



## APPENDIX 7-4

*SURVEY DATA*

## Appendix 7-4 – Survey Data

### Curraglass Renewable Energy Development





## DOCUMENT DETAILS

Client: **Wingleaf Ltd**

Project Title: **Curraglass Renewable Energy Development**

Project Number: **190301**

Document Title: **Appendix 7-4 – Survey Data**

Document File Name: **190301 – EIAR – 2020.06.24 – F**

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Rev	Status	Date	Author(s)	Approved By
01	Draft	09/04/2020	MP	DN
02	Final	24/06/2020	MP	DN/PC



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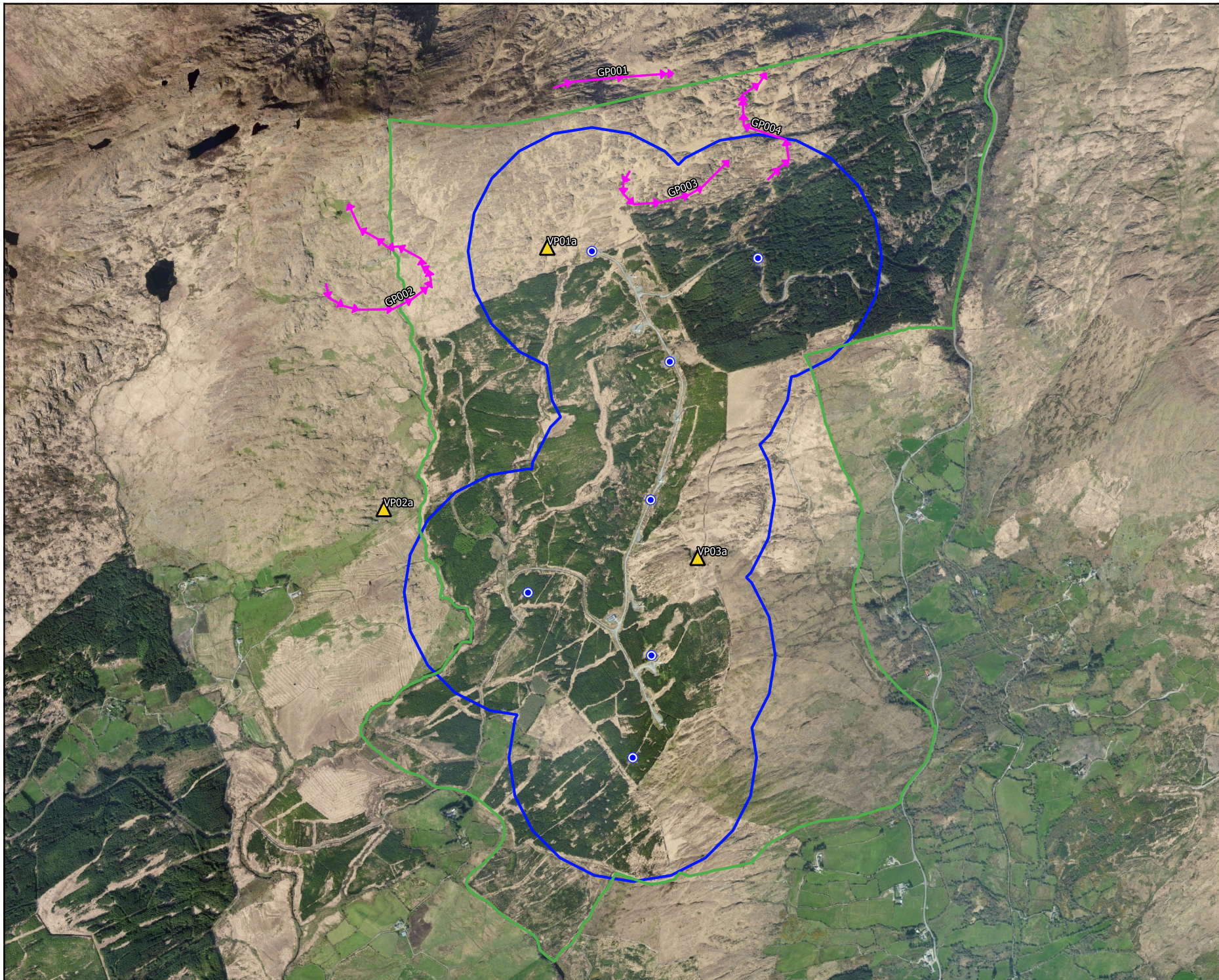
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## APPENDIX 7-4 (SURVEY DATA)

Table 1 Golden Plover Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
GP001	09/12/2018	1a	Golden Plover	11	10:10	20	20				PB2, (Upland blanket bog) Flock flew from foraging then landed on bog to E	JM
GP002	09/12/2018	1a	Golden Plover	13	12:17	25	15	10			PB2, (Upland blanket bog) Flew in a flock circling and calling	JM
GP003	09/12/2018	1a	Golden Plover	15	13:21	20	20				PB2, (Upland blanket bog) Flock heading toward NE	JM
GP004	28/01/2019	1a	Golden Plover	15	14:07	46			46		PB2, (Upland blanket bog) Flock landed on bog and flew north	JM

Incidental Observation						
Date	Survey Type	Location	Species	No. of Birds	Notes	Surveyor
09/12/2018	Hen harrier roost	1	Golden Plover	2	Pair flying towards lakes to west 15:14	JM
24/03/2020	Red Grouse Survey	508523.220079882, 564031.045162603	Golden Plover	3	Found on upland section of heath / acid grassland / exposed rock	JC



### Map Legend

- EIA Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Golden Plover VP Flight






Map Title	
<b>Golden Plover VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-1</b>
Scale	Date
<b>1:20000</b>	<b>17.04.2020</b>

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### Map Legend

-  EIAR Site Boundary
-  Turbine Location
-  Golden Plover Observation



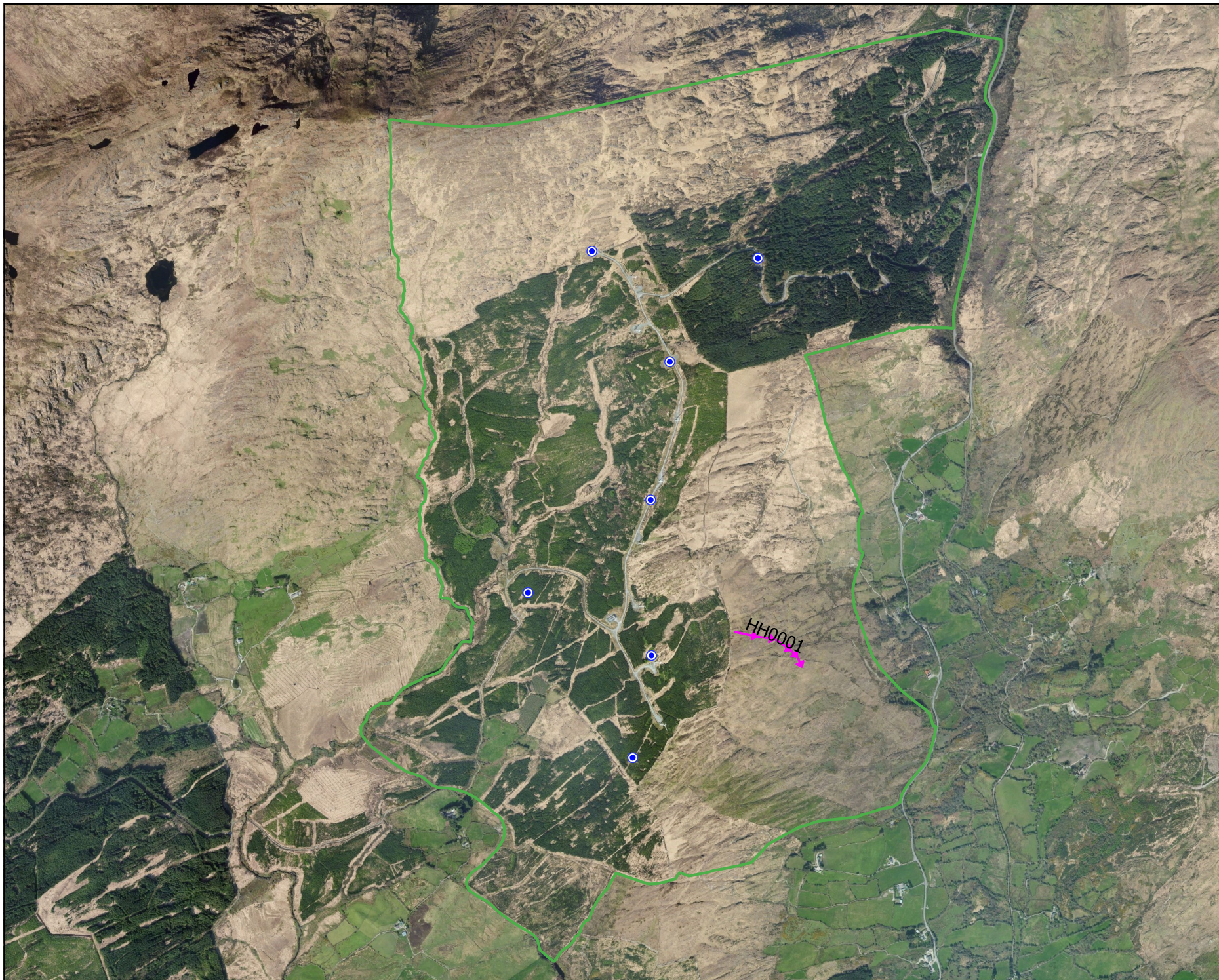
Map Title	
<b>Golden Plover Incidental Observations</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-9-1</b>
Scale	Date
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Table 2 Hen Harrier Survey Data

Breeding Bird Survey								
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	Comments	Surveyor
HH0001	19/04/2019	13:56:00	Hen Harrier	1	Male	Upland blanket bog, in flight	Male Hen Harrier in flight low over ground, 2-3m above ground	TK





### Map Legend

- EIA Site Boundary
- Turbine Location
- ➔ Hen Harrier Observations



Map Title  
**Hen Harrier Breeding Bird Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

<b>Drawn By</b> Margaux Pierrel	<b>Checked By</b> Padraig Cregg
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<b>Project No.</b> 190301	<b>Map No.</b> Fig 7-3-1
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<b>Scale</b> 1:20000	<b>Date</b> 05.05.2020
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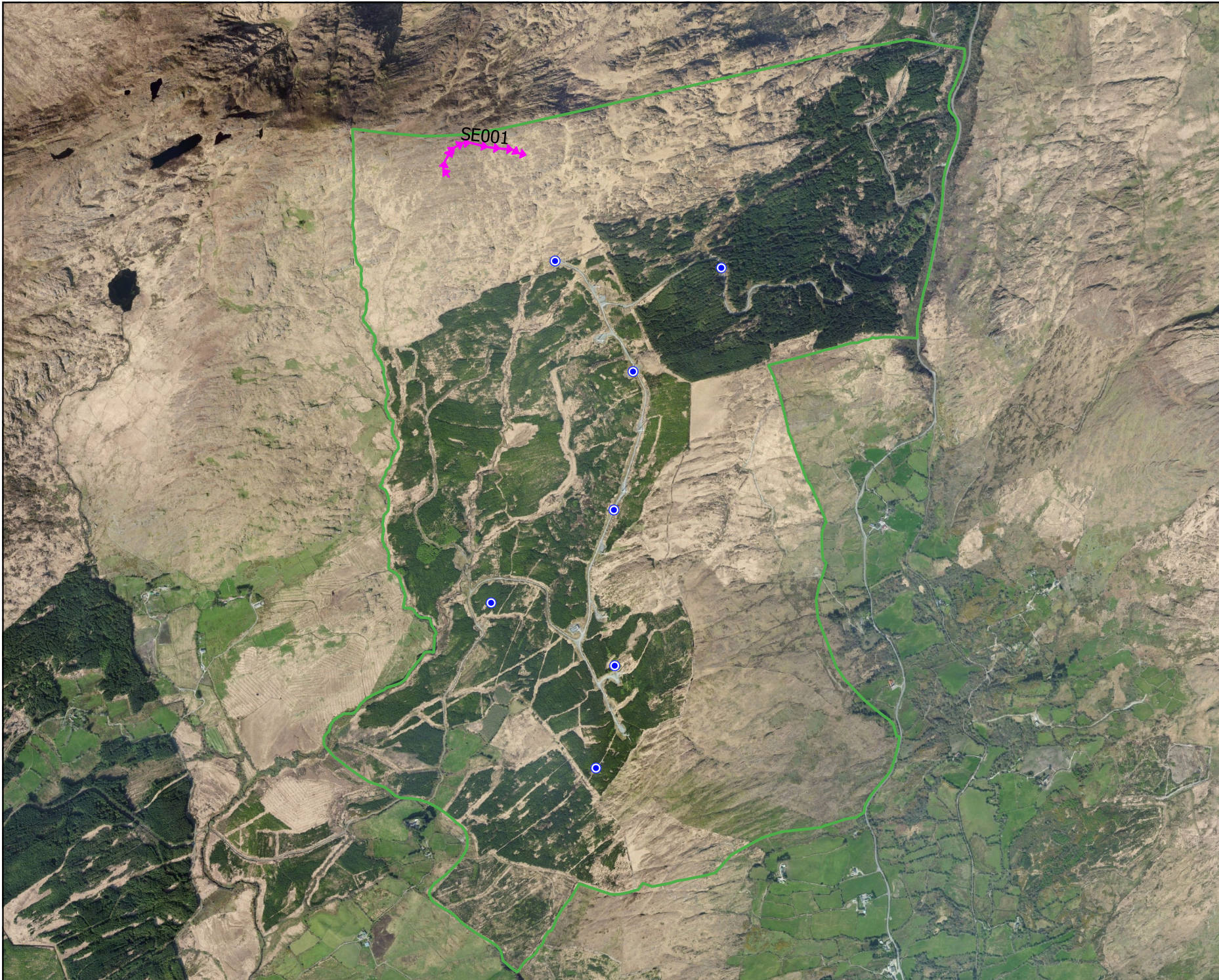
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Table 3 Short-eared Owl Survey Data


