



APPENDIX 7-4

BIRD SURVEY DATA

Appendix 7-4 – Survey Data

Glenard Wind Farm



Table of Contents

TABLE OF TABLES

<i>Table 1 Golden Eagle Survey Data.....</i>	<i>1</i>
<i>Table 2 Golden Plover Survey Data.....</i>	<i>4</i>
<i>Table 3 Goshawk Survey Data.....</i>	<i>7</i>
<i>Table 4 Hen Harrier Survey Data.....</i>	<i>8</i>
<i>Table 5 Merlin Survey Data.....</i>	<i>19</i>
<i>Table 6 Osprey Survey Data.....</i>	<i>22</i>
<i>Table 7 Peregrine Falcon Survey Data.....</i>	<i>23</i>
<i>Table 8 Red Kite Survey Data.....</i>	<i>26</i>
<i>Table 9 Whooper Swan Survey Data.....</i>	<i>27</i>
<i>Table 10 Black-headed Gull.....</i>	<i>36</i>
<i>Table 11 Common Gull Survey Data.....</i>	<i>46</i>
<i>Table 12 Grey Heron Survey Data.....</i>	<i>52</i>
<i>Table 13 Greylag Goose Survey Data.....</i>	<i>60</i>
<i>Table 14 Herring Gull Survey Data.....</i>	<i>65</i>
<i>Table 15 Mallard Survey Data.....</i>	<i>74</i>
<i>Table 16 Redshank Survey Data.....</i>	<i>81</i>
<i>Table 17 Wigeon Survey Data.....</i>	<i>86</i>
<i>Table 18 Curlew Survey Data.....</i>	<i>89</i>
<i>Table 19 Kestrel Survey Data.....</i>	<i>99</i>
<i>Table 20 Red Grouse Survey Data.....</i>	<i>113</i>
<i>Table 21 Snipe Survey Data.....</i>	<i>114</i>
<i>Table 22 White-tailed Eagle Survey Data.....</i>	<i>123</i>
<i>Table 23 Woodcock Survey Data.....</i>	<i>124</i>
<i>Table 24 Hobby Survey Data.....</i>	<i>127</i>
<i>Table 25 Buzzard Survey Data.....</i>	<i>128</i>
<i>Table 26 Sparrowhawk Survey Data.....</i>	<i>167</i>

Table 1 Golden Eagle Survey Data

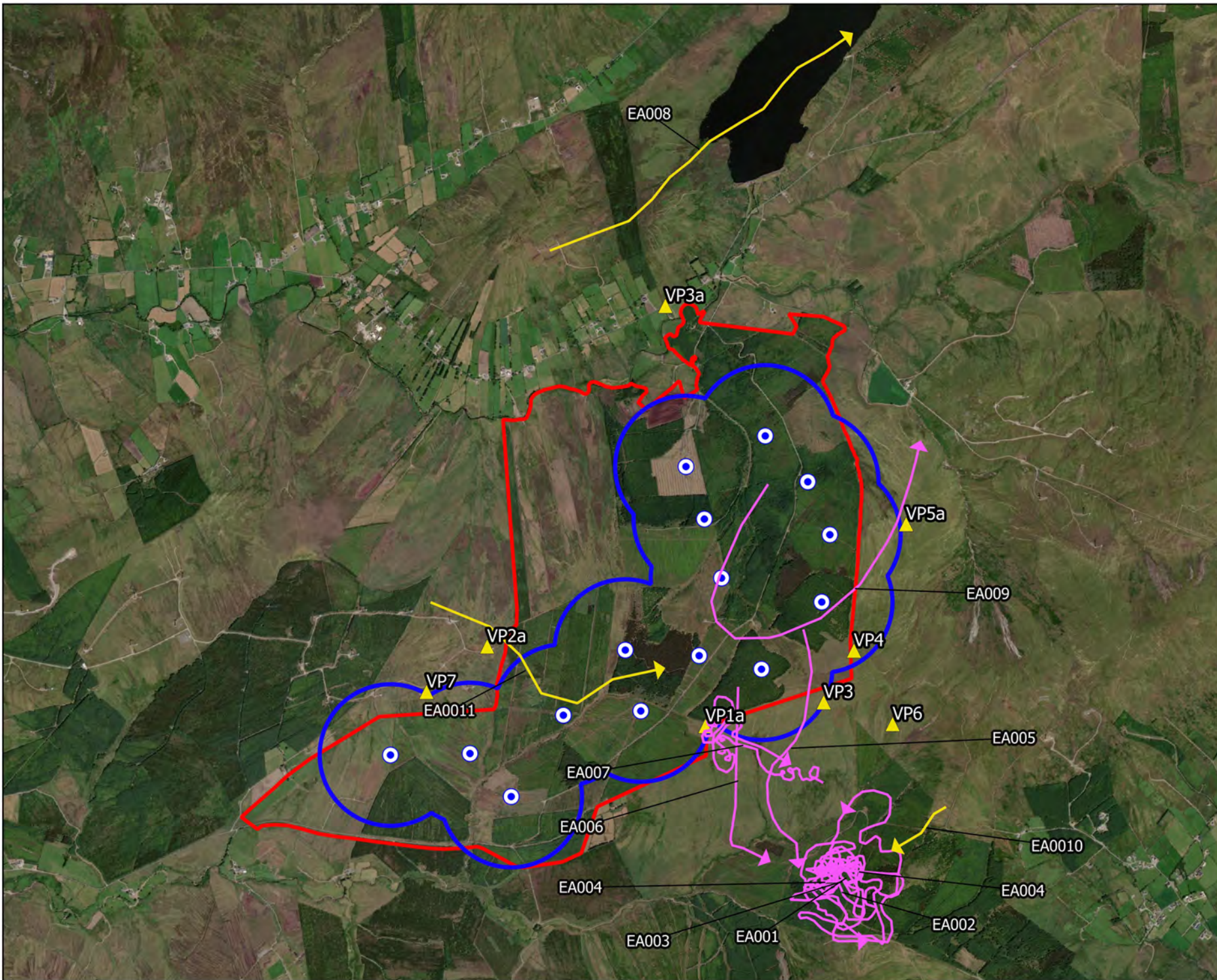
Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
EA001	20/04/2017	VP6	Golden Eagle	1	14:48:00	280	50	230		WD4, (Conifer plantation) flying	Golden Eagle spotted flying low over conifer forest tree-tops, circling and gaining height. Flew slow to sweeping passes, with glides and turns over the forest habitat (mixed tree height / age plantation) finally landing into a clump of tall conifers to perch in tree canopy.	ND
EA002	20/04/2017	VP6	Golden Eagle	1	15:03:00	564	84	480		WD4, (Conifer plantation) HH3, (Wet heath) flying	Subsequent to last observation, Golden Eagle left perch flying low over conifer forest tree-tops, gaining height, circling to 30m to 40m range (variable). Flew slow to sweeping passes, with glides and turns finally landing into the same clump of tall conifers, as previous.	ND
EA003	20/04/2017	VP6	Golden Eagle	1	15:18:00	470	50	420		WD4, (Conifer plantation) HH3, (Wet heath) flying	As previous description; repeat of similar flight activity.	ND
EA004	20/04/2017	VP6	Golden Eagle	1	15:27:00	670	200	430		WD4, (Conifer plantation) HH3, (Wet heath) flying	Similar to previous description; this time the eagle flew broader area, descending low and landing at stream (possibly to drink) for 30 seconds. Finally landed, after stationary airborne flight above the area, outside the edge of conifer forest on Wet heath near sheep feeding station. Sheep with lambs appeared not alarmed.	ND
EA005	24/04/2017	VP4	Golden Eagle	1	10:15:00	126	0	126	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) flying	Golden Eagle flew past rapidly at a height of 30m, pursued and chased by Raven, which continued as far as Owenkillew River valley where RN ceased pursuit	ND
EA006	24/04/2017	VP3	Golden Eagle	1	11:21:00	80	0	80	0	WD4, (Conifer plantation) PB2,	Similar to last obs.: Golden Eagle flew past rapidly at a height of 30m, pursued and chased	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										(Upland blanket bog) flying	by Raven, which continued as far as Owenkillev River valley where RN ceased pursuit	
EA007	26/04/2017	VP2a	Golden Eagle	1	11:09:00	537	27	510		PB2, (Upland blanket bog) WD4, (Conifer plantation) flying	Golden Eagle flew into distant view over skyline to south-east. Flew slowly at a height of 30m to 50m, quartering ground for prey opportunities. Finally, it was spotted and targeted by a Raven which flew from the east at speed and chased the eagle back to the south-east, forcing it to descend and exit rapidly.	ND
EA008	05/01/2018	VP6	Golden Eagle	1	13:09:00	81	0	0	81	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Adult observed from VP6 flying NE above PCH offsite. Soaring above Illies Hill. No tags observed.	AR
EA009	16/08/2018	VP1a	Golden Eagle	1	16:08:00	25		25		WD4, (Conifer plantation) Possible yellow wing tags- over site soaring	Possible yellow wing tags- over site soaring	AOD
EA0010	14/08/2019	VP6	Golden Eagle	1	19:45:00	20				WD4, (Conifer plantation) Flushed		JK
EA0011	16/08/2019	VP1	Golden Eagle	1	20:01:00	20	20			WD4, (Conifer plantation) Travelling for cover from rain shower.		JK

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
EA001	27/07/2019	13:21:00	Golden Eagle	1		No breeding territory here on site. There is an established breeding site within 15km radius. Golden Eagles were recorded here on several occasions on past surveys	ND

Golden Eagle Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Notes on Habitat and Activity		Surveyor
EA001	23/03/2017	09:10:00	Golden Eagle	2	HH3, (Wet heath) PB2, (Upland blanket bog) PB5, (Eroding blanket bog) Pair observed soaring over Urris Hill. Male observed in courtship display passing a stick. Male observed around area for several hours being mobbed by RN, carrying heather and sky-dancing on 3 occasions.		AR
EA001	23/03/2017	14:10:00	Golden Eagle	2	ER3, (Siliceous scree and loose rock) Female reappeared at 14:10 flying/hunting along with male but was chased off by RN. Male landed 3 times on crag and heather. EA were seen in the same area between Urris and Mamore gap for most of the day.		AR

Incidental Observations						
Date	Survey Type	Species	No. of Birds	Notes		Surveyor
17/12/2016	Offsite during VP 6	Golden Eagle	1	11:15 at C423 370. Soaring over vegetation around Slieve Sneacht before going out of sight after 71 seconds.		AR



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title

Golden Eagle Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Fig. 7.1.1

Scale

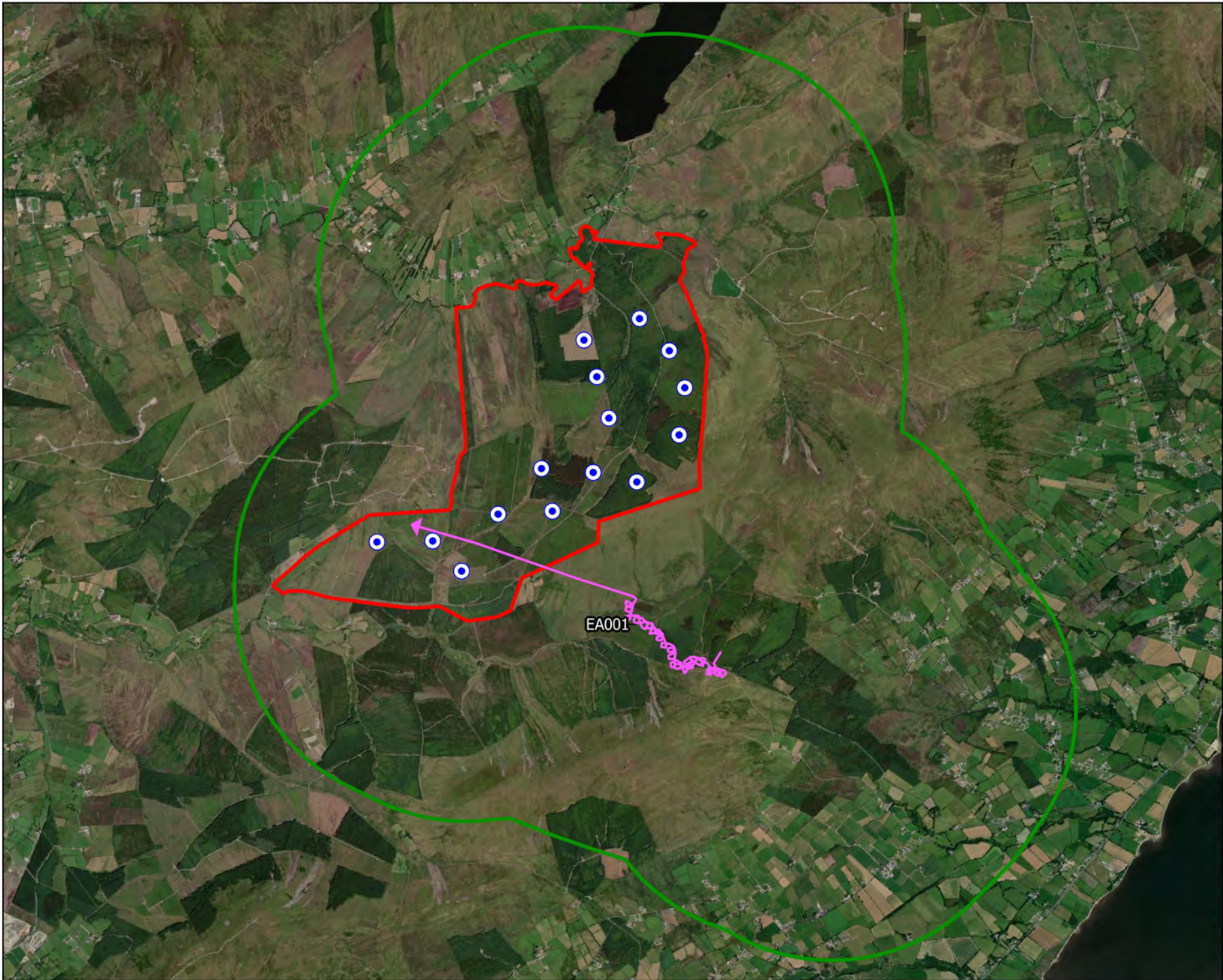
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline



Drawing Title
**Golden Eagle Observations
 Breeding Raptor Surveys**

Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.4.1
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Map Legend

- Wind Farm Site
- Turbine Layout
- ▲ Golden Eagle Survey Location
- Observation



Drawing Title

Golden Eagle Survey
Observations

Project Title

Glenard Windfarm

Drawn By

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Project No.

