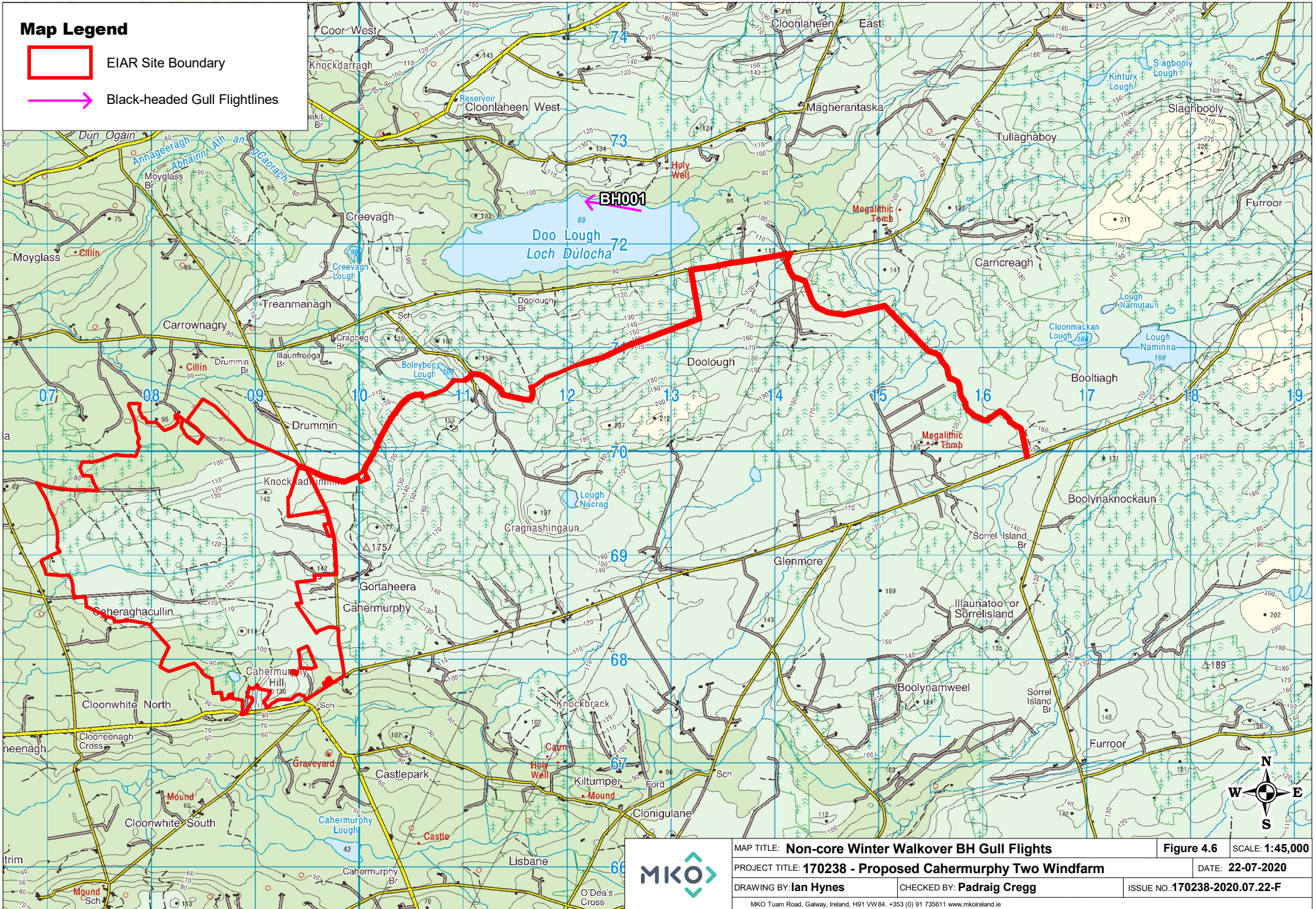
MAP TITLE: Non-core Breeding Walkover Meadow Pipit Flights	Figure 2.4	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm	DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie		

Table 1-28 Black-headed Gull Winter Walkover Transect Survey Data

Final Ref No.	Survey Date	Trans No.	Species	Number of birds	Habitat and Activity	Comments	Surveyor
BH001	10/10/2017		Black-headed Gull	7	travelling		JK