Incidental Observation						
Date	Survey Type	HHVP	Species	Number of Birds	Notes	Surveyor
21/11/2018	Hen harrier roost	1	Short-eared Owl	1	Adult seen briefly over bog. Ten sec flight at 16:25	JM



### Map Legend

-  EIA Site Boundary
-  Turbine Location
-  Short-eared Owl Observation



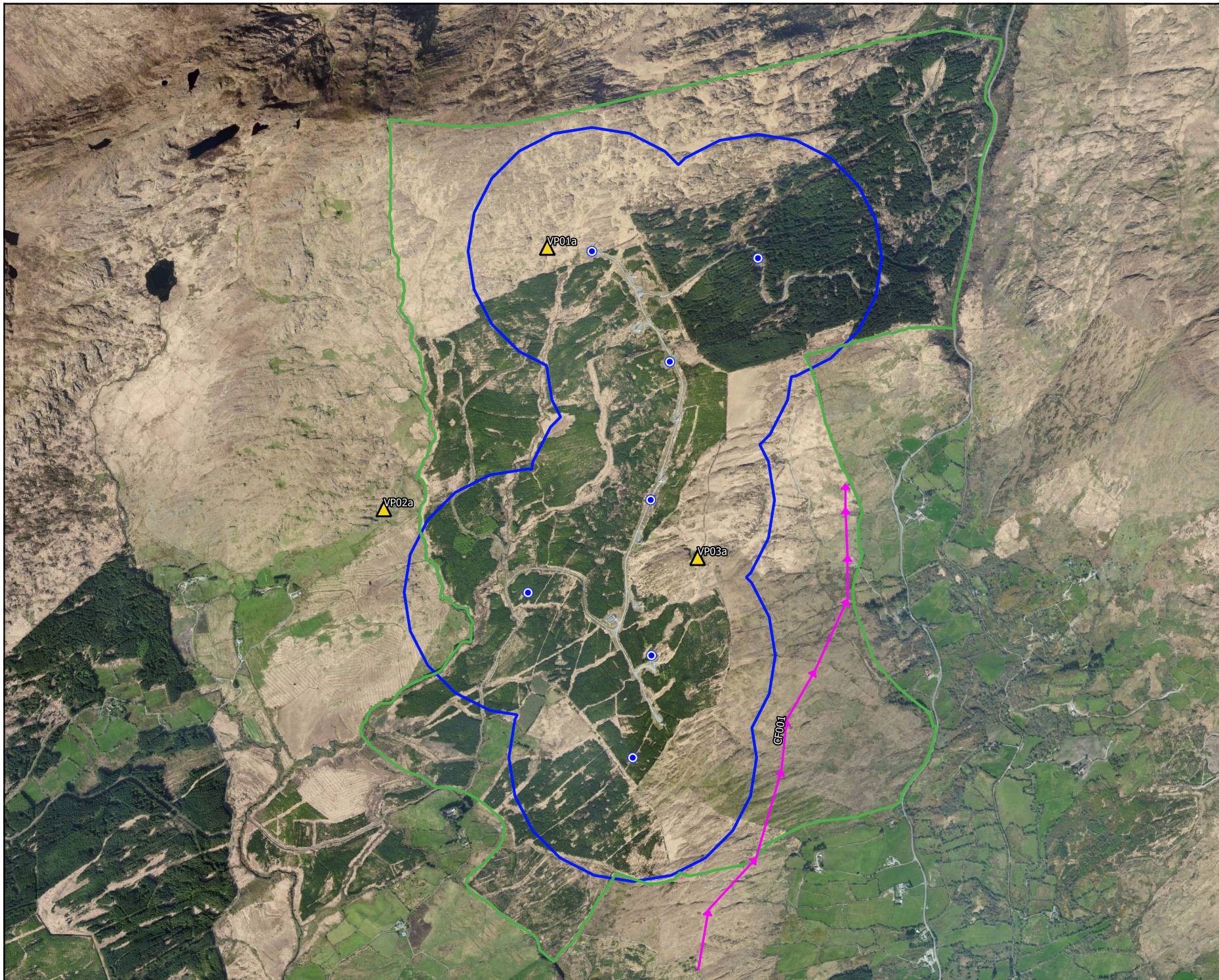
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Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
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Project No.	Map No.
<b>190301</b>	<b>Fig 7-9-2</b>
Scale	Date
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Table 4 Chough Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
CF001	11/06/2019	3	Chough	2	14:58	63		63			GA1, (Improved agricultural grassland) Travelling	JK

Incidental Observation						
Date	Survey Type	Location	Species	No. of Birds	Notes	Surveyor
25/04/2018	Breeding walkover	W101640	Chough	1	Chough heard calling flying over not seen, general location mapped	CB
16/05/2018	Raptor Survey	1	Chough	1	Calling & feeding in fields near road outside wind farm site 14:24 300 secs	CB
27/06/2018	Raptor Survey	4	Chough	1	One chough heard once close to VP - not seen 15:51:00	CB



### Map Legend

- E.I.A.R. Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Chough VP Flight



Map Title	
<b>Chough VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-2</b>
Scale	Date
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### Map Legend

- EIA Site Boundary
- Turbine Location
- Chough Observation



<b>Map Title</b>	
<b>Chough Incidental Observations</b>	
<small>Project Title</small>	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
<small>Drawn By</small>	<small>Checked By</small>
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
<small>Project No.</small>	<small>Map No.</small>
<b>190301</b>	<b>Fig 7-9-3</b>
<small>Scale</small>	<small>Date</small>
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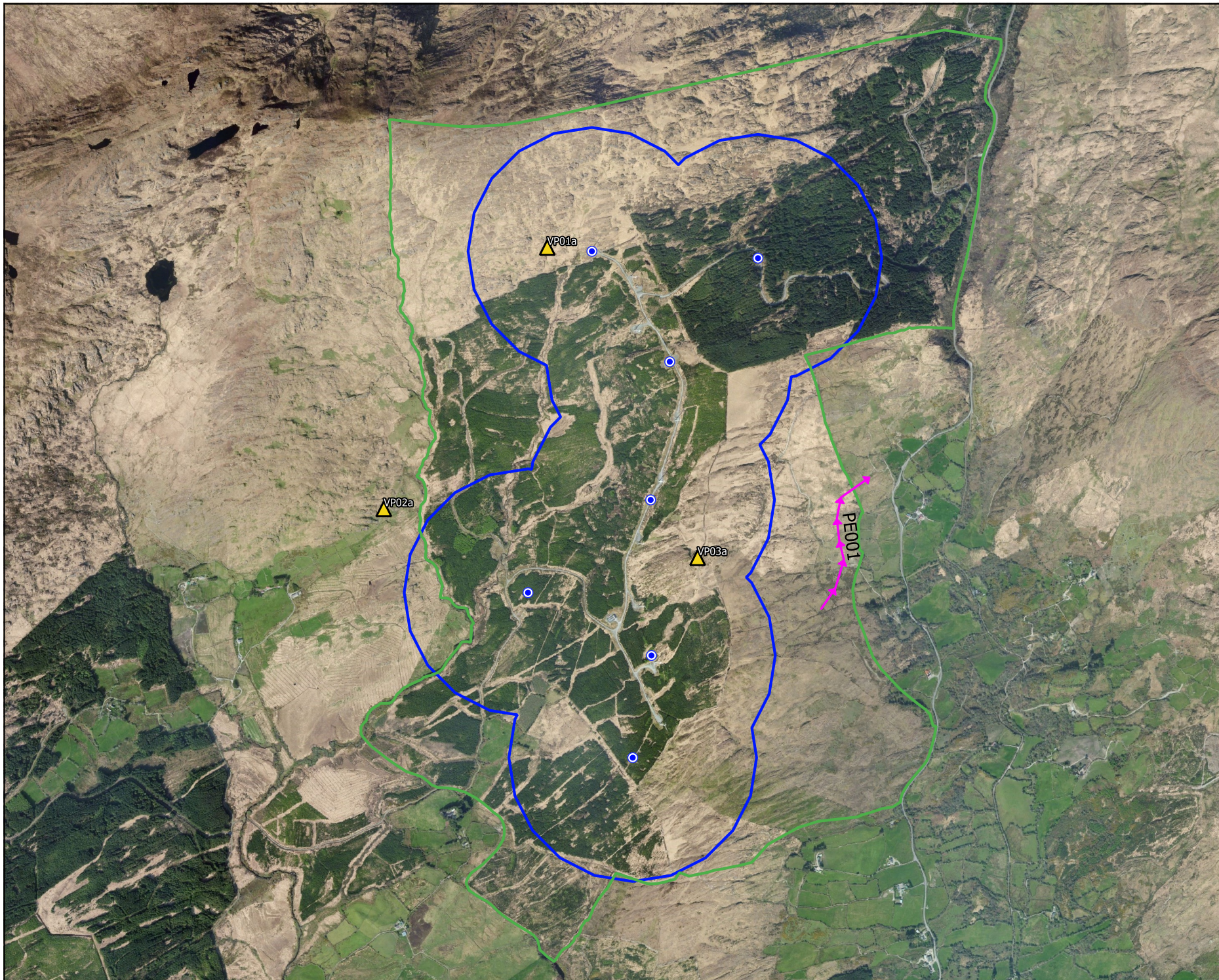
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Table 5 Peregrine Survey Data

Vantage Point Survey														
Map Ref.	New Ref	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
PE001	PE001	16/12/2019	3	Peregrine Falcon	1	11:16	52			52		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring / Travelling	Male	JK

Breeding Raptor Survey							
New Ref	Date	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Surveyor
PE001	16/05/2018	Peregrine Falcon	1	09:43:00	240	(Mixed) broadleaved woodland GS4, (Wet grassland) GA1, (Improved agricultural grassland) Soaring in valley SW of Kealkill windfarm	CB
PE002	16/05/2018	Peregrine Falcon	1	09:53:00	71	(Mixed) broadleaved woodland GS4, (Wet grassland) GA1, (Improved agricultural grassland) Soaring again just outside wind farm then gliding/stooping to the south-east	CB

Winter Transect Survey					
New Ref	Survey Date	Species	Number of birds	Habitat and Activity	Surveyor
PE0001	09/12/2019	Peregrine Falcon	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling	JK



### Map Legend

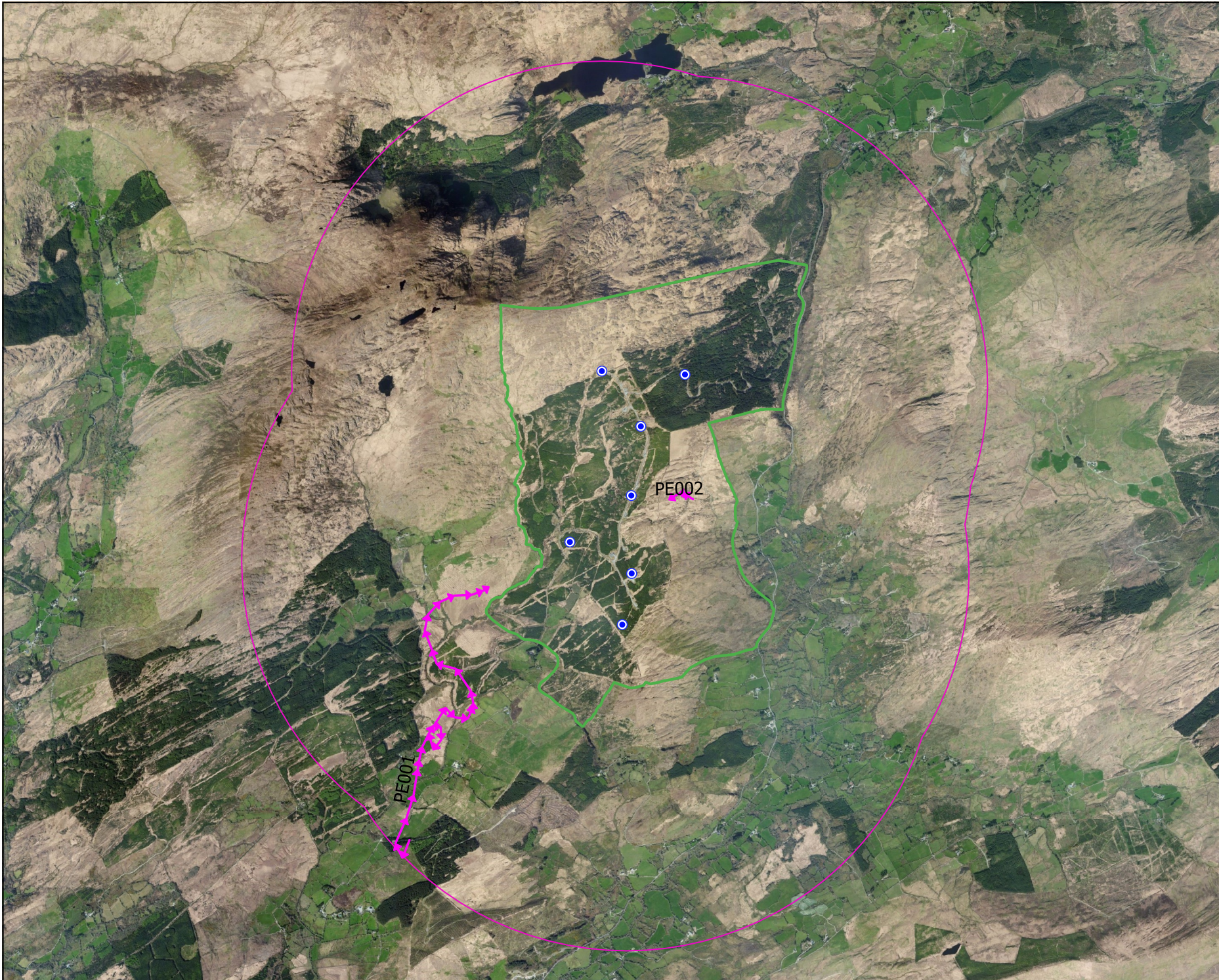
- E.I.A.R. Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Peregrine VP Flight