190114

Drawing No.

Figure 7.7.1

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Table 2 Golden Plover Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
GP001	18/02/2017	VP6	Golden Plover	22	11:41:00	47	0	47	0	PB2, (Upland blanket bog) In flight	Small flock observed flying SE rapidly within PCH	AR
GP002	11/04/2017	VP3	Golden Plover	22	09:06:00	165	0	165	0	PB2, (Upland blanket bog) HH3, (Wet heath) flying	Migrants on passage	ND
GP003	11/04/2017	VP3	Golden Plover	6	10:18:00	75	25	50	0	PB2, (Upland blanket bog) flying	Migrants on passage; as above	ND
GP004	11/04/2017	VP3	Golden Plover	22	10:40:00	140	30	110	0	PB2, (Upland blanket bog) flying	Migrants on passage same flock; as above	ND
GP005	11/04/2017	VP3	Golden Plover	22	10:46:00	190	10	180	0	PB2, (Upland blanket bog) HH3, (Wet heath) flying	Migrants on passage same flock; as above	ND
GP006	11/04/2017	VP3	Golden Plover	22	10:52:00	130	0	130	0	PB2, (Upland blanket bog) flying	Migrants on passage same flock; as above	ND
GP007	20/04/2017	VP6	Golden Plover	16	14:12:00	195		195		PB2, (Upland blanket bog) HH3, (Wet heath) GS4, (Wet grassland) flying	Migrants on passage: Flock of GP made passes over the peak and plateau zone around VP6, and were vocal; flew broad circles (30m to 50m high) before flying out of visual range over skyline to SE	ND
GP008	29/11/2018	VP4	Golden Plover	3	11:46:00	15	15			PB2, (Upland blanket bog) GS4, (Wet grassland) Calling birds flying from ground		AOD
GP009	09/01/2019	VP5	Golden Plover	3	12:36:00	15	15			GS4, (Wet grassland) PB2, (Upland blanket bog) Flushed by HH		AOD
GP0010	28/02/2019	VP6	Golden Plover	3	14:00:00	5	5			GS4, (Wet grassland) HH4, (Montane		AOD

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										heath) Calling small flock flew over VP		

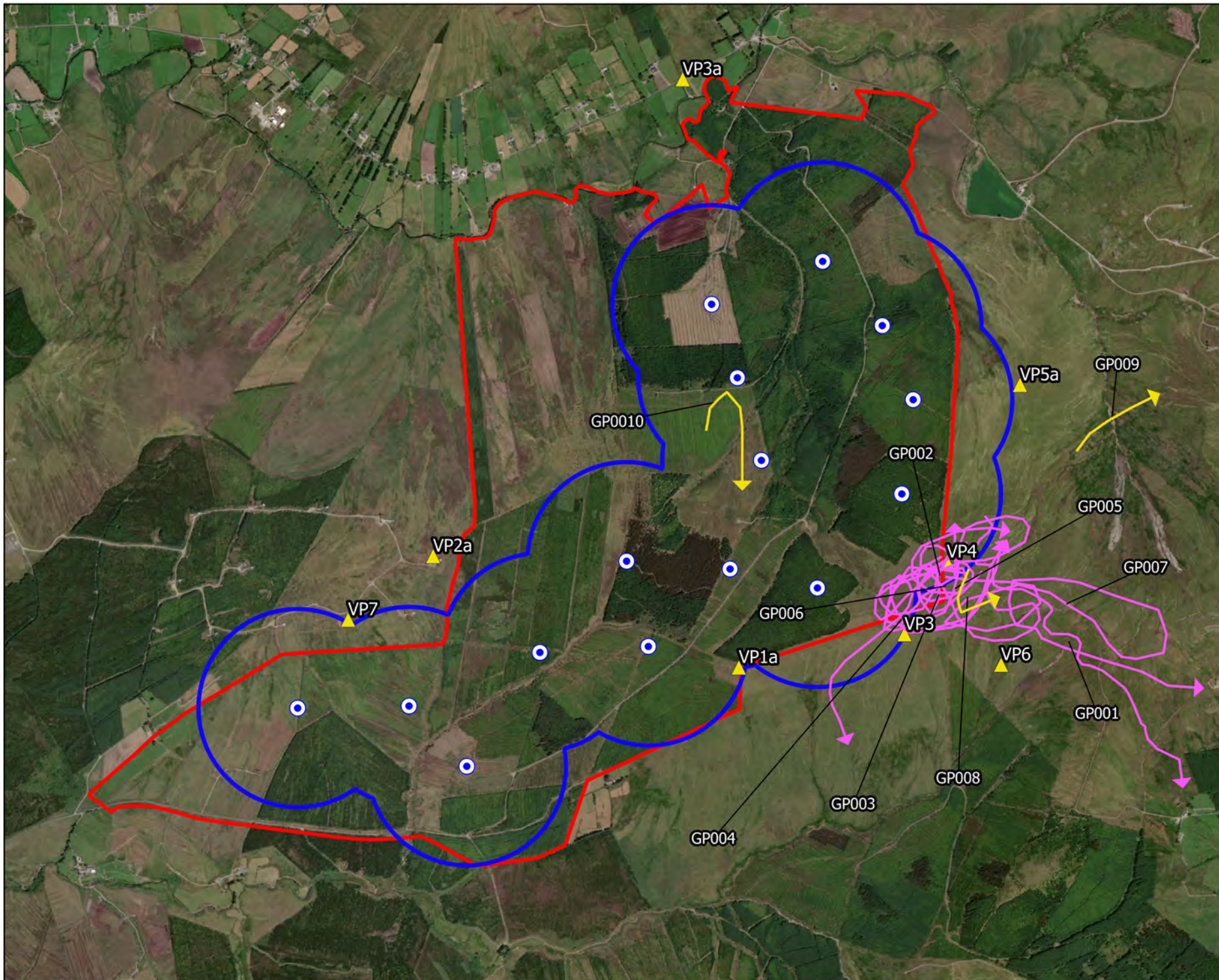
Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
GP001	17/04/2017	12:10	Golden Plover	21	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Suitable nesting habitat; Possible breeder	AR
GP002	18/05/2017	10:10	Golden Plover	6	PB2, (Upland blanket bog) In flight calling	Suitable nesting habitat; Possible breeder	AR

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Notes on habitat and activity	Surveyor
GP001	06/12/2018	12:45:00	Golden Plover	6	Adult	Flushed from near top of Crocknacraaddy	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
30/11/2016	Lough Foyle		Golden Plover	135		MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Golden Plover	12		MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Golden Plover	45		MW2, (Sea inlets and bays)		TR
20/12/2016	Blanket Nook		Golden Plover	75		MW2, (Sea inlets and bays)		TR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
10/02/2017	Lough Foyle		Golden Plover	260	W	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Golden Plover	38	W	MW4, (Estuaries)	Wading	TR
28/02/2017	Lough Foyle		Golden Plover	27	AW	MW4, (Estuaries)	Above Water	TR
28/09/2017	Inch Levels South Hide		Golden Plover	35	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	Inch		Golden Plover	500	OW	MW2, (Sea inlets and bays)	On Water	AOD

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
09/01/2017	Waterfowl Survey	Golden plover			AR
27/01/2017	Waterfowl Survey	Golden plover			AR
10/04/2018	Breeding Raptor Survey	Golden Plover	6	GS4, (Wet grassland) PB2, (Upland blanket bog) fly and call, calling Fleemacrossan mill	AOD



Map Legend

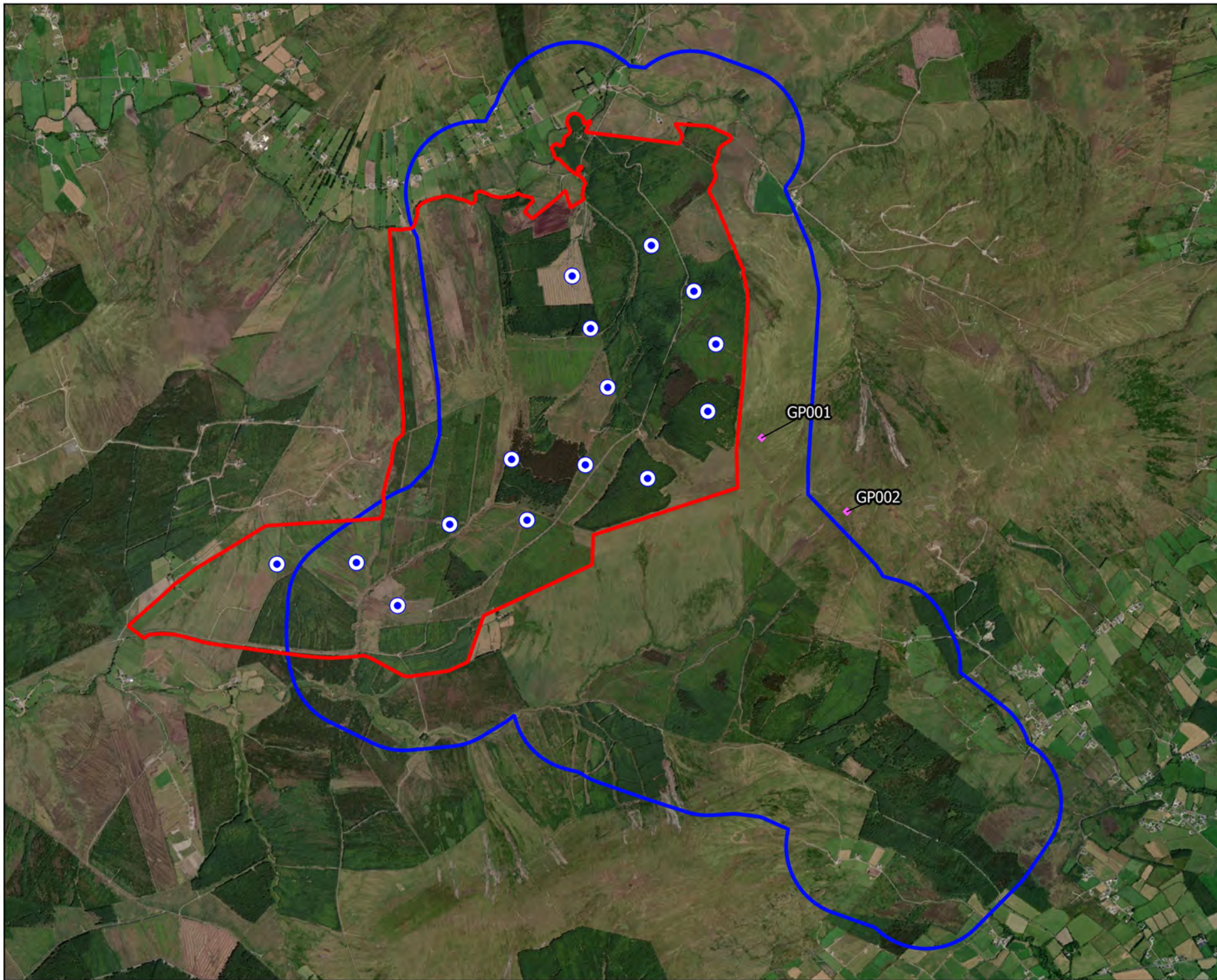
- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



North

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Drawing Title Golden Plover Observations Vantage Point Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.2
Scale 1:25000	Date 10/11/2021
	
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observation



Drawing Title

Golden Plover Observations
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.3.1