Map Legend

-  EIAR Site Boundary
-  Black-headed Gull Flightlines



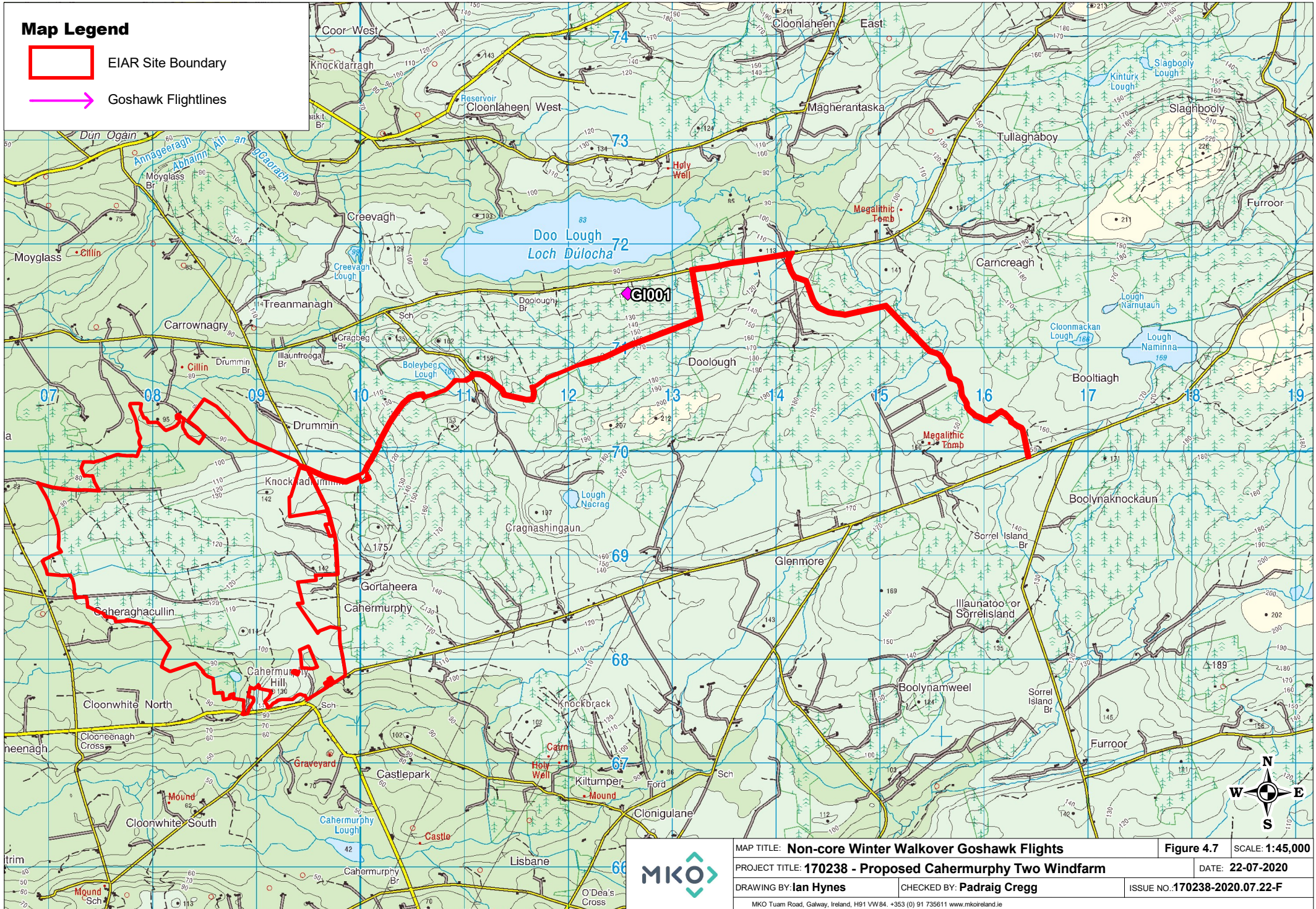
MAP TITLE: Non-core Winter Walkover BH Gull Flights	Figure 4.6	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm	DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F
MKO Tuam Road, Galway, Ireland, H91 VW84. +353 (0) 91 735611 www.mkoireland.ie		

Table 1-29 Goshawk Winter Walkover Transect Data

Final Ref No.	Survey Date	Trans No.	Species	Number of birds	Habitat and Activity	Comments	Surveyor
GI001	11/12/2017		Northern Goshawk	1	WD4, (Conifer plantation) PB4, (Cutover bog)	mobbed while perching by corvids	JK

Map Legend

- EIAR Site Boundary
- ➔ Goshawk Flightlines



MAP TITLE: Non-core Winter Walkover Goshawk Flights		Figure 4.7	SCALE: 1:45,000
PROJECT TITLE: 170238 - Proposed Cahermurphy Two Windfarm		DATE: 22-07-2020	
DRAWING BY: Ian Hynes	CHECKED BY: Padraig Cregg	ISSUE NO.: 170238-2020.07.22-F	
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