Map Title	
<b>Peregrine VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-3</b>
Scale	Date
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### Map Legend

- EIA Site Boundary
- Turbine Location
- 2km Survey Radius
- ➔ Peregrine Observations



Map Title  
**Peregrine Breeding Raptor Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By **Margaux Pierrel**      Checked By **Padraig Cregg**

Project No. **190301**      Map No. **Fig 7-4-1**

Scale **1:40000**      Date **05.05.2020**

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### Map Legend

- EIA Site Boundary
- Turbine Location
- Winter Transect Survey Area (500m)
- Waterfowl Survey Area (1km)
- ➔ Peregrine Observation



Map Title  
**Peregrine Winter Transect Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-8-1</b>
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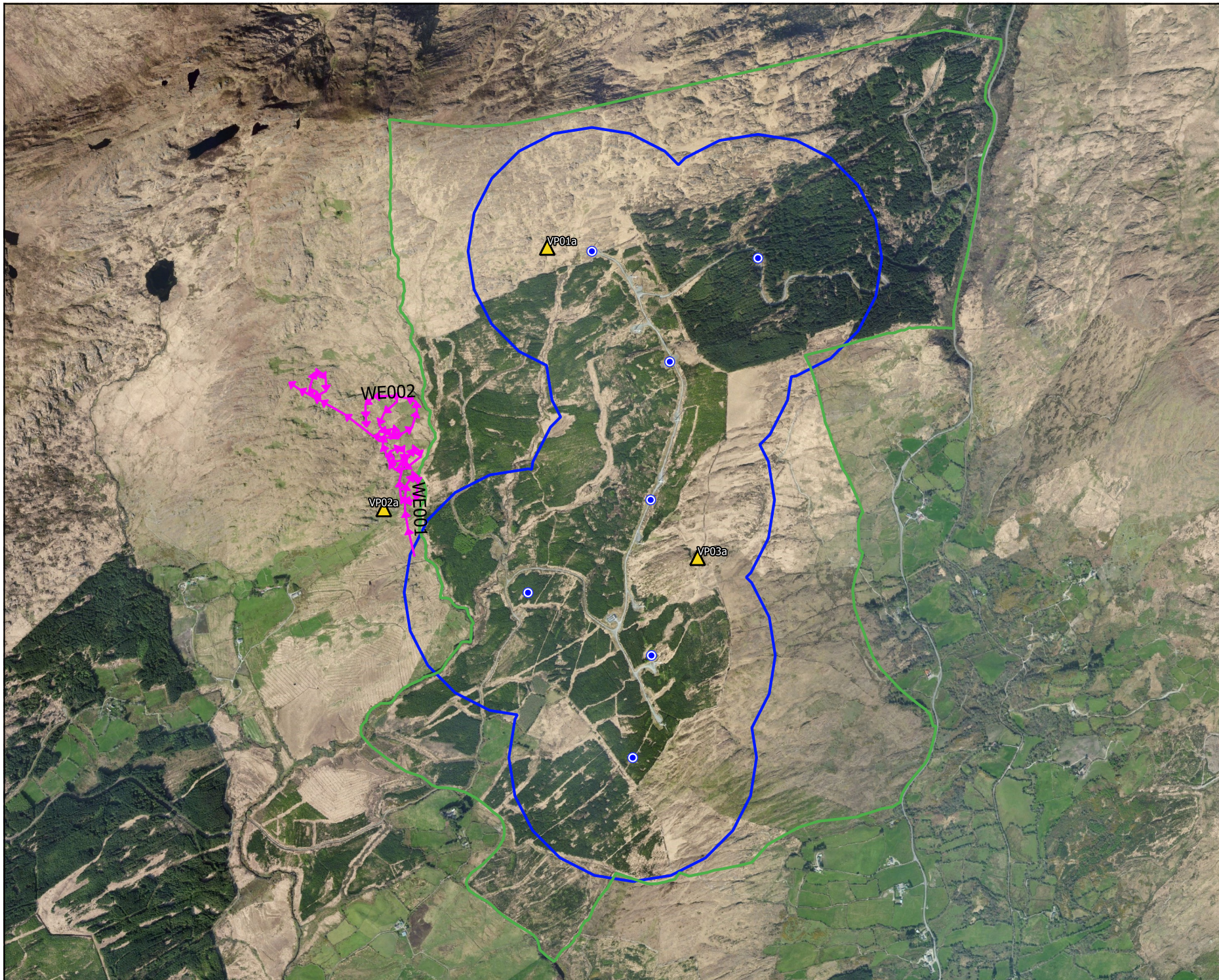
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Table 6 White-tailed Eagle Survey Data

Vantage Point Survey												
New Ref	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
WE001	08/05/2018	1a	White-tailed Eagle	1	09:12	310			192	118	Soaring	cc
WE002	11/02/2019	VP 2	White-tailed Eagle	1	14:26	27				27	PB2, (Upland blanket bog) ER1, (Exposed siliceous rock) Soaring	TK



### Map Legend

- E.I.A.R. Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- ➔ White-tailed Eagle VP Flight



Map Title	
<b>White-tailed Eagle VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-4</b>
Scale	Date
<b>1:20000</b>	<b>05.05.2020</b>

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Table 7 Barn Owl Survey Data

Incidental Observation						
Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor
24/09/2018	Vantage Point	VP02A	Barn Owl	1	Barn Owl seen perched on fence post as I was driving along access route to VP02A	TK



**Map Legend**

- EIA Site Boundary
- Turbine Location
- ➔ Barn Owl Observation



Map Title  
**Barn Owl Incidental Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-9-4</b>
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Scale <b>1:30000</b>	Date <b>06.05.2020</b>
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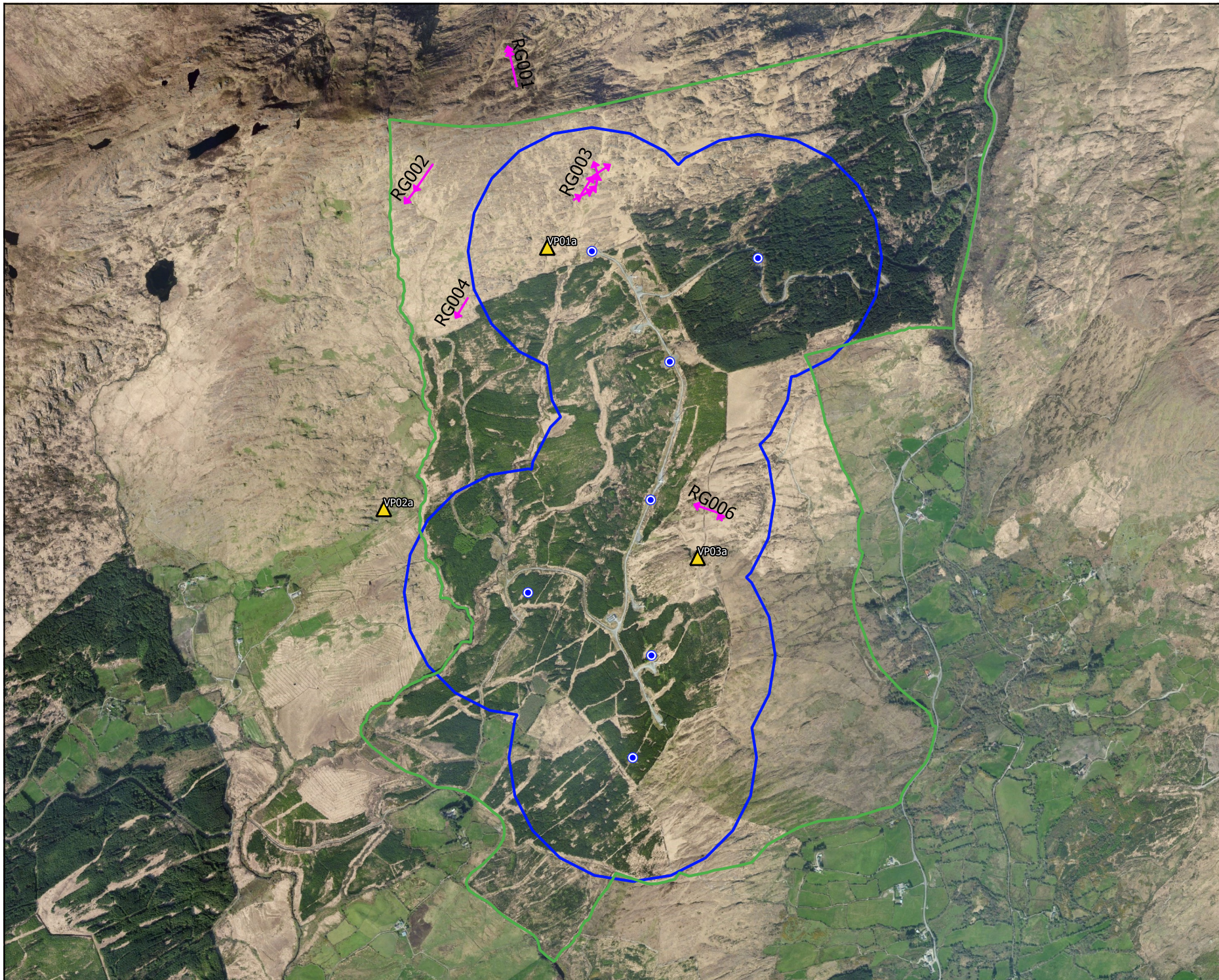
BO001

Table 8 Red Grouse Survey Data

Vantage Point Survey												
New Ref	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
RG001	09/12/2018	1a	Red Grouse	1	08:44	5	5				PB2, (Upland blanket bog) Flew briefly to north	JM
RG002	09/12/2018	1a	Red Grouse	1	10:05	12	12				PB2, (Upland blanket bog) Flew from cover landed in SW	JM
RG003	09/12/2018	1a	Red Grouse	2	12:29	8	8				PB2, (Upland blanket bog) Calling heard and brief flight observed	JM
RG004	09/12/2018	1a	Red Grouse	1	13:44	6	6				PB2, (Upland blanket bog) Flew from cover to SW	JM
RG005	28/01/2019	1a	Red Grouse	2	10:12	12	12				PB2, (Upland blanket bog) Pair flying from bog	JM
RG006	19/08/2019	3	Red Grouse	1	16:55	36	36				PB2, (Upland blanket bog) WD4, (Conifer plantation) Calling from heather then flew over trees	J. Meade

Breeding Bird Survey								
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	Comments	Surveyor
RG0001	19/04/2019		Red Grouse	1	Male	Upland blanket bog, calling	Male Red Grouse heard calling.	TK

Winter Transect Survey							
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Habitat and Activity		Surveyor
RG0001	10/12/2018	Non-breeding	Red Grouse	1	PB2, (Upland blanket bog)	Flew from bog	JM
RG0002	10/12/2018	Non-breeding	Red Grouse	1	PB2, (Upland blanket bog)	Calling	JM
RG0003	21/01/2019	Non-breeding	Red Grouse	2	PB2, (Upland blanket bog)	Flushed from bog	JM



### Map Legend

- EIA Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Red Grouse VP Flight



Map Title	
<b>Red Grouse VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-5</b>
Scale	Date
<b>1:20000</b>	<b>05.05.2020</b>

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### Map Legend

- EIA Site Boundary
- Turbine Location
- ➔ Red Grouse Observations



Map Title  
**Red Grouse Breeding Bird Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-3-2</b>
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Scale <b>1:20000</b>	Date <b>05.05.2020</b>
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### Map Legend

- Eiar Site Boundary
- Winter Transect Survey Area (500m)
- Waterfowl Survey Area (1km)
- Red Grouse Flight
- Red Grouse Observation



Map Title  
**Red Grouse Winter Transect Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
------------------------------------	------------------------------------