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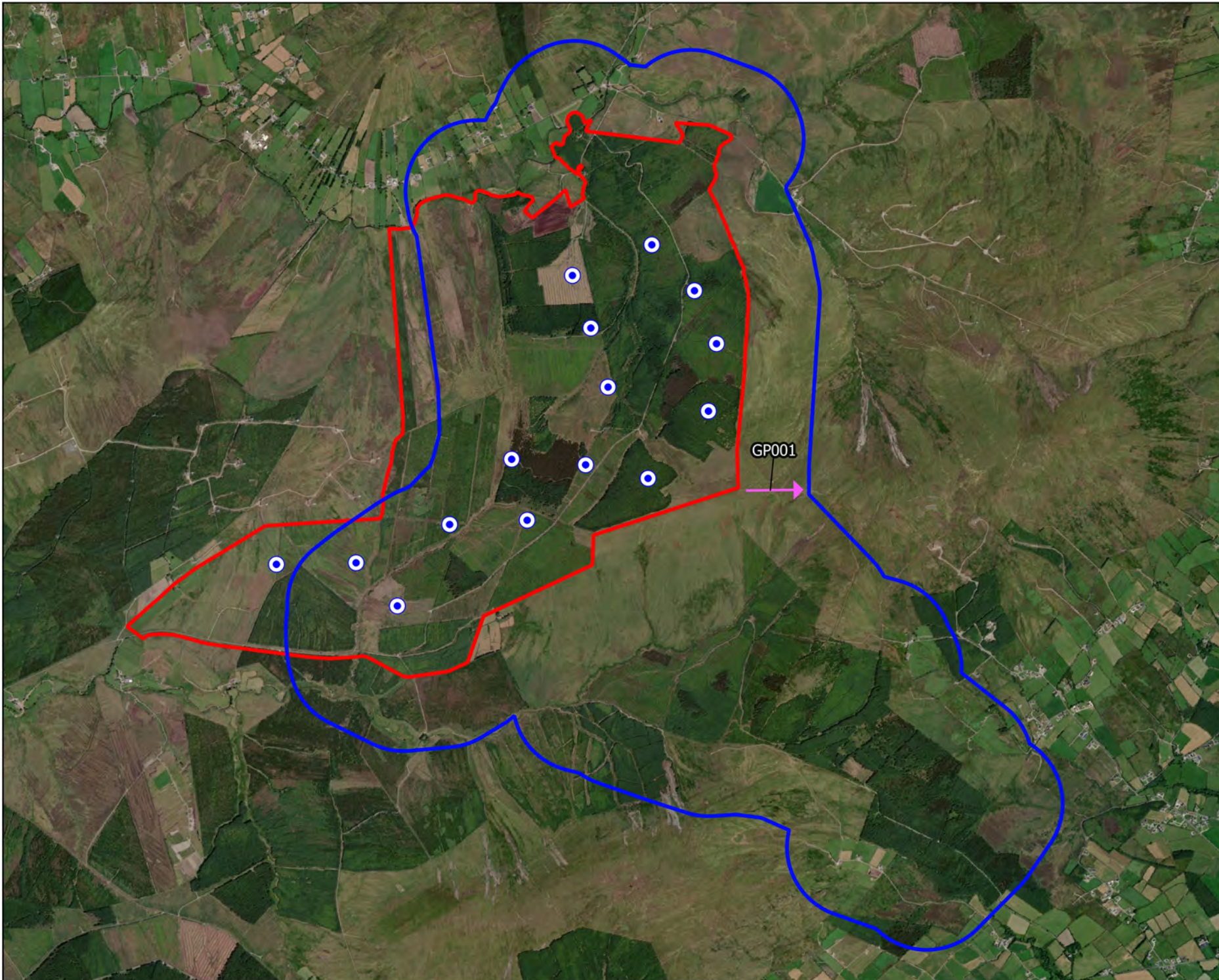
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Date

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Map Legend

-  Wind Farm Site
-  Turbine Layout
-  Walkover Survey Area
-  Flightline

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Drawing Title
**Golden Plover Observations
 Winter Walkover Surveys**

Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Table 3 Goshawk Survey Data

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
21/11/2018	HHVP6	Goshawk	1	Male goshawk flying treetop height behind hhvp6 just off site at 15:30	AOD

Table 4 Hen Harrier Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
HH001	09/10/2016	VP3	Hen Harrier	1	08:35:00	85	16	69	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Hunting, Travelling through site.	Emerged over glen before ascending due to surveyor being present. Female ringtail.	AR
HH002	23/10/2016	VP4	Hen Harrier	1	10:02:00	21	17	4	0	WD4, (Conifer plantation) HH3, (Wet heath) Male flying along woodland edge	Male observed flying along woodland edge rising into PCH briefly before going out of sight, possibly landing behind trees	AR
HH003	30/10/2016	VP6	Hen Harrier	1	10:07:00	41	41	0	0	WD4, (Conifer plantation) WL2, (Treelines) In flight	Male observed flying along forest edge dropping below treeline occasionally	AR
HH004	06/11/2016	VP3	Hen Harrier	1	16:15:00	40	35	5	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	1 adult male observed hunting low to ground. Going out of sight over brow of hill.	AR
HH005	06/12/2016	VP3	Hen Harrier	1	11:30:00	72	45	27	0	PB2, (Upland blanket bog) WS5, (Recently felled woodland) In flight, hunting	Female hunting over glen flying within PCH over clear-fell.	AR
HH006	06/12/2016	VP3	Hen Harrier	1	12:00:00	32	32	0	0	PB2, (Upland blanket bog) HH3, (Wet heath) In flight over glen	Female in flight low over vegetation at the bottom of glen. Possibly same female as 11:30 record.	AR
HH007	13/12/2016	VP4	Hen Harrier	1	09:31:00	61	42	19	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male observed hunting, flying over forestry then flying low to the ground out of sight	AR
HH008	17/01/2017	VP5a	Hen Harrier	1	15:31:00	110	40	70	0	PB2, (Upland blanket bog) HH3, (Wet heath) Hunting	Adult male observed hunting offsite over heathland. Flying rapidly and low to the ground.	AR
HH0024	05/03/2017	VP5	Hen Harrier	1	14:46:00	82	0	82	0	HH3, (Wet heath) WD4, (Conifer plantation) In flight	Adult male observed in flight within PCH along treeline. Flew	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
											below view line to the east of the site.	
HH0025	19/03/2017	VP2	Hen Harrier	1	15:36:00	51	0	51	0	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Female observed flying NW over site within PCH.	AR
HH009	16/07/2017	VP1a	Hen Harrier	1	16:34:00	111		111		WD4, (Conifer plantation) Male, Hunting		PM
HH0010	05/08/2017	VP6	Hen Harrier	1	11:05:00	105	105	0	0	PB2, (Upland blanket bog) Hunting	Adult female observed in flight hunting low to the ground. Flying west being chased off by 6 HC.	AR
HH0011	29/10/2017	VP1a	Hen Harrier	1	11:14:00	113	70	43	0	PB2, (Upland blanket bog) Hunting	Adult female hunting low to the ground. Flying west offsite towards Meenyanly.	AR
HH0012	11/11/2017	VP4	Hen Harrier	1	13:18:00	144	0	144	0	WD4, (Conifer plantation) In flight	Adult male flying west over forestry in PCH. Flew behind treeline	AR
HH0013	03/03/2018	VP6	Hen Harrier	1	14:02:00	104	104	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Adult male emerged from treeline. Flew low over forestry and out of sight.	AR
HH0014	20/03/2018	VP4	Hen Harrier	1	15:20:00	49	49	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Circled over plantation up to 15m then hunted over bog at 1-2m	Adult Male	RW
HH0015	07/05/2018	VP4	Hen Harrier	1	20:13:00	45	45			PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Foraging high over habitat terrain		ND
HH0016	07/05/2018	VP4	Hen Harrier	1	20:48:00	5	5			PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Hunting		ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
HH0017	07/05/2018	VP4	Hen Harrier	1	21:00:00	2	2			PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Hunting		ND
HH0018	16/08/2018	VP1a	Hen Harrier	1	18:00:00	180	180			PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting low		AOD
HH0019	30/08/2018	VP6	Hen Harrier	1	12:10:00	280	100			PB2, (Upland blanket bog) Hunting mp flock between sites		AOD
HH0020	20/09/2018	VP4	Hen Harrier	1	09:12:00	140	140			PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting along site boundary	Hunting along site boundary	AOD
HH0021	26/09/2018	VP6	Hen Harrier	1	08:21:00	20	20			PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting, flew up from possible new roost	Hunting, flew up from possible new roost	AOD
HH0022	26/09/2018	VP6	Hen Harrier	1	09:21:00	45				PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting near same possible roost	Hunting near same possible roost	AOD
HH0023	26/09/2018	VP6	Hen Harrier	1	09:35:00	300	260	40		PB2, (Upland blanket bog) GS4, (Wet grassland) WD4, (Conifer plantation) Hunting then perched then continued criss-crossing open area between sites	Hunting then perched then continued criss-crossing open area between sites	AOD
HH0026	20/10/2018	VP6	Hen Harrier	1	15:44:00	191	191	0	0	GS4, (Wet grassland) PB2, (Upland blanket bog) Hunting	Female in flight/ Hunting low to the ground over glen. Towards Meenyanly.	AR
HH0027	29/11/2018	VP4	Hen Harrier	1	11:41:00	32	32			PB2, (Upland blanket bog) GS4, (Wet grassland) Adult female hunting near top of Crocknacradly		AOD

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
HH0028	20/12/2018	VP2	Hen Harrier	1	13:06:00	20	20			WD4, (Conifer plantation) Female flying over treetops foraging		AOD
HH0029	09/01/2019	VP5	Hen Harrier	1	12:36:00	95	95			GS4, (Wet grassland) PB2, (Upland blanket bog) Adult male foraging from site heading east. flushed 3GP		AOD
HH0030	09/01/2019	VP5	Hen Harrier	1	13:08:00	15	15			GS4, (Wet grassland) Flying low just outside 500m boundary, foraging		AOD
HH0031	09/01/2019	VP5	Hen Harrier	1	14:43:00	20	20			GS4, (Wet grassland) Likely same bird foraging, flushed FF flock		AOD
HH0032	15/01/2019	VP2	Hen Harrier	1	13:34:00	190	140	50		WD4, (Conifer plantation) Adult male travelling high above forestry dropping at times foraging between WD4		AOD
HH0033	11/03/2019	VP5	Hen Harrier	1	15:37:00	480	430	30		WD4, (Conifer plantation) Male flying over site foraging being blown by strong wind mainly over wd4. no breeding behaviour	Adult male	AOD
HH0034	12/03/2019	VP2	Hen Harrier	1	09:26:00	15	15			WD4, (Conifer plantation) Adult female foraging in open area between WD4. no breeding behaviour	Adult female	AOD
HH0035	18/04/2019	VP4	Hen Harrier	1	09:06:00	2	2			PB2, (Upland blanket bog) ringtail		JB
HH0036	18/04/2019	VP6	Hen Harrier	1	12:10:00	17	17			PB2, (Upland blanket bog) Female / ringtail hunting		JB

Vantage Point Surveys													
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor	
HH0037	18/04/2019	VP6	Hen Harrier	1	12:17:00	10	10			PB2, (Upland blanket bog) Female / ringtail hunting		JB	
HH0038	05/05/2019	VP3a	Hen Harrier	1	07:56:00	57	57			PB2, (Upland blanket bog) PF2, (Poor fen and flush) HH3, (Wet heath) Flew past VP3a passing within 50m, flying low over vegetation, foraging flight, from NE to SW, out of view as bird flew down slope.	Ring-tail. Appeared small and lithe, so possibly imm. male	ND	
HH0039	13/05/2019	VP1a	Hen Harrier	1	08:08:00	150	150			WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) FORAGING flight low over imm. conifer plantation in valley, though direct and quite fast.	immature ring-tail or female	ND	
HH0040	26/06/2019	VP3a	Hen Harrier	1	11:21:00	280	20	230	30		ringtail or female. Low at first circling over young forestry plantation and heather, over behind line of tall conifers. Circed high to about >200m then made long straight direct descent glide becoming fast as bird travelled off trajectory 20m over ground		ND
HH0041	11/09/2019	VP6	Hen Harrier	1	09:30:00	500	500			GS4, (Wet grassland) Mobbed	Ringtail	JK	

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
HH042	VP6	20/01/2021	09:11	Hen Harrier	1	463	432	31			raised bog; foraging through Meenyanly in w direction, male	DM
HH043	VP5	22/01/2021	09:27	Hen Harrier	1	183	173	10			immature woodland and raised bog; sub adult male. First observed flying over re stock in Glenard. flew in s direction @ circa 5 metres in the direction of Meenyanly, male	DM
HH044	VP3	24/01/2021	11:14	Hen Harrier	1	51	51				raised bog; travelling in NE direction, male	DM
HH045	VP1	25/01/2021	13:46	Hen Harrier	1	369	345	24			raised bog and conifer plantation; foraging adult. flew north over Glenard forestry., male	DM
HH046	VP7	03/02/2021	11:49	Hen Harrier	1	96	32	10	54		raised bog and conifer plantation; travelling in se direction over conifer plantation towards Meenyanly, male	DM
HH047	VP1	08/02/2021	10:43	Hen Harrier	1	216	201	15			raised bog and conifer plantation; foraging before flying in a n direction over Glenard, male	DM
HH048	VP3	11/02/2021	10:23	Hen Harrier	1	563	553	10			raised bog and conifer plantation; foraging through Meenyanly. male	DM
HH049	VP5	18/02/2021	10:03	Hen Harrier	1	469	496				raised bog; foraging in a SW direction towards Meenyanly, male	DM
HH050	VP6	25/02/2021	11:13	Hen Harrier	1	526	526				raised bog and conifer plantation; foraging through Meenyanly, male	DM
HH051	VP5	04/03/2021	11:01	Hen Harrier	1	547	547				raised bog; adult - foraging. moved over Feemuck in SE direction towards Glackmore, male	DM
HH052	VP6	08/03/2021	11:36	Hen Harrier	1	560	560				raised bog; foraging through Meenyanly, male	DM
HH053	VP3	09/03/2021	14:48	Hen Harrier	1	26					raised bog; adult - foraging, male	DM
HH054	VP7	07/06/2021	10:10	Hen Harrier	1	90	5	15	35	35	conifer plantation and bogs; soaring, male, lost sight as it went east and low	PW