Project No. <b>190301</b>	Map No. <b>Fig 7-8-2</b>
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Scale <b>1:30000</b>	Date <b>06.05.2020</b>
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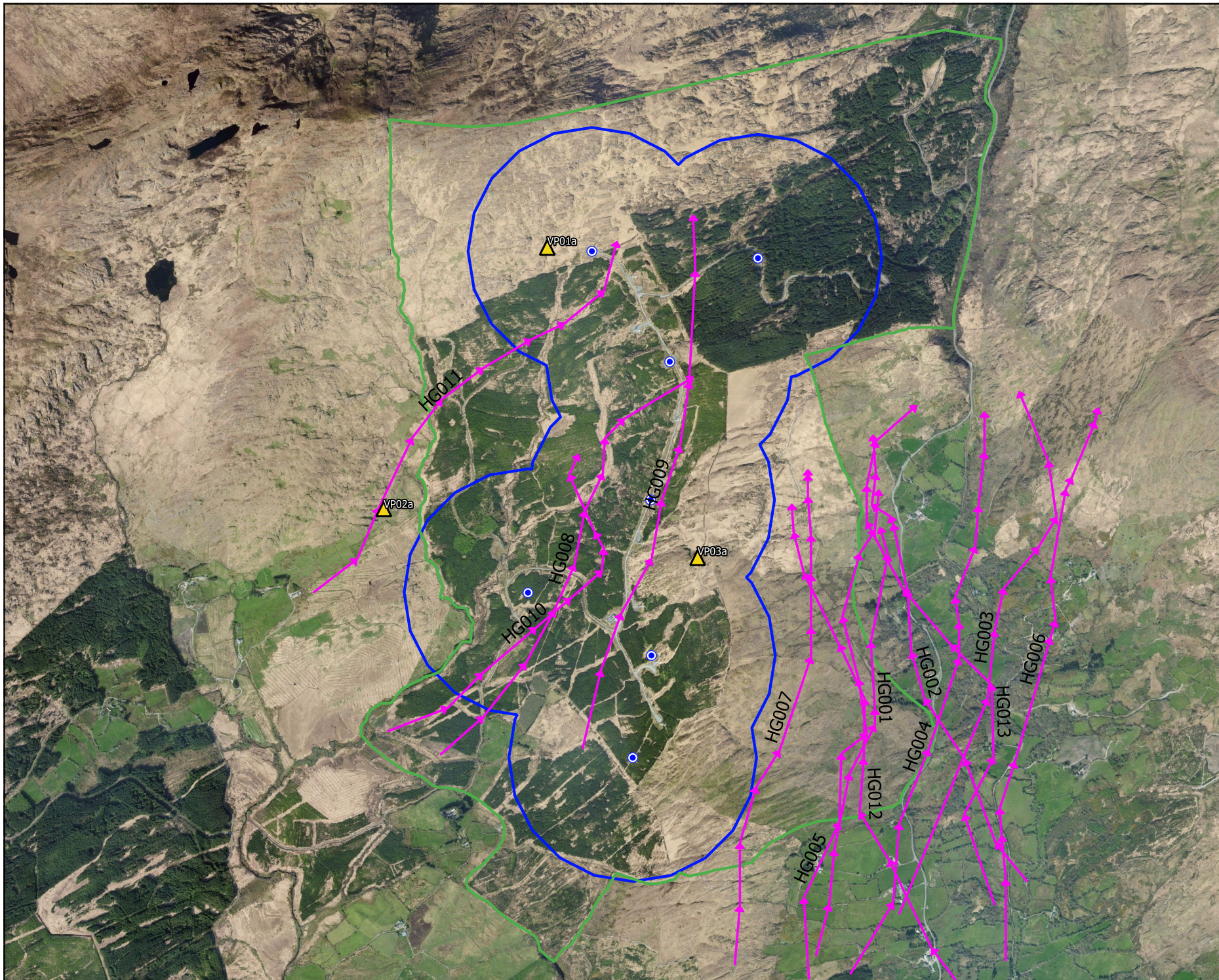
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Table 9 Herring Gull Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
HG001	14/05/2019	3	Herring Gull	4	10:06				48		WD4, (Conifer plantation) PB2, (Upland blanket bog) Travelling	JK
HG002	14/05/2019	3	Herring Gull	2	10:25				37		WD4, (Conifer plantation) PB2, (Upland blanket bog) Travelling	JK
HG003	11/06/2019	3	Herring Gull	6	12:15	119			119		GA1, (Improved agricultural grassland) Travelling	JK
HG004	11/06/2019	3	Herring Gull	16	12:27	87			87		GA1, (Improved agricultural grassland) Travelling	JK
HG005	11/06/2019	3	Herring Gull	9	12:44	122			122		GA1, (Improved agricultural grassland) Travelling	JK
HG006	11/06/2019	3	Herring Gull	2	15:44	51			51		GA1, (Improved agricultural grassland) Travelling	JK
HG007	11/06/2019	3	Herring Gull	3	17:50	105			105		GA1, (Improved agricultural grassland) Travelling	JK
HG008	12/06/2019	2	Herring Gull	6	11:25	184		184			WD4, (Conifer plantation) Travelling	JK
HG009	12/06/2019	2	Herring Gull	2	12:16	151		151			WD4, (Conifer plantation) Travelling	JK
HG010	12/06/2019	2	Herring Gull	1	15:06	76		76			WD4, (Conifer plantation) Travelling	JK
HG011	12/06/2019	2	Herring Gull	2	16:10	88		88			WD4, (Conifer plantation) Travelling	JK
HG012	05/07/2019	3	Herring Gull	10	13:25	54			54		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Travelling	JK
HG013	05/07/2019	3	Herring Gull	7	14:38	48			48		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Travelling	JK



Breeding Bird Survey								
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	Comments	Surveyor
HG0001	13/05/2019	12:20:00	Herring Gull	12		PB2, (Upland blanket bog) Travelling		JK
HG0002	14/06/2019	10:25:00	Herring Gull	3		GA1, (Improved agricultural grassland)		JK
HG0003	20/06/2019	17:44:00	Herring Gull	2		WD4, (Conifer plantation)		JK
HG0004	04/07/2019	14:22:00	Herring Gull	2		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Travelling		JK



### Map Legend

- EIA Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Herring Gull VP Flight



Map Title

**Herring Gull VP Flights  
(April 2018 - March 2020)**

Project Title

**Curraglass Renewable Energy  
Development, Co. Cork**

Drawn By **Margaux Pierrel**      Checked By **Padraig Cregg**

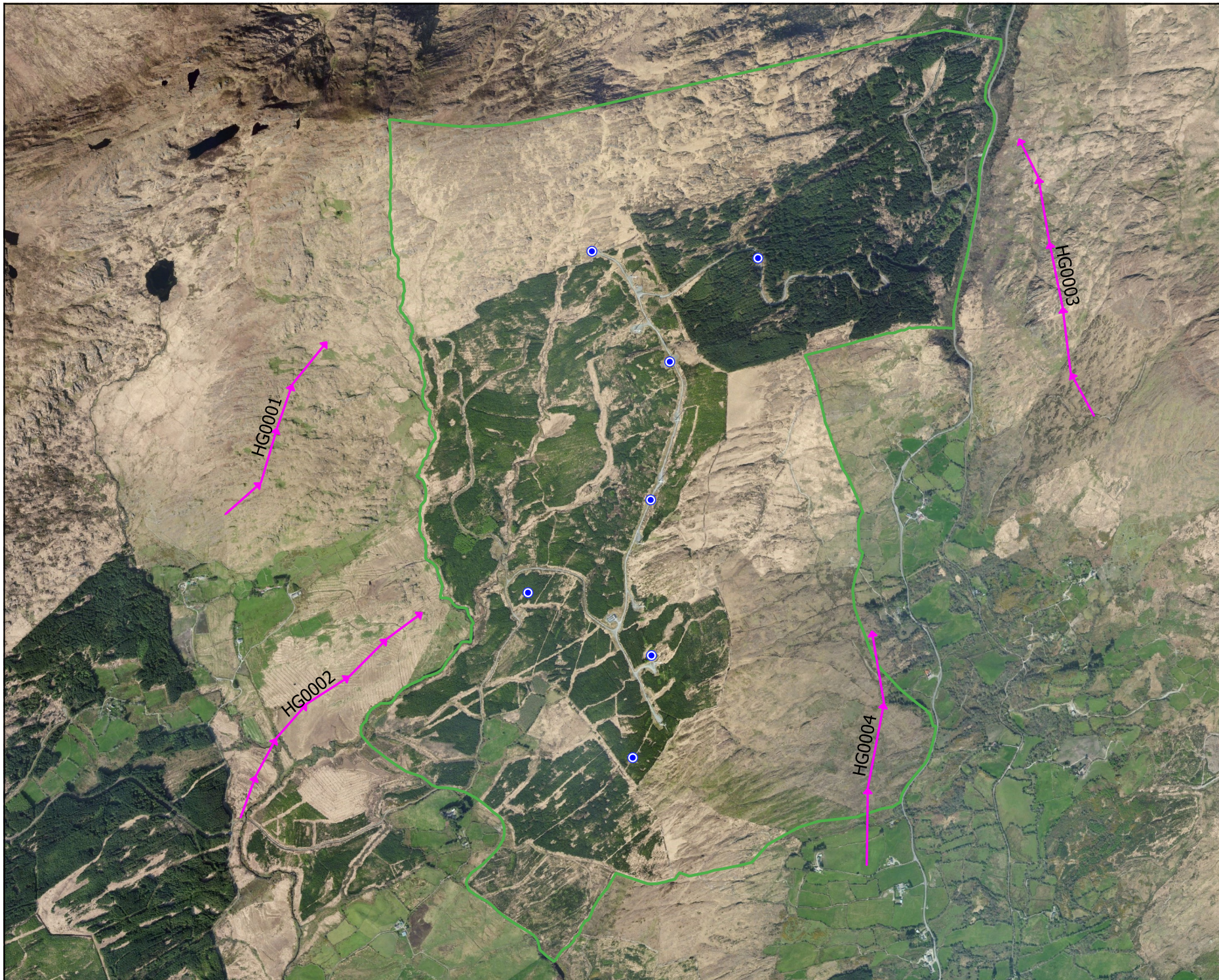
Project No. **190301**      Map No. **Fig 7-1-6**

Scale **1:20000**      Date **05.05.2020**



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### Map Legend

- EIA Site Boundary
- Turbine Location
- Herring Gull Observations



Map Title  
**Herring Gull Breeding Bird Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-3-3</b>
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Scale <b>1:20000</b>	Date <b>05.05.2020</b>
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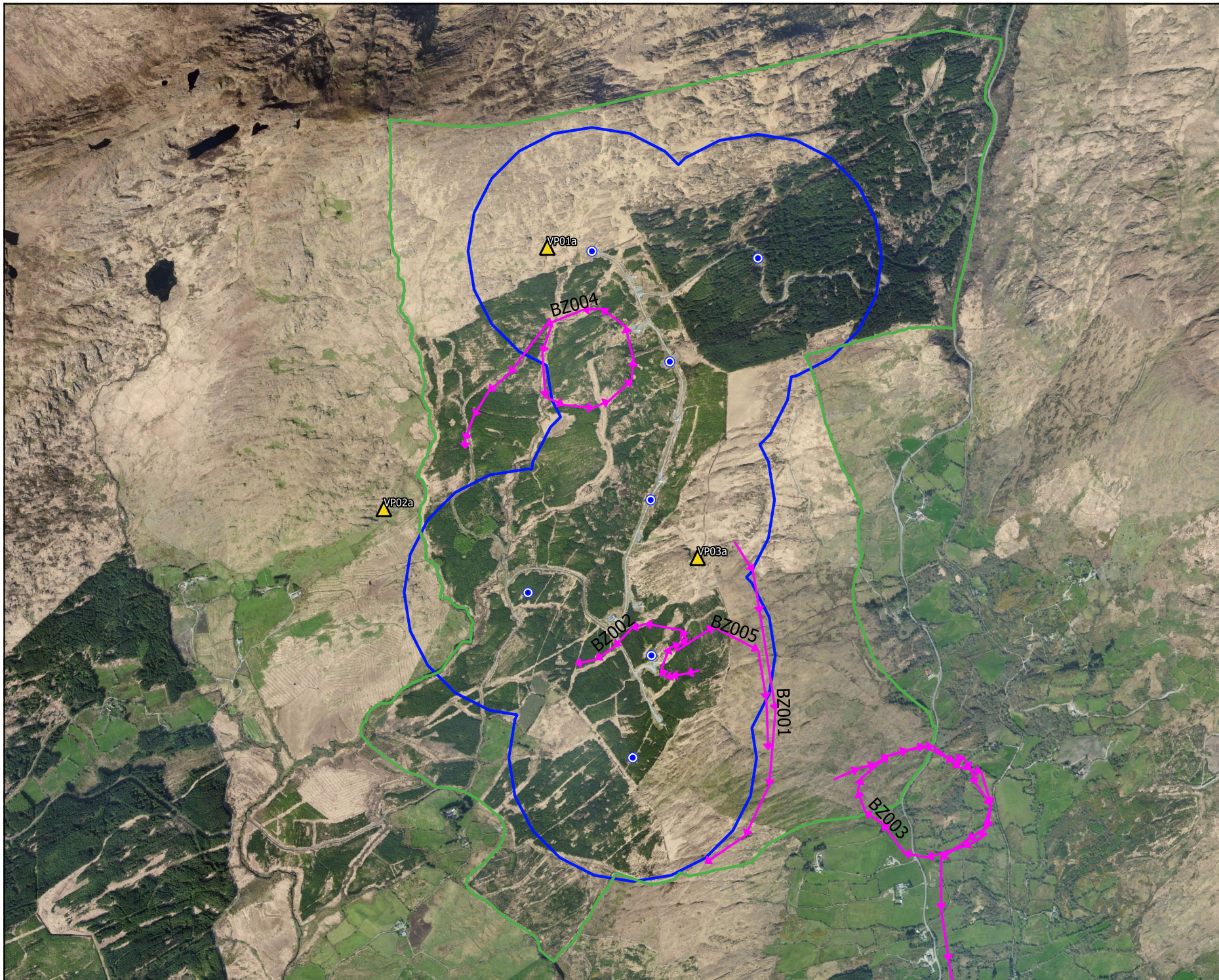
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Table 10 Buzzard Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
BZ001	22/08/2018	3	Buzzard	1	14:51	70					PB2, (Upland blanket bog) travelling	TR
BZ002	16/02/2019	3	Buzzard	1	14:19	264			82		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	TK
BZ003	18/03/2019	3	Buzzard	1	12:50	374			374		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	TK
BZ004	06/04/2019	1	Buzzard	1	15:52	256	16		240		WD4, (Conifer plantation) Soaring	TK
BZ005	22/10/2019	3	Buzzard	1	14:25				110		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring / Travelling	JK

Breeding Raptor Survey								
Map Ref.	Date	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity		Surveyor
BZ001	28/05/2019	Buzzard	2	15:12:00	309	PB3, (Lowland blanket bog)	Hovering Hunting	JK
BZ002	02/07/2019	Buzzard	1	14:51	136	GA1, (Improved agricultural grassland)	WD4, (Conifer plantation) Soaring	JK
BZ003	26/07/2019	Buzzard	3	14:28	422	GA1, (Improved agricultural grassland)	WD4, (Conifer plantation) Soaring	JK



### Map Legend

- EIA Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- ➔ Buzzard VP Flight

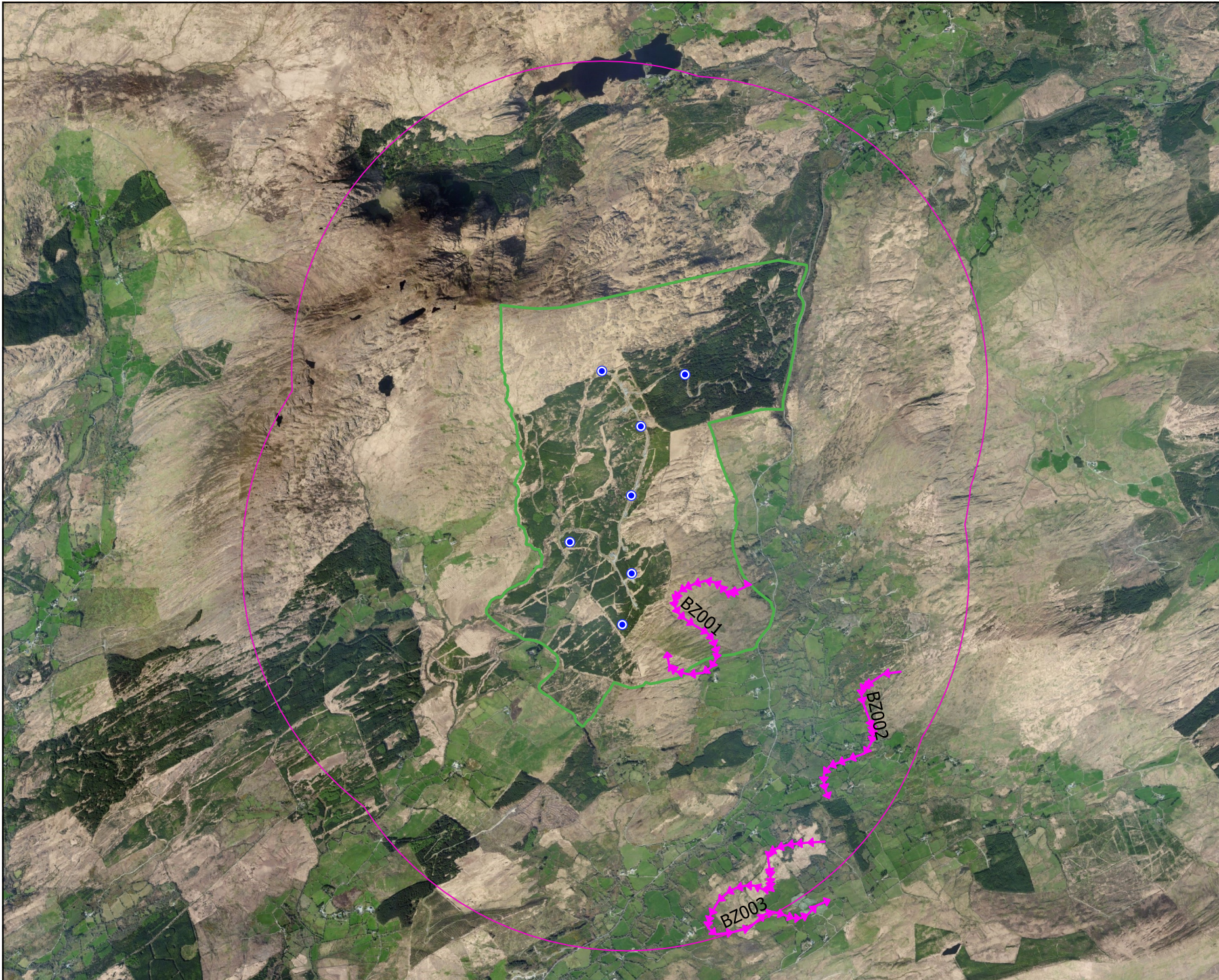


Map Title	
<b>Buzzard VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-7</b>
Scale	Date
<b>1:20000</b>	<b>05.05.2020</b>

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### Map Legend

- EIAR Site Boundary
- Turbine Location
- 2km Survey Radius
- ➔ Buzzard Observations



Map Title  
**Buzzard Breeding Raptor Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-4-2</b>
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Scale <b>1:40000</b>	Date <b>05.05.2020</b>
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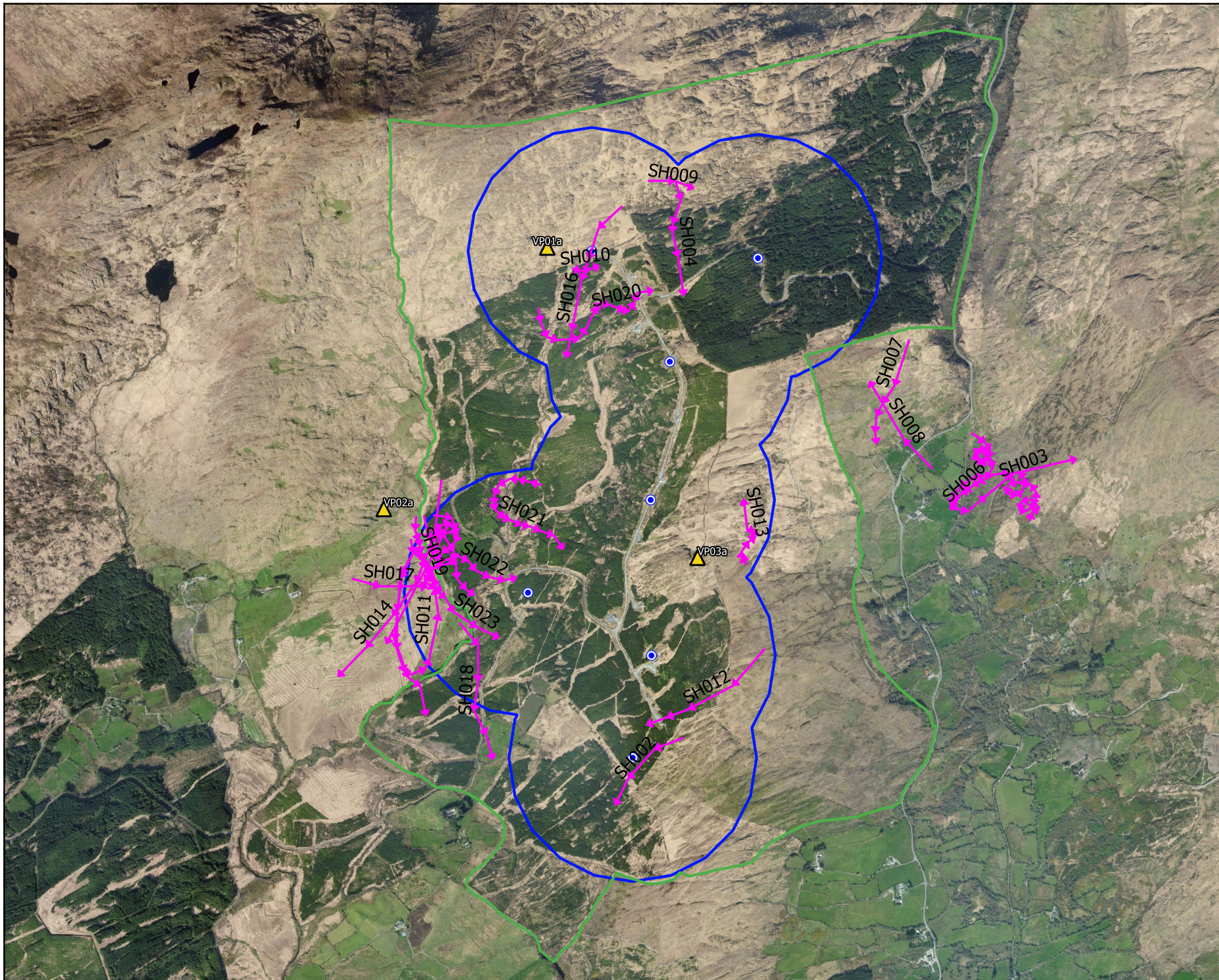
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Table 11 Sparrowhawk Survey Data






Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
SH001	30/04/2018	3	Sparrowhawk	1	10:56	125			125		PB2, (Upland blanket bog) Female flying through area and soaring	J. Meade
SH002	09/05/2018	3a	Sparrowhawk	1	18:21			52			WD4, (Conifer plantation) Male flying	cc
SH003	01/06/2018	3c	Sparrowhawk	1	14:12	117	5	22	51	39	GA1, (Improved agricultural grassland) Foraging	CC
SH004	02/06/2018	1a	Sparrowhawk	1	10:13	33	20	13			WD4, (Conifer plantation) HH1, (Dry siliceous heath) Foraging	CC
SH005	02/06/2018	2a	Sparrowhawk	1	13:31	18	18				WD4, (Conifer plantation) FW1, (Eroding/upland rivers) Foraging	CC
SH006	18/07/2018	3c	Sparrowhawk	1	08:12	36	5	31	0	0	GA1, (Improved agricultural grassland) CIRCLING	Ciaran Cronin
SH007	19/07/2018	3c	Sparrowhawk	1	10:16	32	32	0	0	0	GS3, (Dry-humid acid grassland) FORAGING	Ciaran Cronin
SH008	19/07/2018	3c	Sparrowhawk	1	12:45	29	22	7	0	0	GS3, (Dry-humid acid grassland) GA1, (Improved agricultural grassland) FORAGING, PERCHED	Ciaran Cronin
SH009	21/11/2018	1a	Sparrowhawk	1	11:46	17		17			PB2, (Upland blanket bog) Travelling east over bog	JM
SH010	09/12/2018	1a	Sparrowhawk	1	13:56	12	12				WD4, (Conifer plantation) Male flew to cover over conifers	JM
SH011	11/02/2019	2	Sparrowhawk	1	16:33	186	6		180		PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring	TK
SH012	18/03/2019	3	Sparrowhawk	1	11:42	20	20				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	TK
SH013	09/04/2019	3	Sparrowhawk	1	20:08	25	25				PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	TK
SH014	12/06/2019	2	Sparrowhawk	1	15:45	22	22				WD4, (Conifer plantation) Hunting	JK
SH015	20/08/2019	2	Sparrowhawk	1	15:56	35	35				WS, (Scrub/ transitional woodland) Female flying through area	J. Meade
SH016	21/10/2019	1	Sparrowhawk	1	17:40			48			PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling	JK

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
SH017	17/12/2019	2	Sparrowhawk	1	12:20	15	15				PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	JK
SH018	17/12/2019	2	Sparrowhawk	1	15:32	27		27			PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling	JK
SH019	28/01/2020	2	Sparrowhawk	1	09:38	10	18				Travelling / Hunting	JK
SH020	29/01/2020	1	Sparrowhawk	2	09:05	48			48		WD4, (Conifer plantation) PB2, (Upland blanket bog) Soaring/ Travelling	JK
SH021	17/02/2020	2	Sparrowhawk	1	13:24	38	38				WD4, (Conifer plantation) Soaring/travelling	JK
SH022	17/02/2020	2	Sparrowhawk	1	14:26	22		22			WD4, (Conifer plantation) Soaring/travelling	JK
SH023	26/03/2020	2	Sparrowhawk	1	08:12	34	3	6	25		WD4, (Conifer plantation) HH, (Heath) Circling at 50-70m over conifer plantation before diving rapidly to 3-8 m	MOC

Breeding Raptor Survey								
Map Ref.	Date	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity		Surveyor
SH001	26/04/2018	Sparrowhawk	1	11:06:00	64	WD4, (Conifer plantation) GS4, (Wet grassland) GA1, (Improved agricultural grassland) Flying & soaring over new forestry, improved grassland & rough grazing		CB
SH002	27/06/2018	Sparrowhawk	2	10:13:00	10	(Mixed) broadleaved woodland GS4, (Wet grassland) GA1, (Improved agricultural grassland) Pair of sparrowhawks circling & diving on each other in valley outside WF		CB



### Map Legend

-  EIAR Site Boundary
-  Turbine Location
-  500m Buffer of Turbine Location
-  Vantage Point Location
-  Sparrowhawk VP Flight



Map Title	
<b>Sparrowhawk VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-8</b>
Scale	Date
<b>1:20000</b>	<b>05.05.2020</b>

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### Map Legend

- EIAR Site Boundary
- Turbine Location
- 2km Survey Radius
- Sparrowhawk Observations



Map Title  
**Sparrowhawk Breeding Raptor Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-4-3</b>
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Scale <b>1:40000</b>	Date <b>05.05.2020</b>
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Table 12 Kestrel Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
K001	25/04/2018	3	Kestrel	1	17:30	45		45			PB2, (Upland blanket bog) Hovering and Hunting	J. Meade
K002	30/04/2018	2	Kestrel	1	14:35	70	50	20			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hovering and Hunting	J. Meade
K003	01/06/2018	2a	Kestrel	1	08:13	214		183	31		HH1, (Dry siliceous heath) WD4, (Conifer plantation) Foraging	CC
K004	02/06/2018	2a	Kestrel	1	15:01	41	24	17			HH1, (Dry siliceous heath) WD4, (Conifer plantation) Foraging	CC
K005	18/07/2018	1a	Kestrel	1	12:01	42	5	20	17	0	WD4, (Conifer plantation) FLYING, FORAGING	Ciaran Cronin
K006	19/07/2018	2a	Kestrel	1	07:12	212	28	139	45	0		Ciaran Cronin
K007	19/07/2018	3c	Kestrel	1	10:33	83	16	67	0	0	GA1, (Improved agricultural grassland) FORAGING	Ciaran Cronin
K008	22/08/2018	3	Kestrel	1	14:49	35					PB2, (Upland blanket bog) travelling	TR
K009	23/08/2018	2	Kestrel	1	14:08	7		7			PB2, (Upland blanket bog) ER2, (Exposed calcareous rock) Circling/travelling	TR
K010	24/08/2018	1	Kestrel	1	10:40	45	5	40			ER2, (Exposed calcareous rock) PB2, (Upland blanket bog) Hunting	TR
K011	24/09/2018	2A	Kestrel	1	11:02	"150"	"30"	"120"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K012	28/09/2018	3A	Kestrel	1	09:50	"25"		"30"			PB2, (Upland blanket bog) WD4, (Conifer plantation) In Flight	TK
K013	20/10/2018	2a	Kestrel	1	15:33	"150"		"150"			PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting	TK
K014	22/10/2018	3a	Kestrel	1	13:15	"30"		"30"			PB2, (Upland blanket bog) In flight	TK
K015	26/10/2018	1A	Kestrel	1	17:33	"90"		"90"			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
K016	12/11/2018	2a	Kestrel	1	12:15	33		33			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting and hovering	JM
K017	19/11/2018	3a	Kestrel	1	11:12	45		20	25		WD4, (Conifer plantation) PB2, (Upland blanket bog) Male hunting	JM
K018	21/11/2018	1a	Kestrel	1	09:05	12		12			PB2, (Upland blanket bog) Hovering then flying to east	JM
K019	03/12/2018	3a	Kestrel	1	09:25	45		45			PB2, (Upland blanket bog) Hunting and hovering	JM
K020	06/12/2018	2a	Kestrel	1	09:20	42		42			PB2, (Upland blanket bog) Hovering and hunting north along the river	JM
K021	07/01/2019	3a	Kestrel	1	09:25	45		45			PB2, (Upland blanket bog) Hunting and hovering	JM
K022	28/01/2019	1a	Kestrel	1	13:05	32		32			PB2, (Upland blanket bog) Hunting and hovering	JM
K023	09/02/2019	VP 1	Kestrel	1	13:23	223		223			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K024	09/02/2019	VP 1	Kestrel	1	13:42	95		95			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K025	11/02/2019	VP 2	Kestrel	1	17:48	146	20	126			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K026	07/03/2019	VP1	Kestrel	1	13:33	218	41	187			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K027	06/04/2019	VP 1	Kestrel	1	15:05	25		25			WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	TK
K028	09/04/2019	VP 3	Kestrel	1	15:40	96		96			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K029	09/04/2019	VP 3	Kestrel	1	16:15	112		112			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K030	30/04/2019	VP 2	Kestrel	1	17:05	96	20	76			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK
K031	30/04/2019	VP 2	Kestrel	1	20:37	167	10	157			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	TK