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
HH055	VP4	08/06/2021	10:21	Hen Harrier	1	31	31	0	0	0	bogs; foraging, ad male	DM
HH056	VP5	23/08/2021	08:43	Hen Harrier	1	74	74	0	0	0	bogs; foraging, adult female hunting intermittently whilst travelling in a northerly direction	DM
HH057	VP2	21/09/2021	18:05	Hen Harrier	1	60	60	0	0	0	bogs; hunting, went to ground for few seconds. male	MM
HH058	VP2	21/09/2021	18:20	Hen Harrier	1	50	50	0	0	0	bogs; flying low, male	MM
HH059	VP2	21/09/2021	18:25	Hen Harrier	1	300	270	30	0	0	bogs and conifer plantation; hunting and dived down onto the thicket trees twice, male	MM
HH060	VP2	21/09/2021	19:30	Hen Harrier	1	420	60	360	0	0	conifer plantation and bogs; flew high over forest, then went low over moorland. appeared to go down to roost, male sub ad	MM
HH061	VP5	22/09/2021	14:16	Hen Harrier	1	41	41	0	0	0	bogs and conifer plantation; travelling, ad male travelling in WNW direction over Glenard	DM

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
HH001	19/05/2018	18:31:00	Hen Harrier	1	Female. Lifts from brash in clear-fell, lands on tree, perches for 6s, lifts and flies into conifers.		JOS

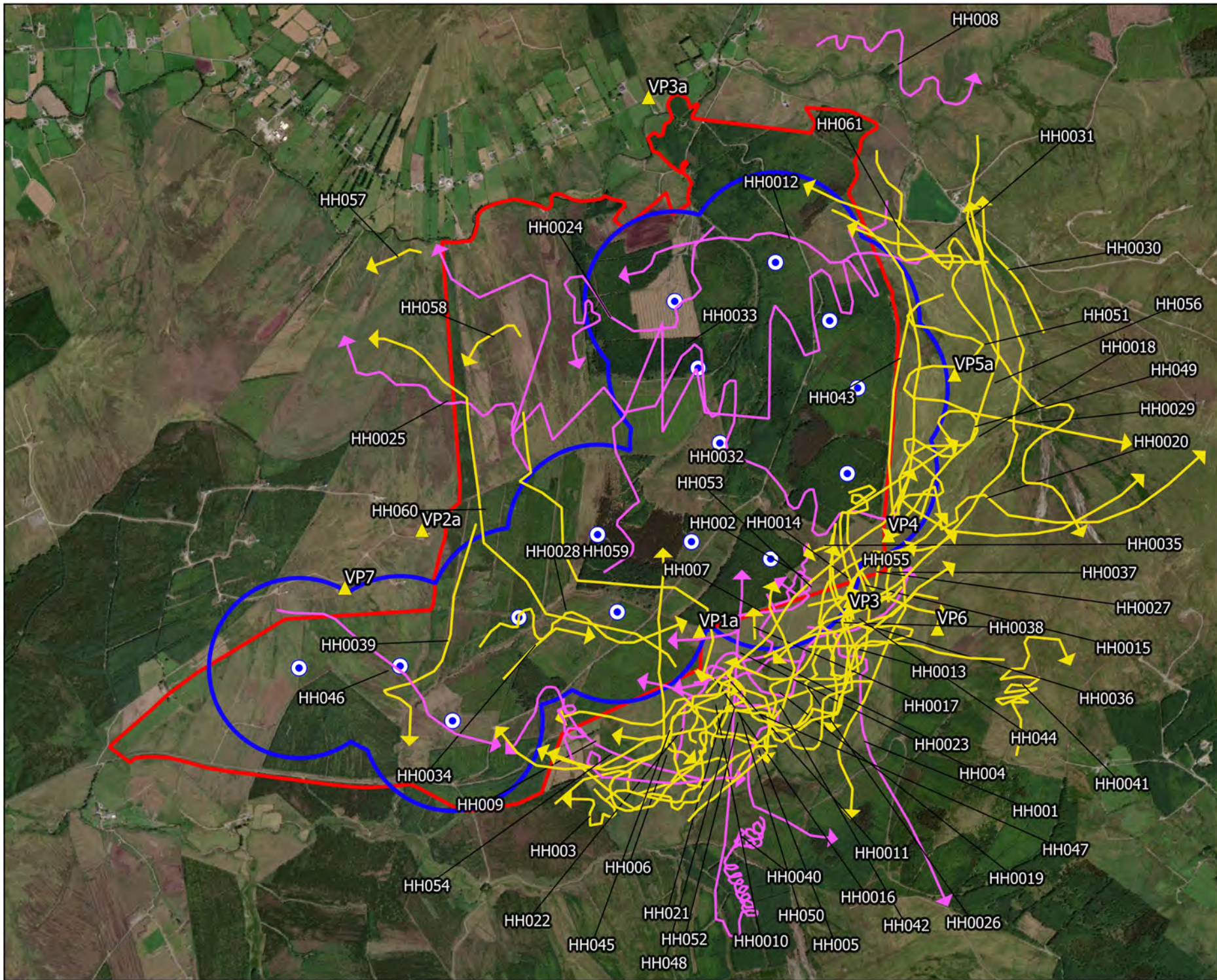
Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
HH001	18/05/2018	13:33:00	Hen Harrier	1	PB, (Bogs) In flight	Ringtail. Flies east.	JOS
HH002	18/05/2018	17:24:00	Hen Harrier	1	WD4, (Conifer plantation) In flight.	Male.	JOS
HH003	18/05/2018	17:11:00	Hen Harrier	1	PB, (Bogs) WD4, (Conifer plantation) Alarm call.	Alarm calls only; no visual. Individual travelling west to east alarm calling near Meenyanly and Crockglass Hill.	JOS
HH004	25/04/2019	10:15:00	Hen Harrier	1	HH3, (Wet heath) PB2, (Upland blanket bog) GS4, (Wet grassland) RT HH, observed flying from NE to SW, foraging over heath and bog above shore of reservoir (Lough Turk) and on Illies Hill. Lost visual as bird flew downslope, but spotted again (next data entry) shortly after, returning to NE.	Adult Female/Ringtail	JB
HH005	25/04/2019	10:40:00	Hen Harrier	1	GS4, (Wet grassland) FS2, (Tall-herb swamps) HH3, (Wet heath) RT spotted again foraging over tall herb veg above lake shore (L Turk)	Adult Female/Ringtail	JB
HH006	01/05/2019	07:47:00	Hen Harrier	1	WD4, (Conifer plantation) Male HH flew west, perched in young conifers of restock for 8 mins, then flew on westward. Lost visual.	Adult Male	JB
HH007	07/06/2019	09:06:00	Hen harrier	1	Ring-tail (female or 1mm male) spotted rising from stream (Pollandoo burn) valley to the south, Meenyanly (c4230), circled broadly and ascending slowly flew south over forestry crossing Owenkillew River and south over back burn valley about 20m high-out of view		ND
HH008	07/06/2019	09:40:00	Hen harrier	1	ringtail (female) spotted again distant. Brief and a little obstructed. Flew low over willow scrub an forest edge low 10m over ground along Owenkillew River valley. 9 secs bird descended into canopy this obstructed view		ND
HH009	09/06/2021	13:55	Hen Harrier	1	bogs, travelling over moorland		MM

Hen Harrier Roost Surveys								
Map Ref No.	Date	HHVP	Species	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
HH001	19/10/2016		Hen Harrier	1	18:49:00	1 ringtail (juvenile male) recorded. Observed from the east moving northward at 18:49. Poor visibility at 500m, however possibly landed amongst rank vegetation and heath at C4250 3245. Roost site.		AR
HH002	28/10/2016		Hen Harrier	1	18:25:00	1 female observed west of site outside boundary. Flying south at 18:25. Flew out of sight behind coniferous plantation.		AR
HH003	23/11/2016		Hen Harrier	1	16:51:00	In flight low over vegetation. PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation)	One adult male observed. Emerged over woodland, flying low over vegetation towards glen at 16:51. Flying out of view over treeline southwest of site boundary	AR
HH004	28/11/2016		Hen Harrier	1	15:29:00	In flight over site boundary edge. PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation)	1 female observed at 15:29. Emerged from forest edge flying low before returning into PCH. Flying SW for 45 seconds (25 seconds offsite).	AR
HH005	08/12/2016		Hen Harrier	1	16:08:00	In flight. PB2, (Upland blanket bog) WD4, (Conifer plantation)	Female observed hunting in flight at 16:08. Flying within PCH for 15 seconds before descending low to the ground and travelling offsite down the glen south west of site. 25 seconds onsite, 40 seconds offsite.	AR
HH006	19/12/2016		Hen Harrier	1	15:15:00	In flight. PB2, (Upland blanket bog) HH3, (Wet heath)	1 female recorded passing over VP at 15:15, flying across Some Hill windfarm before going over brow of hill. Approximately 61 seconds below PCH	AR
HH008	15/01/2017	Area 4	Hen Harrier	1	15:30:00	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Hunting	One adult female observed hunting offsite at 15:30. Flying for 112seconds low over heathland and rising into PCH for a time. Arriving from the west and flying back in that direction until out of sight.	AR
HH0010	17/02/2017	Area 2	Hen Harrier	1	16:45:00	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	1 male observed from a distance in flight for 21 seconds. Flying along plantation edge below PCH and SW of site. Continuing in flight out of sight.	AR
HH0011	28/02/2017	Area 4	Hen Harrier	1	17:01:00	PB2, (Upland blanket bog) HH3, (Wet heath) In flight	1 female (adult) observed in flight NW of site at 17:01. Could be seen for 37 seconds. Flying low	AR

Hen Harrier Roost Surveys								
Map Ref No.	Date	HHVP	Species	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
							below PCH. Arriving from north east. Flew over immature woodland and out of sight to the west.	
HH0012	24/03/2017	Area 4	Hen Harrier	1	18:12:00	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) In flight	1 adult male observed at 18:12. Flying SW low to the ground, entering PCH for 10 seconds. Total flight time observed 79 seconds before flying behind treeline.	AR
HH0014	24/11/2017	Area 2	Hen Harrier	1	16:01:00	PB2, (Upland blanket bog) WD4, (Conifer plantation) Flew over glen below PCH; Rising into PCH for a time. Flying SW for 211 seconds at 16:01. Flying over PB2 majority of time off site.	Adult Male	AR
HH0015	29/12/2017	Area 1	Hen Harrier	1	15:10:00	1 male observed in flight over survey area at 15:10. Flying low over HH3. Arrived from NE. Didn't land, stayed circling for 233 seconds.	Adult Male	AR
HH0017	04/03/2018	Area 3	Hen Harrier	1	17:10:00	Adult male HH observed in flight emerging over treeline flying east to west offsite and out of sight behind Sorne Hill. Total flight time 57 seconds below PCH. Time 17:20.	Adult Male	AR
HH0018	29/10/2018	4	Hen Harrier	1	16:32:00	WD4, (Conifer plantation) HH3, (Wet heath) GS4, (Wet grassland) In flight low to the ground	Adult Male in flight. Flying west low to the ground within site. Flew out off site behind Sorne Hill.	AR
HH0019	13/02/2019	HHVP1	Hen Harrier	1	16:01:00	PB2, (Upland blanket bog) HH4, (Montane heath) GS4, (Wet grassland) Adult female flew across viewshed foraging. East to West off site (45s Band 1). Not seen coming to Roost.		AOD
HH0020	21/03/2019	HHVP3	Hen Harrier	1	17:41:00	HH4, (Montane heath) Hunting/Foraging on site. Adult male flying through the area. No roosting observed (Band 1-2)		AOD
HH022	27/01/2021	HHVP2	Hen Harrier	1	16:40	raised bog and conifer plantation, adult, flying northwards into the site footprint, adult male		MM

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
HH001	02/03/2018	10:03:00	Hen Harrier	1		PB2, (Upland blanket bog) in flight, Hunting	AR
HH002	05/12/2018	11:28:00	Hen Harrier	1	Adult Female	Flying down from hill onto open area hunting there (Band 1), then flew back up hill along site boundary at Ture. 260s observation at Band 2	AOD

Incidental Observations							
Date	Survey Type	Species	No. of Birds	Notes			Surveyor
04/01/2019	Waterfowl survey at Some Hill	Hen Harrier	1	Foraging female seen in transit between waterbodies. Observed for 420s band 1/2 south of Some Hill perched on post for 120s then flew off towards site			AOD