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
K032	11/06/2019	3	Kestrel	1	13:07	58		58			GA1, (Improved agricultural grassland) Travelling/Hunting	JK
K033	05/07/2019	3	Kestrel	1	11:21	76		76			GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting and hovering	JK
K034	05/07/2019	3	Kestrel	1	12:07	117		117			GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hunting and hovering	JK
K035	21/10/2019	1	Kestrel	1	16:42			63			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	JK
K036	21/10/2019	1	Kestrel	1	18:10				32		PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling	JK
K037	22/10/2019	3	Kestrel	1	15:12			58			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	JK
K038	28/11/2019	3	Kestrel	1	12:28	78			78		GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hovering / Hunting	JK
K039	28/11/2019	3	Kestrel	1	09:20	47		47			GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Hovering / Hunting	JK
K040	17/12/2019	2	Kestrel	1	12:09	46		46			PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling	JK
K041	30/01/2020	3	Kestrel	1	12:38	44		44			GA1, (Improved agricultural grassland) WD4, (Conifer plantation)	JK
K042	30/01/2020	3	Kestrel	1	12:51	32		32			GA1, (Improved agricultural grassland) WD4, (Conifer plantation)	JK
K043	30/01/2020	3	Kestrel	1	13:09	48		48			GA1, (Improved agricultural grassland) WD4, (Conifer plantation)	JK
K044	17/02/2020	2	Kestrel	1	16:05	54		54			WD4, (Conifer plantation) HD1, (Dense bracken) Soaring/travelling	JK
K045	20/02/2020	3	Kestrel	1	13:22	44		44			GA1, (Improved agricultural grassland) HD1, (Dense bracken) Hunting and hovering	JK
K046	20/02/2020	3	Kestrel	1	14:07	58		58			GA1, (Improved agricultural grassland) HD1, (Dense bracken) Hunting and hovering	JK



Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
K047	20/02/2020	3	Kestrel	1	14:55	37		37			GA1, (Improved agricultural grassland) HD1, (Dense bracken) Hunting and hovering	JK
K048	20/02/2020	3	Kestrel	1	16:35	49		49			GA1, (Improved agricultural grassland) HD1, (Dense bracken) Hunting and hovering	JK

Breeding Bird Survey									
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Sex/age	Habitat and Activity	Comments	Surveyor	
K0001	13/05/2019	13:48:00	Kestrel	1	Male	PB2, (Upland blanket bog) Hunting		JK	
K0002	14/06/2019	12:22:00	Kestrel	1		GA1, (Improved agricultural grassland) WD4, (Conifer plantation)		JK	
K0003	20/06/2019	15:07:00	Kestrel	1		GA1, (Improved agricultural grassland)		JK	
K0004	04/07/2019	11:47:00	Kestrel	5	Pair+Juv	GA1, (Improved agricultural grassland) Soaring/ Hovering		JK	

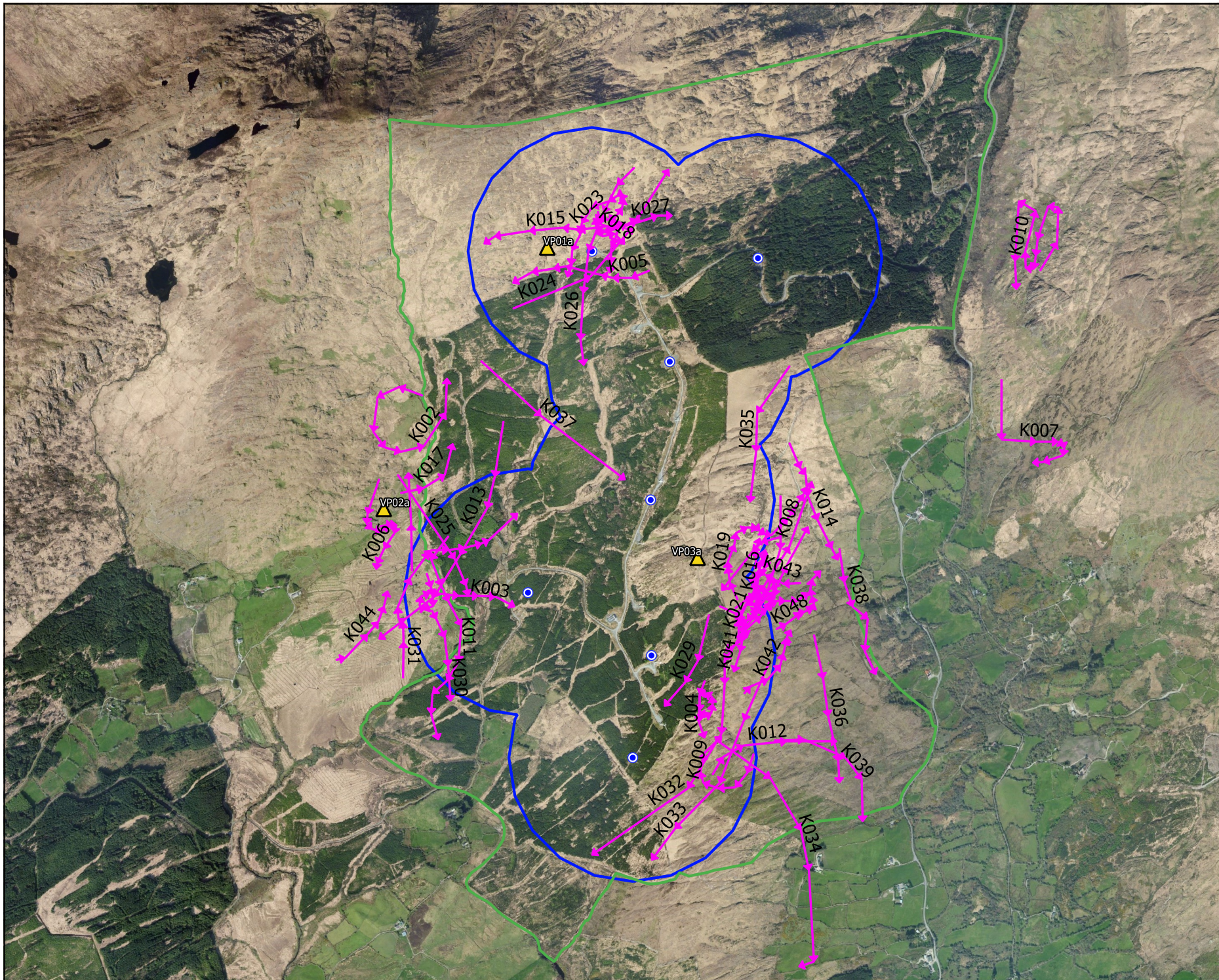
Breeding Raptor Survey								
Map Ref.	Date	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Surveyor	
K001	25/04/2018	Kestrel	1	15:09:00	45	(Mixed) broadleaved woodland Hunting over deciduous woodland	CB	
K002	26/04/2018	Kestrel	1	09:23:00	240	GS4, (Wet grassland) Hunting over rough grazing	CB	
K003	16/05/2018	Kestrel	1	09:20:00	60	(Mixed) broadleaved woodland GS4, (Wet grassland) GA1, (Improved agricultural grassland) Hunting & flying in the valley SW of Kealkill wind farm	CB	
K004	16/05/2018	Kestrel	1	15:18:00	420	GS4, (Wet grassland) PB4, (Cutover bog) Female hunting outside wind farm at c25m height over degraded, overgrazed bog	CB	
K005	16/05/2018	Kestrel	1	15:40:00	4	PB4, (Cutover bog) Female hunting inside site briefly, below 25m	CB	

Breeding Raptor Survey							
Map Ref.	Date	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Surveyor
K006	16/05/2018	Kestrel	1	16:38:00	60	PB4, (Cutover bog) GS4, (Wet grassland) Soaring & hunting outside windfarm	CB
K007	19/07/2018	Kestrel	1	15:37:00	137	PB4, (Cutover bog) Flew NE over rough grazing/cutover bog	CB
K008	28/04/2019	Kestrel	1	10:32:00	224	PB2, (Upland blanket bog) GS4, (Wet grassland) WD4, (Conifer plantation) Hunting	TK
K009	03/05/2019	Kestrel	1	11:20:00	95	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	JK
K010	03/05/2019	Kestrel	1	14:10:00	170	PB3, (Lowland blanket bog) Hovering Hunting	JK
K011	05/06/2019	Kestrel	1	11:36:00	278	PB2, (Upland blanket bog) GA1, (Improved agricultural grassland)	JK
K012	05/06/2019	Kestrel	1	12:07:00	118	PB3, (Lowland blanket bog) GA1, (Improved agricultural grassland)	JK
K013	18/06/2019	Kestrel	1	14:21:00	76	PB2, (Upland blanket bog) GA1, (Improved agricultural grassland)	JK

Winter Transect Survey							
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Habitat and Activity	Surveyor	
K0001	10/12/2018	Non-breeding	Kestrel	1	PB2, (Upland blanket bog) Hunting and hovering	JM	
K0002	21/01/2019	Non-breeding	Kestrel	1	PB2, (Upland blanket bog) Hunting and hovering	JM	
K0003	16/01/2020	11:24:00	Kestrel	1	GA1, (Improved agricultural grassland) Hunting	JK	
K0004	16/01/2020	14:05:00	Kestrel	1	GA1, (Improved agricultural grassland) Travelling	JK	
K0005	27/03/2020		Kestrel	1	WD4, (Conifer plantation) Hunting/ hovering over young plantation	MOC	

Incidental Observation							
Date	Survey Type	Location	Species	No. of Birds	Notes	Surveyor	Ref
06/12/2018	Hen harrier roost	4	Kestrel	1	Male flying SE 15:58	JM	K001

Incidental Observation							
Date	Survey Type	Location	Species	No. of Birds	Notes	Surveyor	Ref
05/02/2019	Hen harrier roost	3	Kestrel	1	hunting 16:57	TK	K002
07/03/2019	Hen harrier roost	3	Kestrel	1	Male hunting 10m above ground	TK	K003
07/03/2019	Hen harrier roost	3	Kestrel	1	male hunting 10-12m above ground	TK	K004
24/03/2020	Red Grouse Survey		Kestrel	1	Hunting along conifer edge and over heath.	JC	K005
04/03/2020	Hen harrier roost	HHVP 3	Kestrel	1	Hunting 17:28	TK	K006
04/03/2020	Hen harrier roost	HHVP 3	Kestrel	1	In flight 17:41	TK	K007



### Map Legend

- EIA Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Kestrel VP Flight

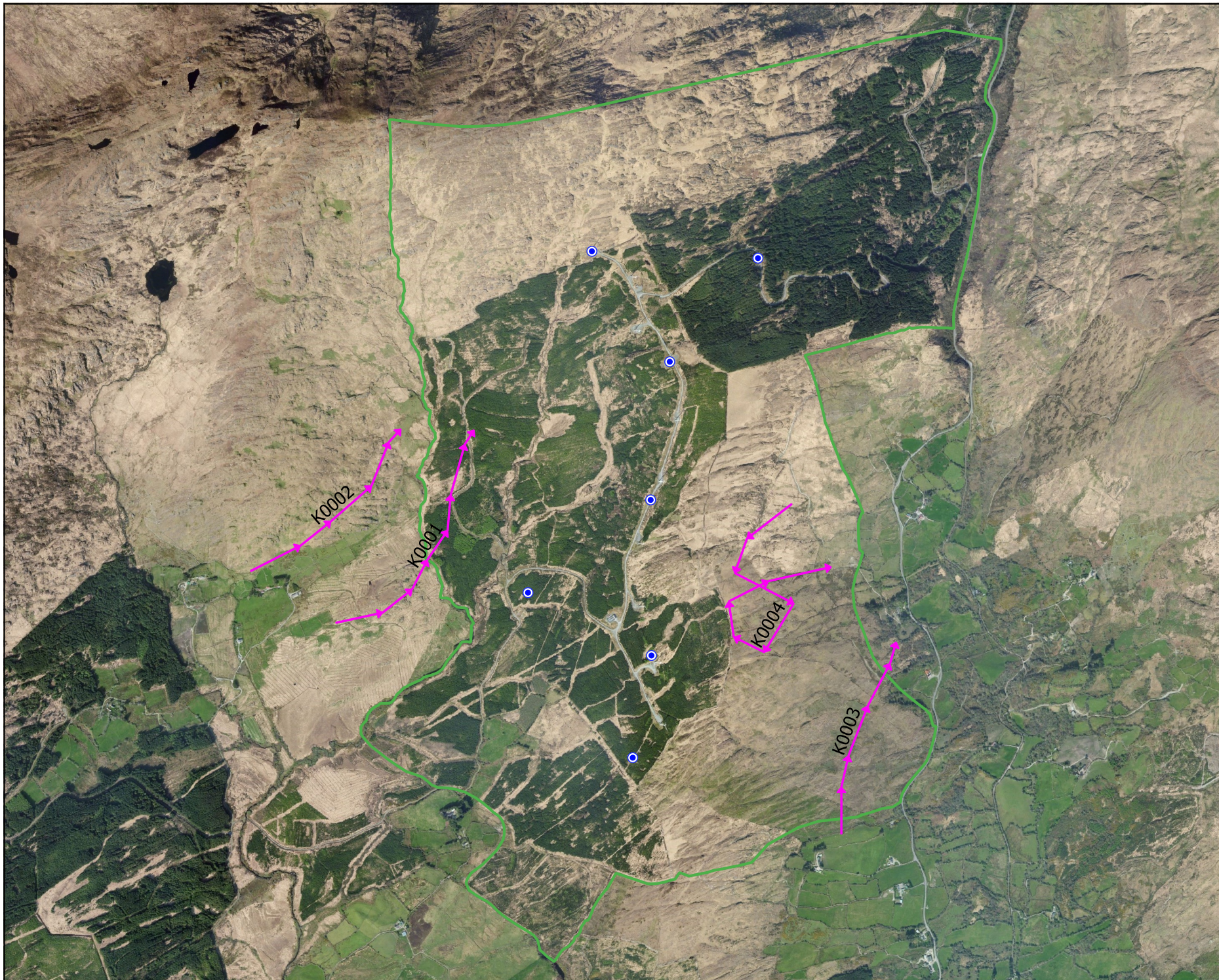


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<b>Map Title</b> <b>Kestrel VP Flights</b> <b>(April 2018 - March 2020)</b>	
<b>Project Title</b> <b>Curraglass Renewable Energy</b> <b>Development, Co. Cork</b>	
<b>Drawn By</b> <b>Margaux Pierrel</b>	<b>Checked By</b> <b>Padraig Cregg</b>
<b>Project No.</b> <b>190301</b>	<b>Map No.</b> <b>Fig 7-1-9</b>
<b>Scale</b> <b>1:20000</b>	<b>Date</b> <b>05.05.2020</b>



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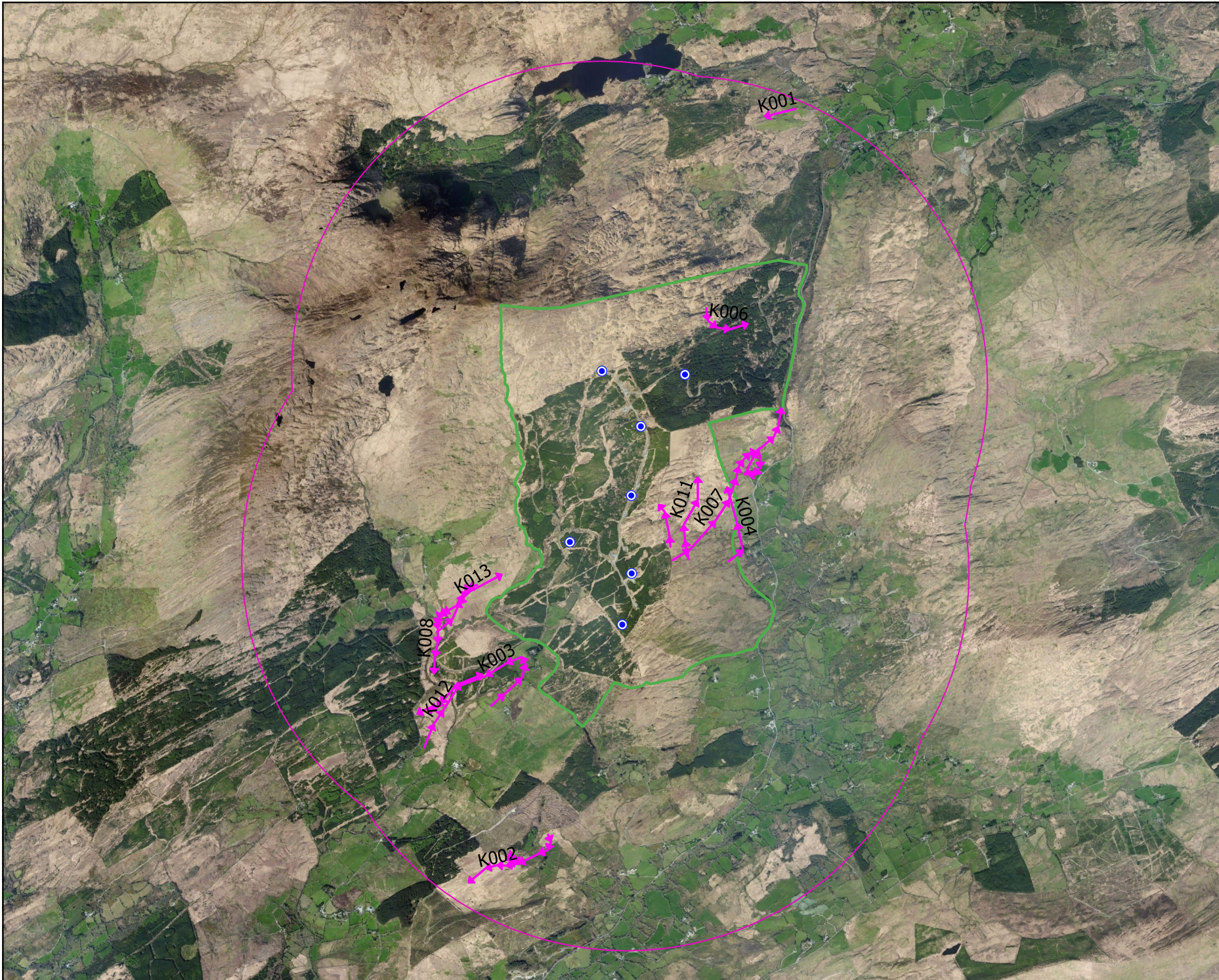
### Map Legend

- EIA Site Boundary
- Turbine Location
- Kestrel Observations



Map Title	
<b>Kestrel Breeding Bird Survey Observations</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-3-4</b>
Scale	Date
<b>1:20000</b>	<b>05.05.2020</b>
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### Map Legend

- EIAR Site Boundary
- Turbine Location
- 2km Survey Radius
- ➔ Kestrel Observations



Map Title  
**Kestrel Breeding Raptor Survey Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

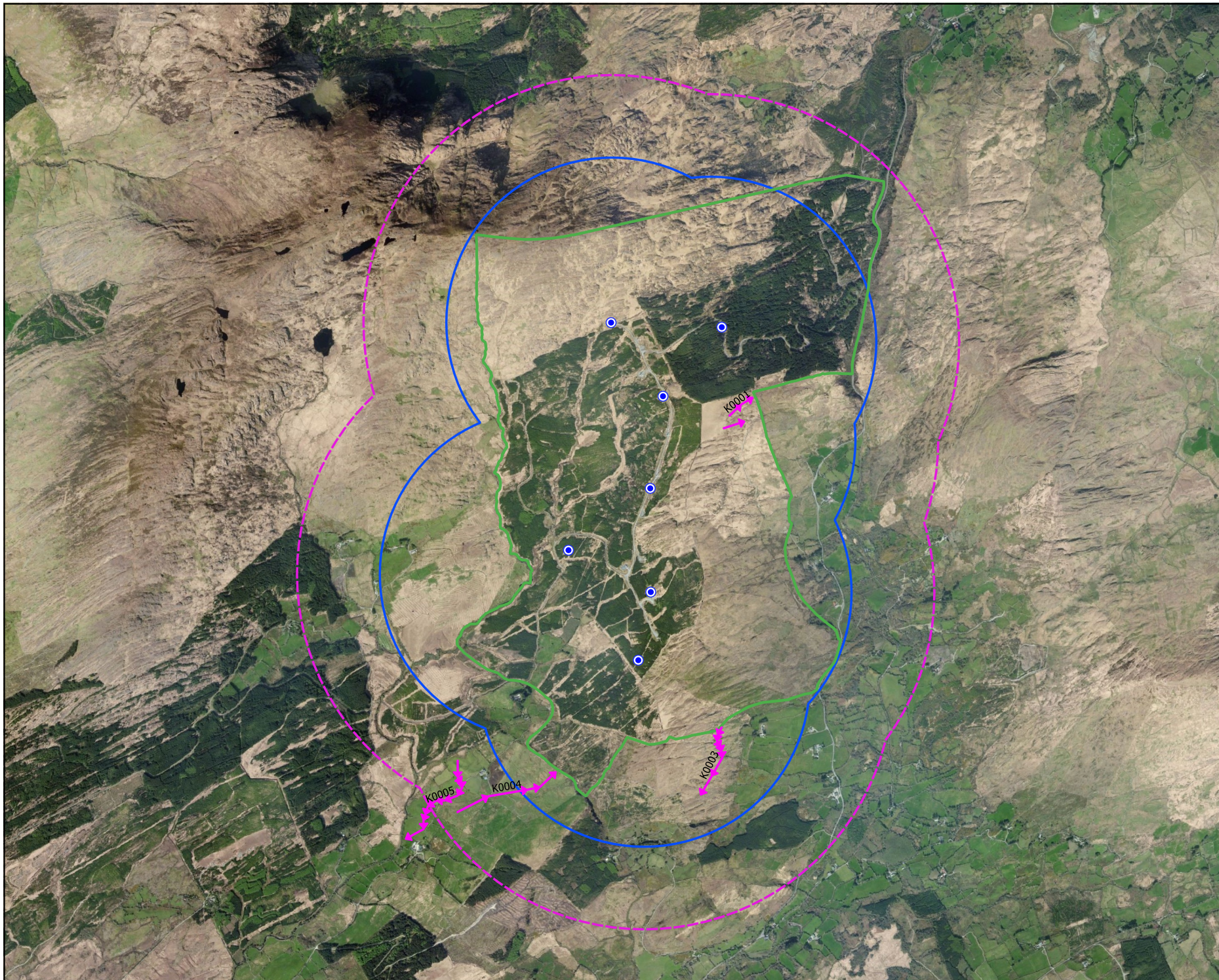
Drawn By: **Margaux Pierrel**      Checked By: **Padraig Cregg**

Project No.: **190301**      Map No.: **Fig 7-4-4**

Scale: **1:40000**      Date: **05.05.2020**

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### Map Legend

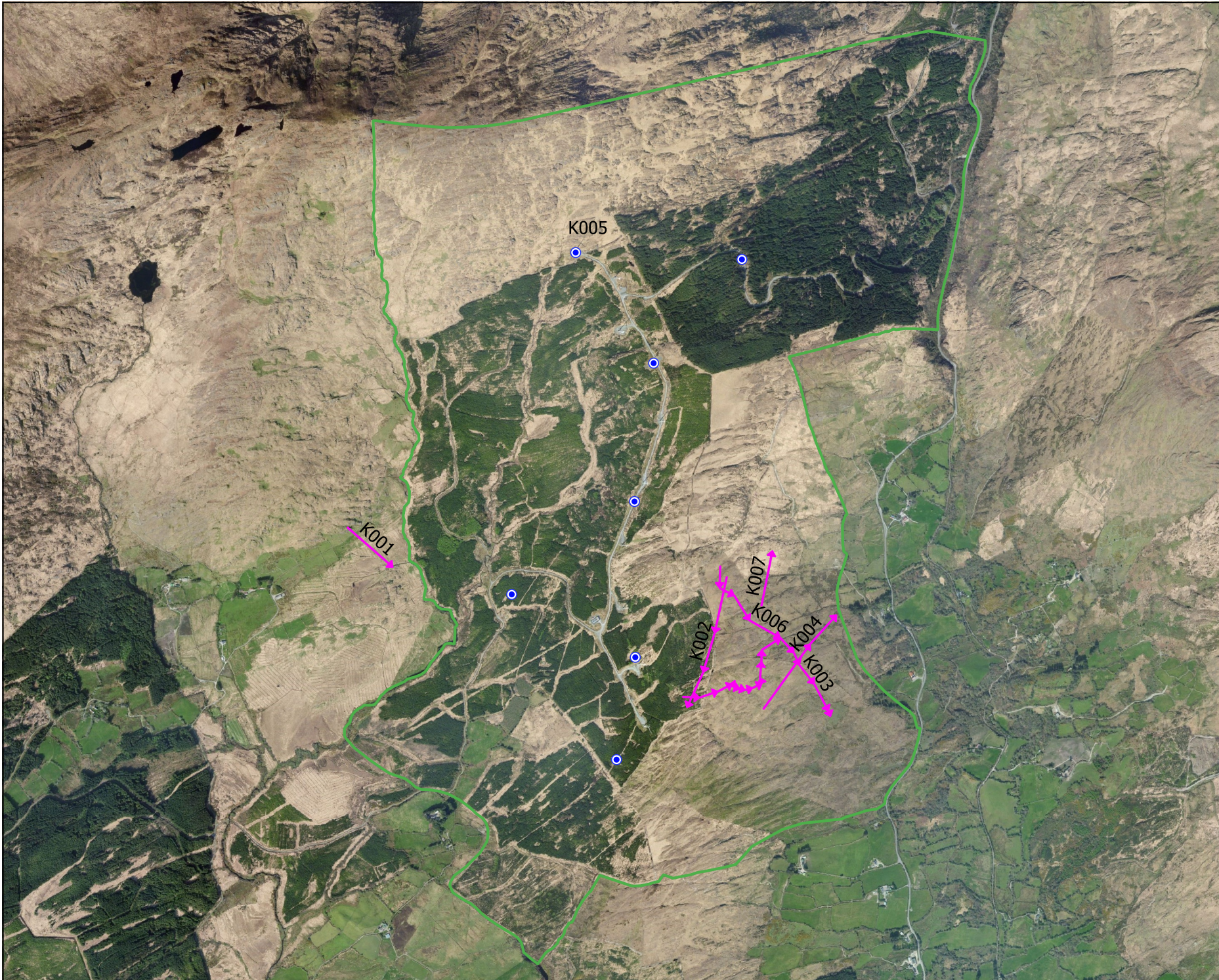
- EIAR Site Boundary
- Turbine Location
- Winter Transect Survey Area (500m)
- Waterfowl Survey Area (1km)
- Kestrel Observation