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title
**Hen Harrier Observations
Vantage Point Surveys**

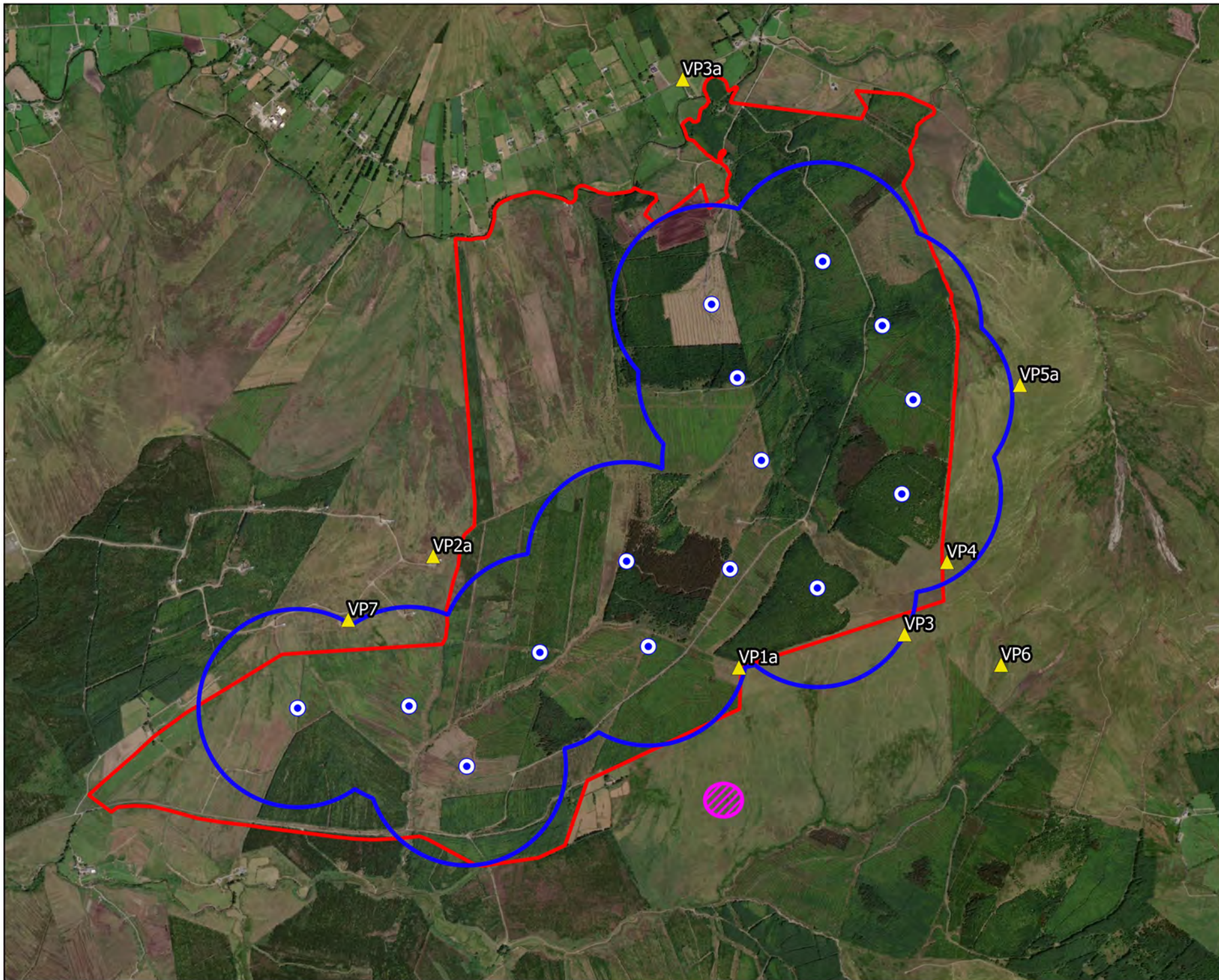
Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.3
Scale 1:27500	Date 10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- Potential Roost Location



Drawing Title

Hen Harrier Roost Location
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.3.1

Scale

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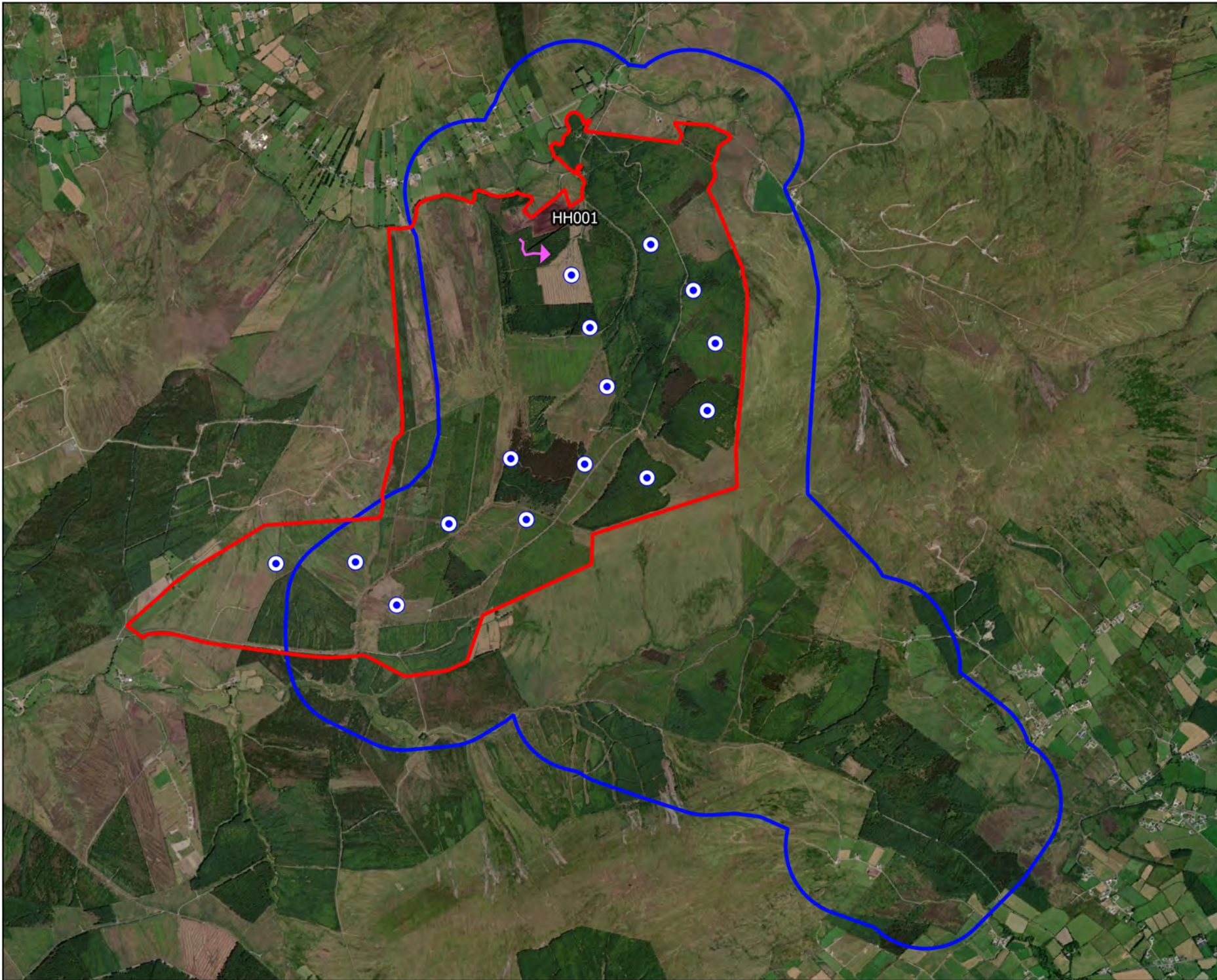
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10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title

Hen Harrier Observations
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.3.2

Scale

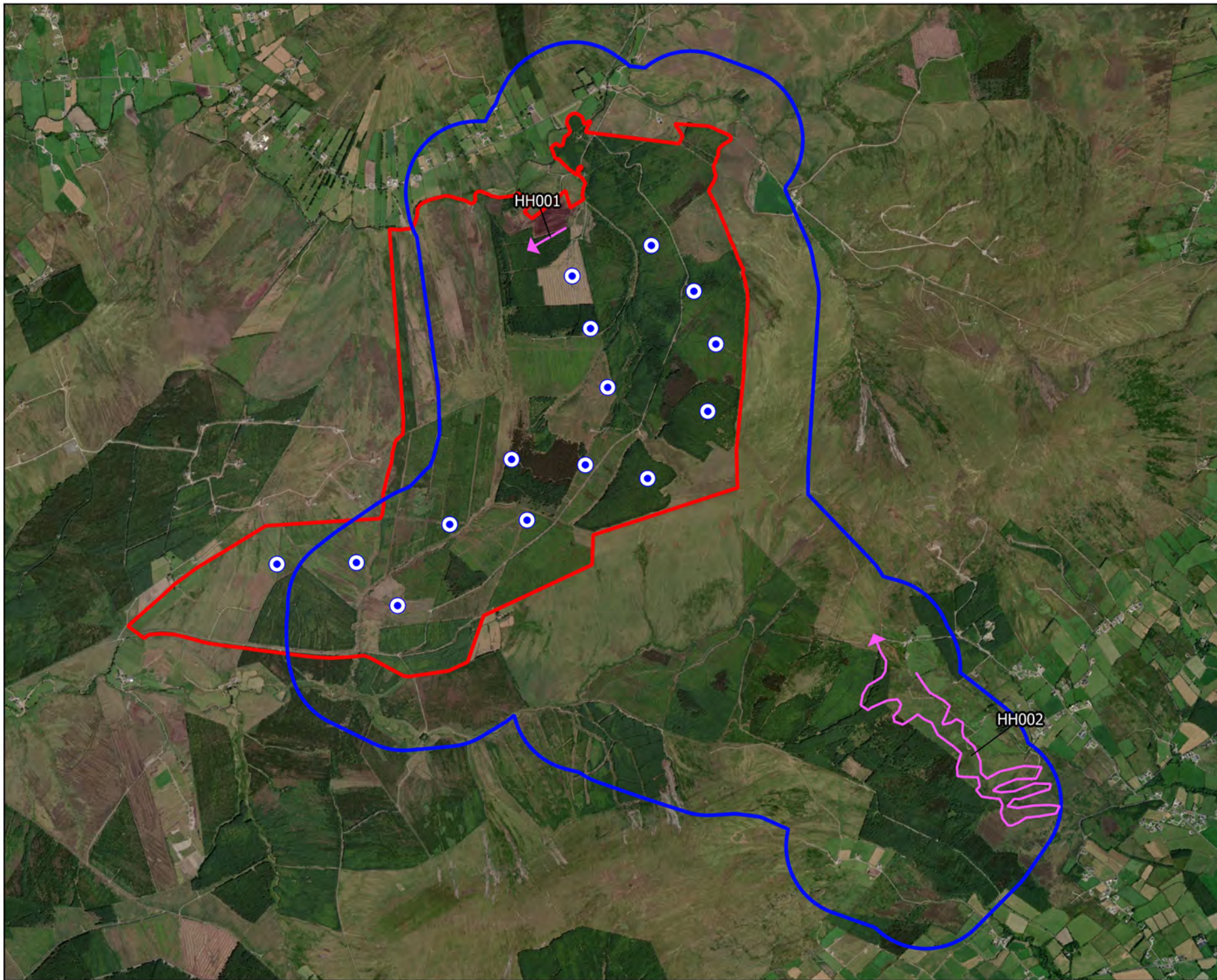
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10/11/2021