Map Title	
<b>Kestrel Winter Transect Survey Observations</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-8-3</b>
Scale	Date
<b>1:30000</b>	<b>06.05.2020</b>

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### Map Legend

- EIAR Site Boundary
- Turbine Location
- Kestrel Observation



Map Title  
**Kestrel Incidental Observations**

Project Title  
**Curraglass Renewable Energy Development, Co. Cork**

Drawn By <b>Margaux Pierrel</b>	Checked By <b>Padraig Cregg</b>
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Project No. <b>190301</b>	Map No. <b>Fig 7-9-5</b>
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Scale <b>1:20000</b>	Date <b>06.05.2020</b>
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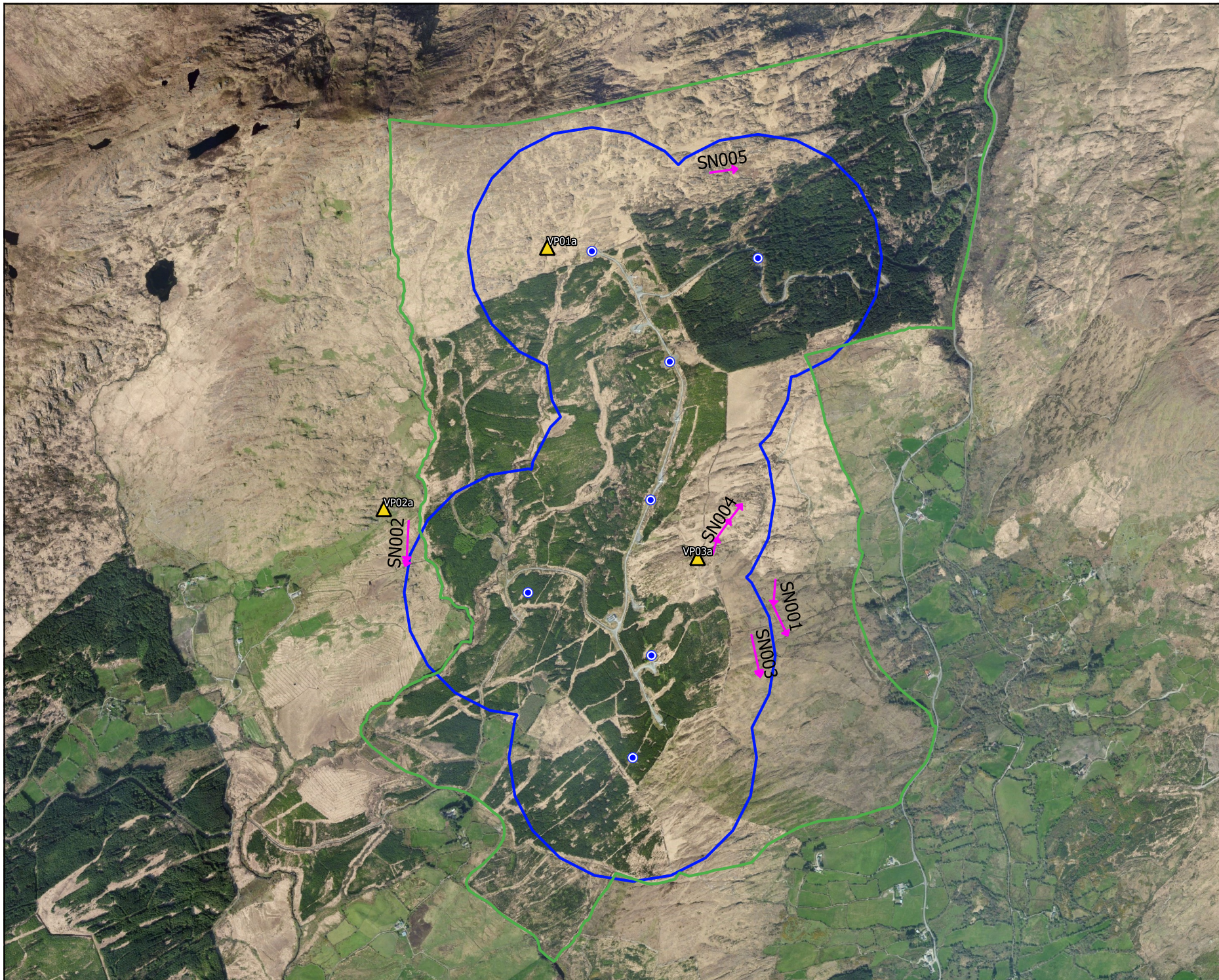
Table 13 Common Snipe Survey Data

Vantage Point Survey												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
SN001	01/06/2018	3c	Common Snipe	1	14:18	40	2	7	31			CC
SN002	12/11/2018	2a	Common Snipe	2	09:32	21		21			PB2, (Upland blanket bog) Pair flying from bog	JM
SN003	19/11/2018	3a	Common Snipe	2	13:11	35	20	15			PB2, (Upland blanket bog) Pair flying near bog	JM
SN004	07/01/2019	3a	Common Snipe	1	11:40	35		35			PB2, (Upland blanket bog) Travelling over bog	JM
SN005	28/01/2019	1a	Common Snipe	2	10:46	15	15				PB2, (Upland blanket bog) Pair flying from bog	JM

Waterfowl Distribution Survey					
Date	Location	Species	Number of birds	Notes on habitat and activity	GPS
17/12/2018	Foilastokeen	Common Snipe	2	PB4, (Cutover bog) Flew over bog and landed on bog	JM

Winter Transect Survey						
Map Ref.	Survey Date	Time of observation	Species	Number of birds	Habitat and Activity	Surveyor
SN0001	19/10/2018	11:30:00	Common Snipe	1		TK
SN0002	19/10/2018	12:10:00	Common Snipe	2		TK
SN0003	19/10/2018	12:45:00	Common Snipe	1		TK
SN0004	10/12/2018		Common Snipe	2	PB2, (Upland blanket bog) Flew from bog	JM
SN0005	21/01/2019		Common Snipe	1		JM
SN0006	21/01/2019		Common Snipe	2	PB2, (Upland blanket bog) Flew from bog	JM
SN0007	05/03/2019		Common Snipe	3	PB2, (Upland blanket bog) GS4, (Wet grassland) flushed from ground	TK
SN0008	05/03/2019		Common Snipe	1	PB2, (Upland blanket bog) flushed from ground	TK

Incidental Observation							
Date	Survey Type	Location	Species	Number of Individuals	Notes	Surveyor	Ref
01/06/2018	WK survey	W09147 63282	Snipe	1	22:30 snipe heard W09147 63282	CC	SN001
06/12/2018	Hen harrier roost	4	Snipe	1	Adult flying south near river 3:15	JM	SN002
09/12/2018	Hen harrier roost	1	Snipe	1	Adult seen briefly flying over bog 15:45	JM	SN003
20/03/2019	Red Grouse Survey		Snipe	1		JC	SN004
20/03/2019	Red Grouse Survey		Snipe	1		JC	SN005
20/03/2019	Red Grouse Survey		Snipe	2		JC	SN006
20/03/2019	Red Grouse Survey		Snipe	2		JC	SN007
20/03/2019	Red Grouse Survey		Snipe	1		JC	SN008
20/03/2019	Red Grouse Survey		Snipe	2		JC	SN009
21/03/2019	Red Grouse Survey		Snipe	1		JC	SN010
21/03/2019	Red Grouse Survey		Snipe	5		JC	SN011
23/03/2020	Red Grouse Survey		Snipe	1	Found on section of heath / acid grassland / exposed rock	JC	SN012
23/03/2020	Red Grouse Survey		Snipe	1	Found on section of heath / acid grassland / exposed rock	JC	SN013
24/03/2020	Red Grouse Survey		Snipe	1	Found on section of heath / acid grassland / exposed rock	JC	SN014



### Map Legend

- EIAR Site Boundary
- Turbine Location
- 500m Buffer of Turbine Location
- ▲ Vantage Point Location
- Common Snipe VP Flight



Map Title	
<b>Common Snipe VP Flights (April 2018 - March 2020)</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-1-10</b>
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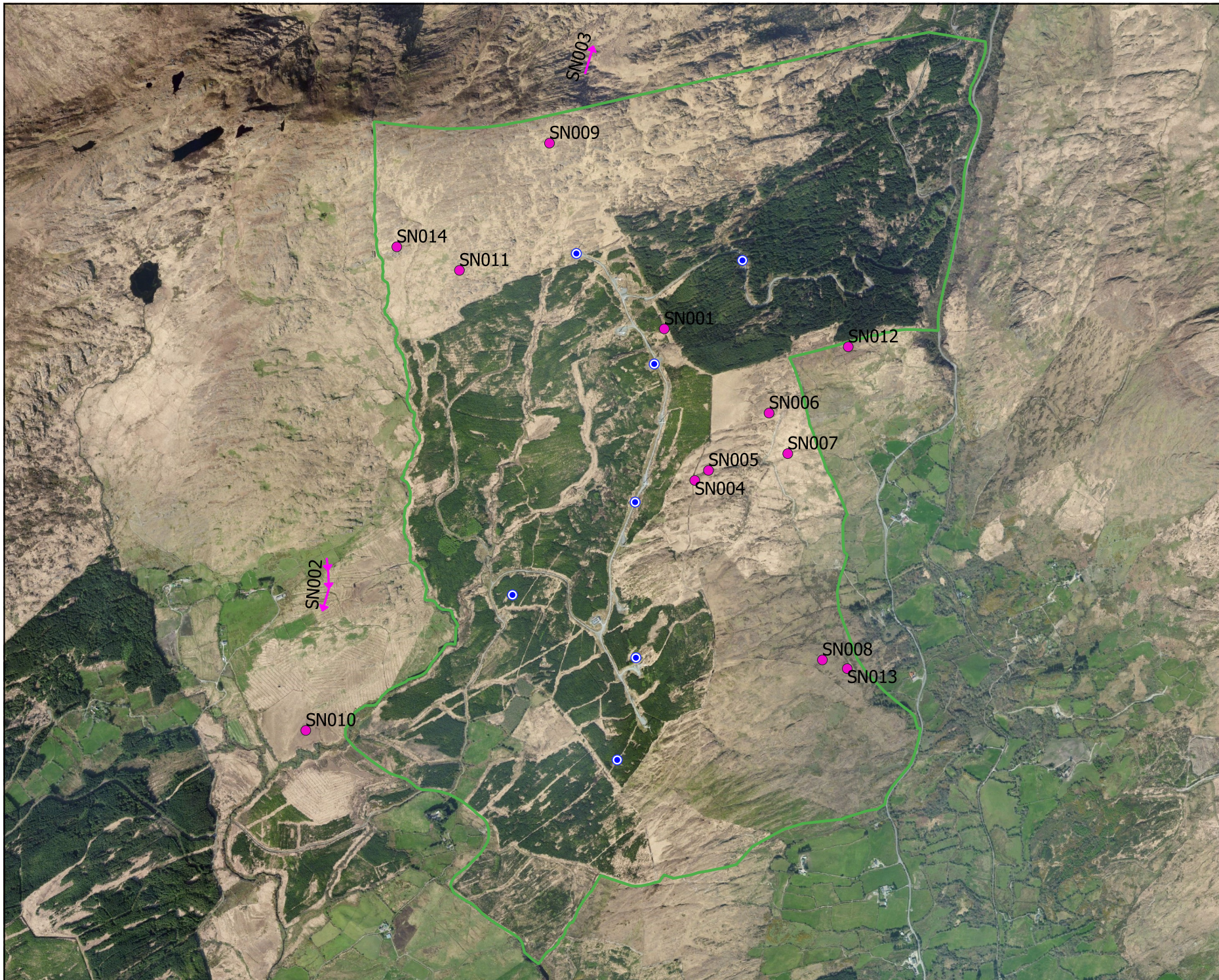
- EIAR Site Boundary
- Turbine Location
- Winter Transect Survey Area (500m)
- Waterfowl Survey Area (1km)
- Common Snipe Observation



Map Title	
<b>Common Snipe Winter Transect/ Waterfowl Survey Observations</b>	
Project Title	
<b>Curraglass Renewable Energy Development, Co. Cork</b>	
Drawn By	Checked By
<b>Margaux Pierrel</b>	<b>Padraig Cregg</b>
Project No.	Map No.
<b>190301</b>	<b>Fig 7-8-4</b>
Scale	Date
<b>1:30000</b>	<b>06.05.2020</b>

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### Map Legend

- EIAR Site Boundary
- Turbine Location
- Common Snipe Observation



<p>Map Title</p> <p><b>Common Snipe Incidental Observations</b></p>	
<p>Project Title</p> <p><b>Curraglass Renewable Energy Development, Co. Cork</b></p>	
<p>Drawn By</p> <p><b>Margaux Pierrel</b></p>	<p>Checked By</p> <p><b>Padraig Cregg</b></p>
<p>Project No.</p> <p><b>190301</b></p>	<p>Map No.</p> <p><b>Fig 7-9-6</b></p>
<p>Scale</p> <p><b>1:20000</b></p>	<p>Date</p> <p><b>06.05.2020</b></p>
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