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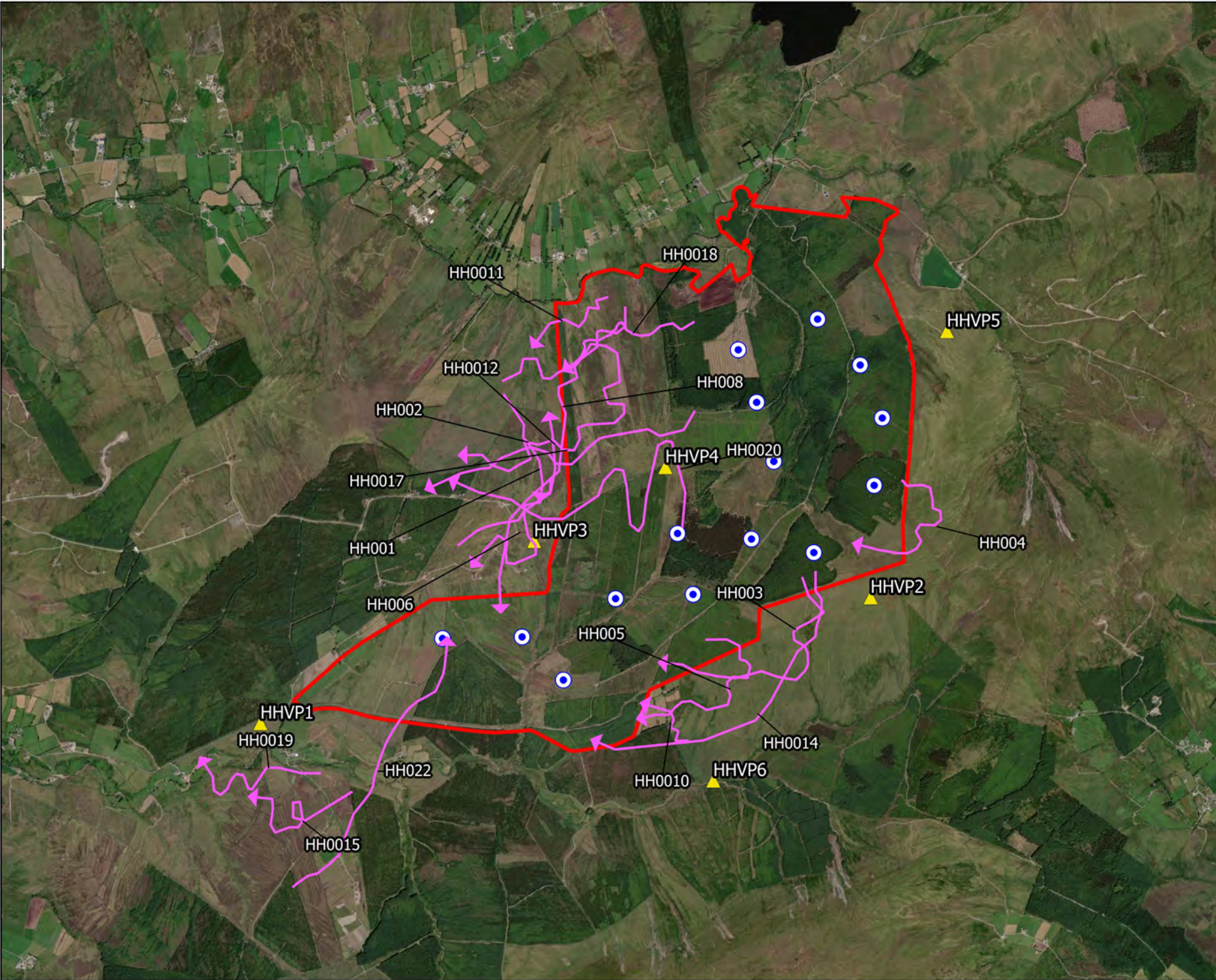
Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title Hen Harrier Observations Winter Walkover Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.5.2
Scale 1:35000	Date 10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- ▲ Hen Harrier Roost Vantage Point Location
- Flightline



<p><small>Drawing Title</small></p> <p>Hen Harrier Observations Hen Harrier Roost Surveys</p>	
<p><small>Project Title</small></p> <p>Glenard Windfarm</p>	
<small>Drawn By</small>	<small>Checked By</small>
Patrick Manley	Padraig Cregg
<small>Project No.</small>	<small>Drawing No.</small>
190114	Figure 7.6.1
<small>Scale</small>	<small>Date</small>
1:35000	10/11/2021
<p>MKO Planning and Environmental Consultants <small>Tuam Road, Galway Ireland, F91 VV84 +353 (0) 91 735611 email: info@mkofireland.ie Website: www.mkofireland.ie</small></p>	

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Table 5 Merlin Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
ML001	30/11/2018	VP6	Merlin	1	12:00:00	40	40			GS4, (Wet grassland) Hunting bird landed on ground then flew off north		AOD
ML002	15/02/2019	VP1	Merlin	1	14:03:00	45	15	30		WD4, (Conifer plantation) HH4, (Montane heath) Flew over site wd4 at height dropping to ground level towards Some hill	Adult female	AOD
ML003	28/03/2019	VP6	Merlin	1	07:09:00	8	8			WD4, (Conifer plantation) GS4, (Wet grassland) Hunting flock of MP	Adult female	AOD
ML004	18/04/2019	VP6	Merlin	1	12:29:00	135	30	105		PB2, (Upland blanket bog) female hunting, travelling		JB
ML005	18/04/2019	VP6	Merlin	1	13:30:00	13	13			PB2, (Upland blanket bog) male hunting, travelling		JB
ML006	14/08/2019	VP6	Merlin	1	20:03:00	90	90			WD4, (Conifer plantation) Hunting Mistle Thrush		JK

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
ML007	VP3	24/01/2021	14:23	Merlin	1	29	29				raised bog and conifer plantation; adult flying low into forestry, male	DM
ML008	VP6	25/02/2021	13:49	Merlin	1	31	31				conifer plantation and raised bog; travelling in se direction, male	DM
ML009	VP7	01/03/2021	13:51	Merlin	1	261	261				raised bog; adult flew low (circa 5m) past VP and landed on fence post for 219 seconds, male	DM
ML010	VP1	06/03/2021	14:16	Merlin	1	37	37				raised bog; adult - flying low and fast in SW direction, male	DM
ML011	VP7	16/05/2021	11:14	Merlin	1	20	20	0	0	0	conifer plantation and bogs; low, fast, direct flight, female	PW

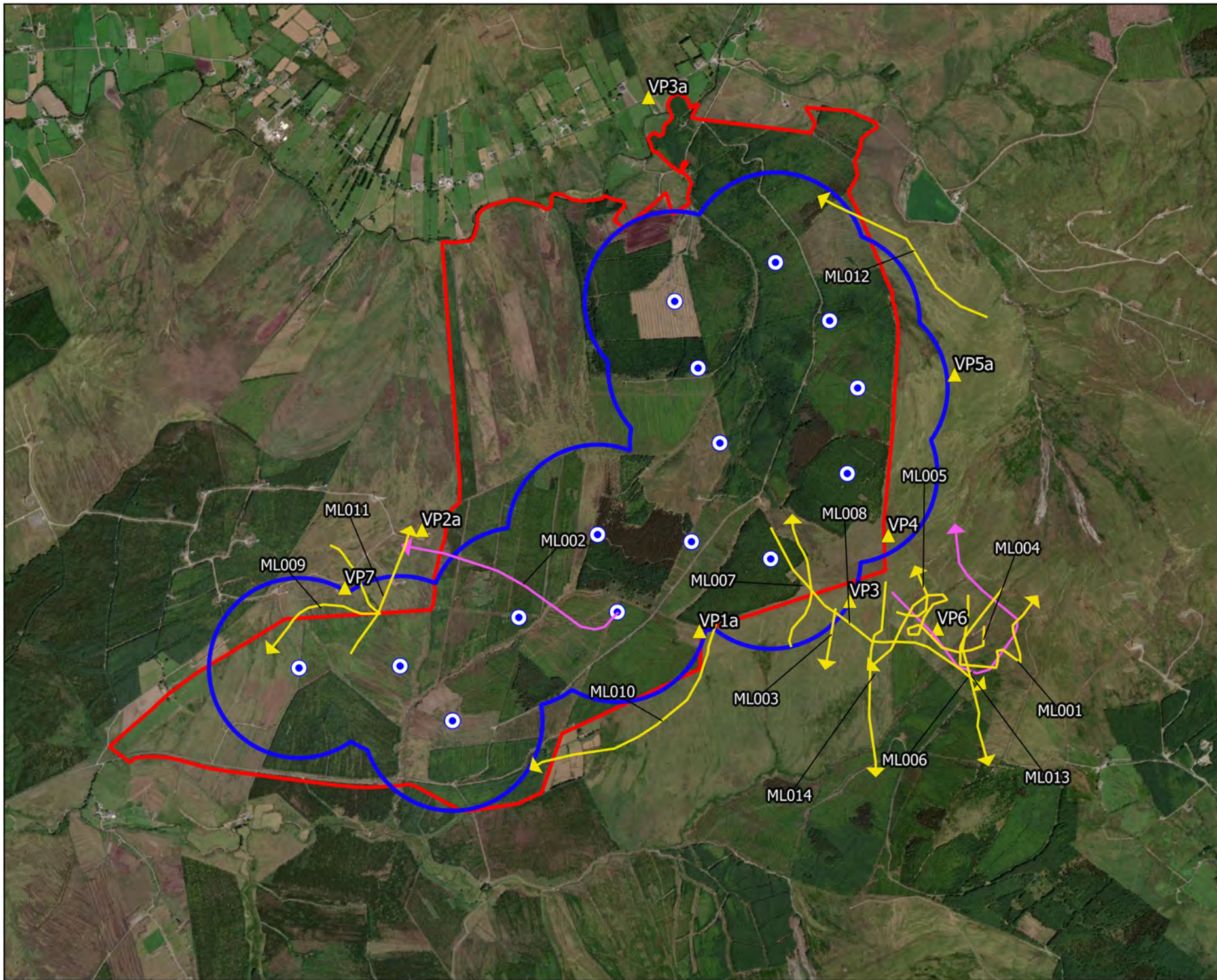
Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
ML012	VP5	24/05/2021	07:01	Merlin	1	27	27	0	0	0	bogs and conifer plantation; adult male	DM
ML013	VP6	10/06/2021	14:15	Merlin	1	27	27	0	0	0	bogs and conifer plantation; flying, ad male	DM
ML014	VP6	14/07/2021	08:41	Merlin	1	17	17	0	0	0	bogs and conifer plantation; ad male flying low and fast in south direction, ad male	DM

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
ML001	07/05/2017	11:00:00	Merlin	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
ML002	08/07/2017	10:59:00	Merlin	1	HH3, (Wet heath) WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
ML003	11/04/2018	14:00:00	Merlin	1	PB2, (Upland blanket bog) GS4, (Wet grassland) hunting male band 1/2. offsite	Male	AOD
ML004	11/04/2018	17:20:00	Merlin	1	PB2, (Upland blanket bog) GS4, (Wet grassland) Flying low towards reservoir. Offsite	female	AOD
ML005	25/04/2019	12:15:00	Merlin	1	HH3, (Wet heath) GS4, (Wet grassland) female Merlin flying, travelling from NW to SE	possibly breeding in the area	JB
ML006	21/05/2019	10:52:00	Merlin	1	PB2, (Upland blanket bog) HH3, (Wet heath) Travelling: Female flew by from west, heading E then NE over skyline, 25m over ground level	Female merlin in breeding and foraging habitat	ND
ML007	22/04/2021	08:21	Merlin	1	raised bog, flying low in a SSE direction, adult male		DM
ML008	25/05/2021	08:16	Merlin	1	bogs, adult male flying low and fast		DM
ML009	10/07/2021	12:25	Merlin	4	bogs, 3 fledged chicks sitting on fence posts screaming for food. adult came in carrying prey, must have nested in nearby forest		MM
ML010	10/07/2021	13:20	Merlin	1	improved agricultural grassland, flew low over lake and bog, looked like female		MM

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
ML001	13/02/2019	14:34:00	Merlin	1	Adult Female	Adult female hunting flock of CH on site. Perched twice on pole then flew off site towards Illies Hill (360S Band 1-2)	AOD

Migration Vantage Point Surveys							
Map Ref.	Date	VP	Species	No. of birds	Notes on habitat and activity	Comments	Surveyor
ML001	27/01/2017	Migration VP	Merlin	1	WD4, (Conifer plantation) Hunting (Adult Male)		TR

Incidental Observations							
Date	Survey Type	Species	No. of Birds	Notes			Surveyor
27/01/2021	HH Roost; HHVP2	Merlin	1	PB1, (Raised bog) Perched on fence post preening. Brief flight over bog before returning to perch on fence. Adult Male			MM



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title	
Merlin Observations Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.4
Scale	Date
1:27500	10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline
- ◆ Observation



Drawing Title

Merlin Observations
Breeding Raptor Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.4.3

Scale

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Date

10/11/2021



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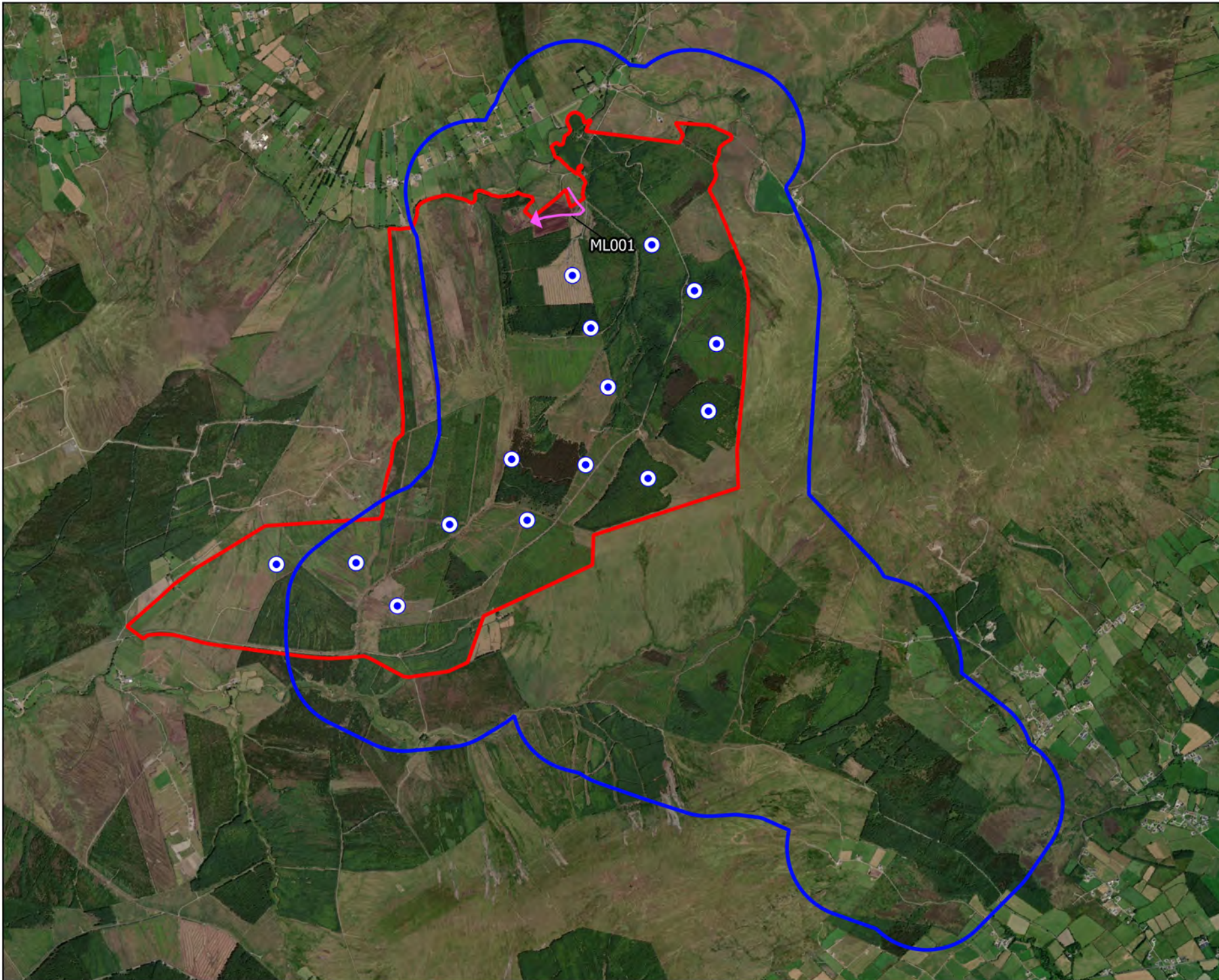
Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Territory



<p>Drawing Title</p> <p>Merlin Territory Breeding Raptor Surveys</p>	
<p>Project Title</p> <p>Glenard Windfarm</p>	
<p>Drawn By</p> <p>Patrick Manley</p>	<p>Checked By</p> <p>Padraig Cregg</p>
<p>Project No.</p> <p>190114</p>	<p>Drawing No.</p> <p>Figure 7.4.31</p>
<p>Scale</p> <p>1:52500</p>	<p>Date</p> <p>10/11/2021</p>
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title

Merlin Observations
Winter Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.5.3

Scale

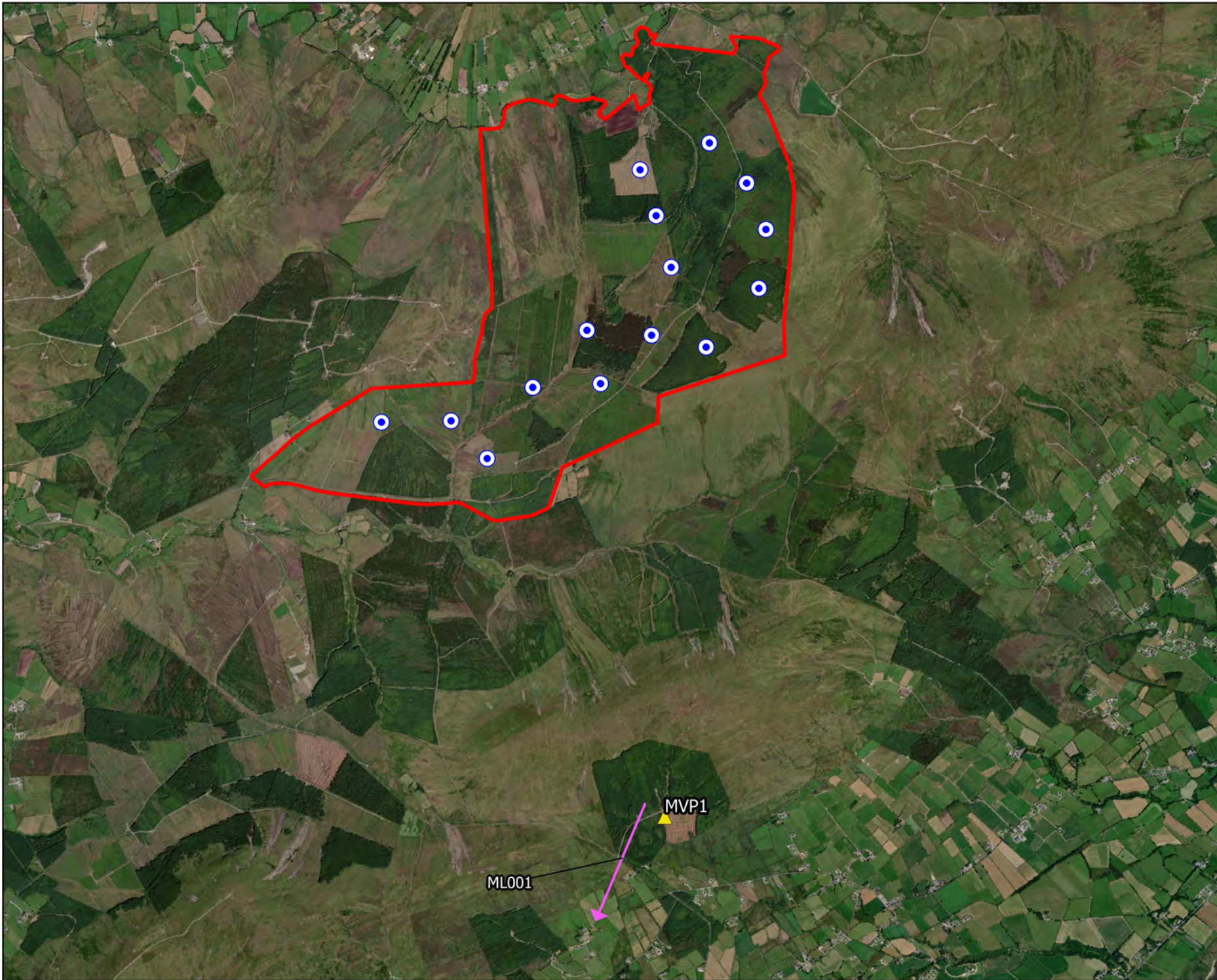
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Date

10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- ▲ Migratory Vantage Point Location
- ➔ Flightline



Drawing Title

Merlin Observations
Migratory VP Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.9.1

Scale

1:40000

Date

10/11/2021



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Table 6 Osprey Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
OP001	25/07/2018	VP1a	Osprey	1	12:12:00	20	10	10		WD4, (Conifer plantation) Adult bird flying over site west to east. No rings observed.		AOD



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- ➔ PCH Flight



Drawing Title

Osprey Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.5

Scale

1:27500

Date

10/11/2021



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Table 7 Peregrine Falcon Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
PE004	11/03/2017	VP3	Peregrine Falcon	1	18:27:00	27	0	27	0	WD4, (Conifer plantation) In flight	Flying SW over forest beside VP3.	AR
PE001	16/07/2017	VP1a	Peregrine Falcon	1	15:32:00	74	4	70		WD4, (Conifer plantation) Hunting		PM
PE002	20/03/2018	VP4	Peregrine Falcon	1	16:39:00	75	17	58	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunted at up to 5m over bog and forestry edges	Adult Male	RW
PE003	01/05/2018	VP2a	Peregrine Falcon	1	09:39:00	20	20			WD4, (Conifer plantation) Male Peregrine flying direct over treetops; possibly foraging for WPs	This data allocated to April	ND
PE005	22/11/2018	VP2	Peregrine Falcon	1	11:04:00	30	30			PB2, (Upland blanket bog) HH4, (Montane heath) Travelling from Sorne Windfarm onto site		AOD
PE006	15/08/2019	VP6	Peregrine Falcon	1	11:15:00	120	100	20		WD4, (Conifer plantation) GS4, (Wet grassland) Hunting		JK
PE007	15/08/2019	VP6	Peregrine Falcon	1	12:01:00	30	30			WD4, (Conifer plantation) GS4, (Wet grassland) hunting		JK
PE008	11/09/2019	VP6	Peregrine Falcon	1	11:05:00	30	30			WD4, (Conifer plantation) Hunting	J	JK

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
PE009	VP5	18/02/2021	12:41	Peregrine Falcon	1	49			49		raised bog and conifer plantation; travelling in WNW direction, female	DM
PE010	VP6	10/06/2021	07:45	Peregrine Falcon	1	56	0	0	56	0	bogs and conifer plantation; flying, ad male	DM

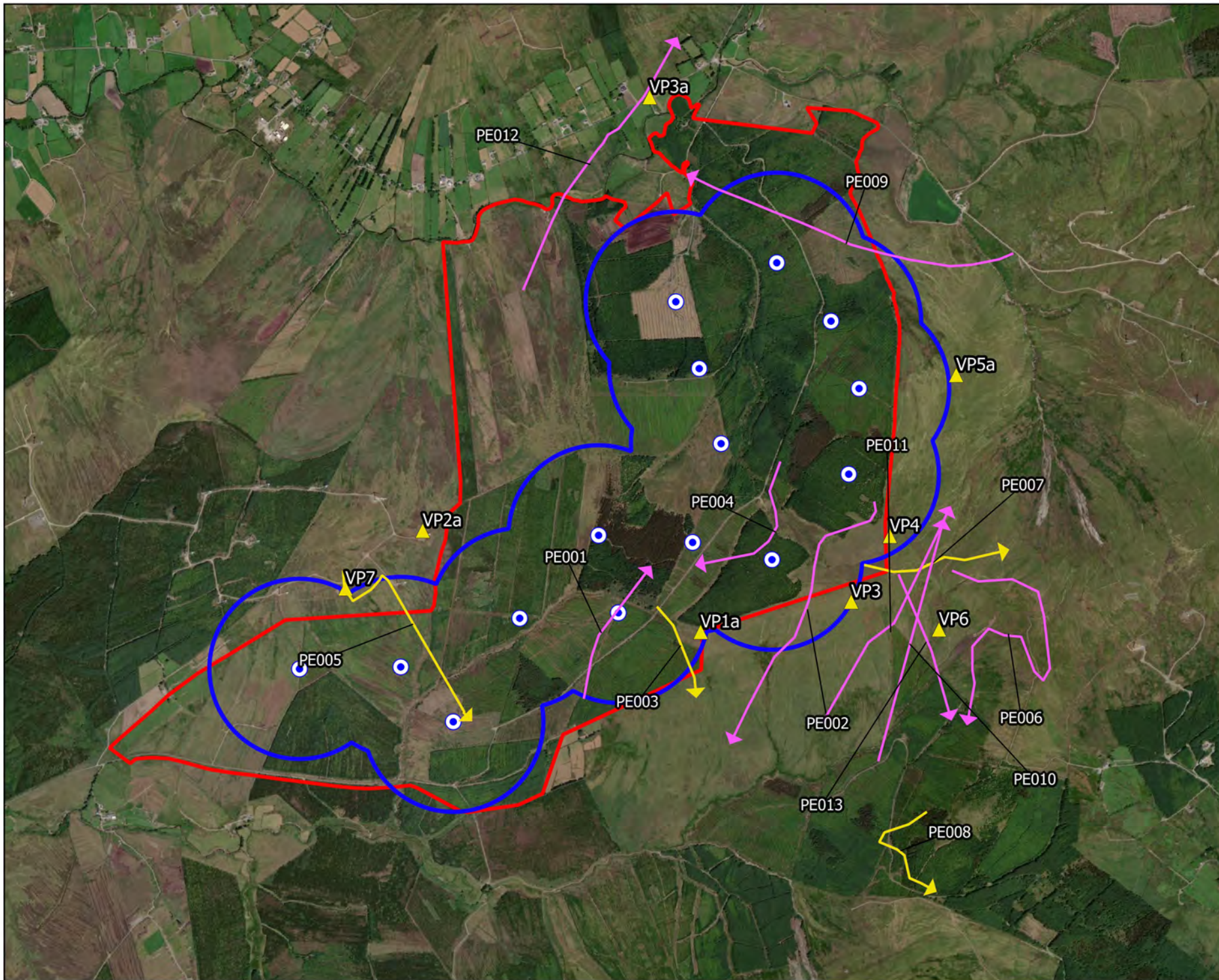
Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
PE011	VP6	22/08/2021	10:46	Peregrine Falcon	1	51	0	0	51		bogs; travelling, ad female travelling in a NE direction	DM
PE012	VP3	30/08/2021	12:51	Peregrine Falcon	1	39	0	0	39	0	bogs; travelling, tiercel travelling in NE direction	DM
PE013	VP6	20/09/2021	17:31	Peregrine Falcon	1	32	0	0	32	0	bogs; travelling, ad female travelling in a south direction	MM

Breeding Walkover Surveys						
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Surveyor
PE001	15/04/2017	09:50	Peregrine Falcon	1	ER1, (Exposed siliceous rock) Landing on crag just outside 500m buffer. Flew south	Suitable nesting habitat; Possible breeder

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
PE001	16/05/2017	09:10:00	Peregrine Falcon	1	WS5, (Recently felled woodland) In flight	Suitable nesting habitat; Possible breeder	AR
PE002	09/06/2017	10:13:00	Peregrine Falcon	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
PE003	20/07/2019	11:46:00	Peregrine Falcon	1		PE observed a few times re-visiting this area for WP prey opportunities. Likely to be a breeding site in the broader area	ND
PE004	27/07/2019	12:46:00	Peregrine Falcon	1		Breeding off-site. Visits to this area to forage, prey opportunities include WP in WD4 and WPs foraging on Bilberry	ND
PE005	25/05/2021	12:14	Peregrine Falcon	1	bogs, flying male		DM

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
PE006	18/07/2021	12:47	Peregrine Falcon	1	bogs, ad female traveling in ENE direction at circa 100m		DM

Incidental Observations						
Date	Survey Type	Species	No. of Birds	Notes	Surveyor	
31/10/2016	Waterfowl Survey	Peregrine	1		AR	
21/01/2017	On approach to VP2	Peregrine		Hunting along treeline	AR	
10/03/2017	During HH roost survey	Peregrine		Perched on fence post	AR	
28/09/2017	Whitecastle	Peregrine	1	Juvenile swooped on roosting curlews but flew off	AOD	
28/01/2021	HH Roost; HHVP3	Peregrine	1	PB1, (Raised bog) Traveling, Female	MM	



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight

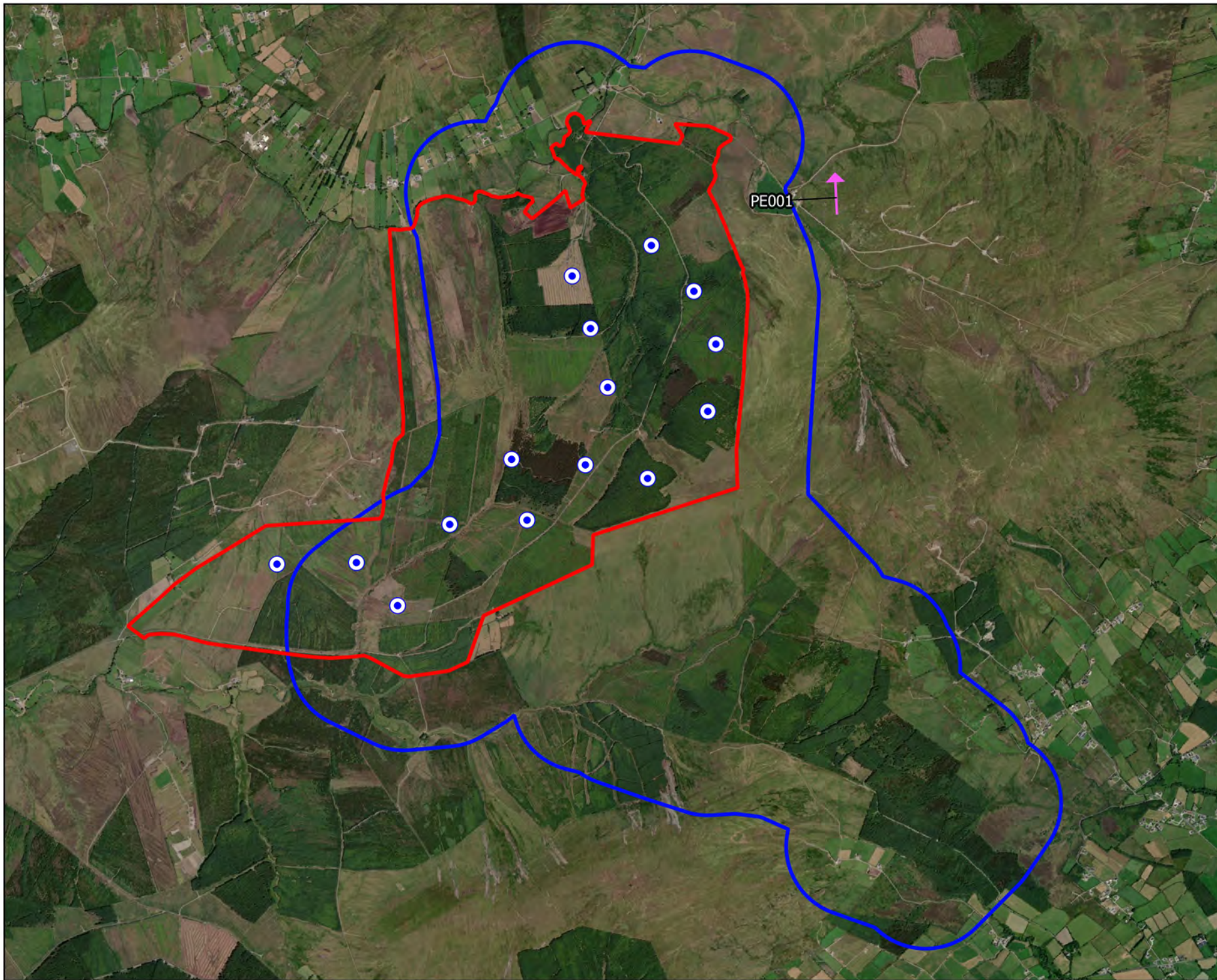


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Drawing Title	
Peregrine Observations Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.6
Scale	Date
1:27500	10/11/2021



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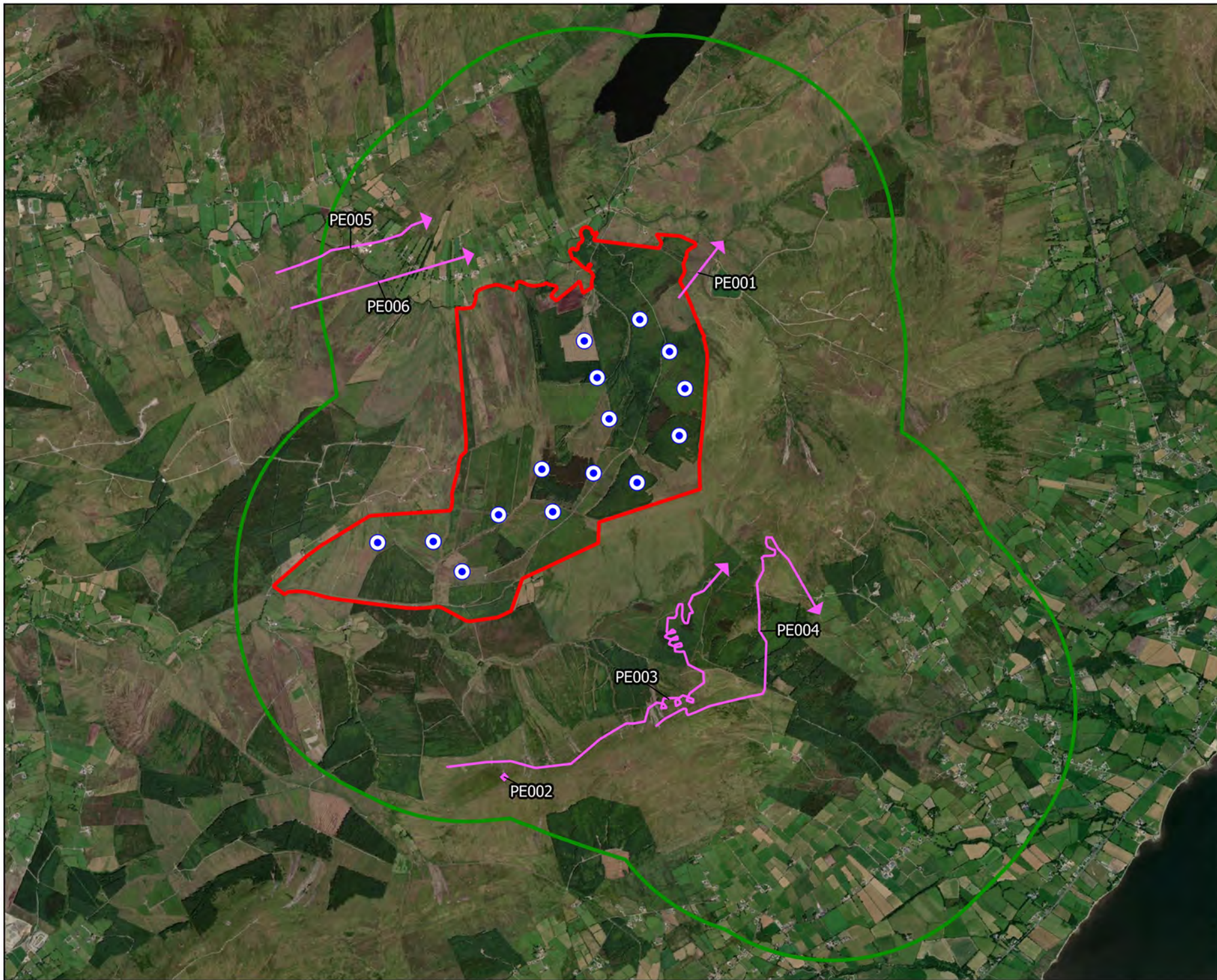
Map Legend

-  Wind Farm Site
-  Turbine Layout
-  Walkover Survey Area
-  Flightline



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Drawing Title	
Peregrine Observations Breeding Walkover Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.3.3
Scale	Date
1:35000	10/11/2021
	
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline
- ◆ Observation



Drawing Title
**Peregrine Observations
Breeding Raptor Surveys**

Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.4.4
Scale 1:50000	Date 10/11/2021

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Table 8 Red Kite Survey Data

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
06/02/2021	HH Roost; HHVP1	Red Kite	1	PB1, (Raised bog) Foraging. No wind tags evident. Female	MM
06/02/2021	HH Roost; HHVP1	Red Kite	1	PB1, (Raised bog) Foraging. Same bird as previous female	MM

Table 9 Whooper Swan Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
WS001	15/10/2016	VP5a	Whooper Swan	2	11:26:00	41	0	41	0	WD4, (Conifer plantation) HH3, (Wet heath) WS5, (Recently felled woodland) Calling, Travelling.	Travelling towards Lough Swilly.	AR
WS002	23/10/2016	VP4	Whooper Swan	21	12:16:00	55	0	55	0	WS5, (Recently felled woodland) WD4, (Conifer plantation) PB2, (Upland blanket bog) Travelling west	Flock observed feeding earlier in Fullerton Dam. Flying west towards Lough Swilly SPA.	AR
WS003	30/10/2016	VP6	Whooper Swan	3	09:50:00	53	0	53	0	WD4, (Conifer plantation) HH3, (Wet heath) WS5, (Recently felled woodland) In flight	Flying west over site within PCH	AR
WS004	05/11/2016	VP1a	Whooper Swan	4	16:15:00	61	0	61	0	HH3, (Wet heath) WD4, (Conifer plantation) In flight	Flying west towards Lough Swilly	AR
WS005	05/11/2016	VP1a	Whooper Swan	2	17:12:00	35	0	35	0	WD4, (Conifer plantation) HH3, (Wet heath) In flight	Flying towards Lough Swilly	AR
WS006	19/11/2016	VP6	Whooper Swan	3	15:01:00	31	0	31	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) In flight	Flying SW towards lough Swilly	AR
WS007	20/11/2016	VP4	Whooper Swan	4	15:06:00	41	0	41	0	HH3, (Wet heath) In flight	In flight over Some Hill heading west	AR
WS008	26/11/2016	VP5a	Whooper Swan	4	11:19:00	29	0	29	0	PB2, (Upland blanket bog) FW1, (Eroding/upland rivers) Flying west	Flying west towards Lough Swilly	AR
WS009	06/12/2016	VP3	Whooper Swan	9	09:01:00	42	0	42	0	HH3, (Wet heath) In flight	Observed in flight offsite to the NW of site	AR
WS0010	14/01/2017	VP3	Whooper Swan	3	13:21:00	64	0	64	0	HH3, (Wet heath) In flight	3 (including juvenile) flying SW offsite for 64 seconds.	AR
WS0011	28/10/2017	VP1a	Whooper Swan	6	11:07:00	79	0	79	0	PB2, (Upland blanket bog) HH3, (Wet heath) In flight	Flying west in PCH towards Lough Swilly	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
WS0012	26/11/2017	VP6	Whooper Swan	2	14:10:00	45	0	45	0	HH3, (Wet heath) WD4, (Conifer plantation) In flight	Flying SW mainly off site over Some Hill. Possibly towards Lough Swilly.	AR
WS0013	28/11/2017	VP1a	Whooper Swan	2	16:16:00	110		110		WD4, (Conifer plantation) PB2, (Upland blanket bog) Pair calling flying over site southwards		AOD
WS0014	29/11/2017	VP3	Whooper Swan	11	12:54:00	140			140	WD4, (Conifer plantation) PB2, (Upland blanket bog) Mixed broadleaved/conifer woodland Calling flock heading south over site		AOD
WS0015	07/01/2018	VP4	Whooper Swan	7	12:10:00	65	0	65	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	5 adults, 2 juveniles. In flight west over site in PCH.	AR
WS0016	13/10/2018	VP3	Whooper Swan	21	14:02:00	38	0	38	0	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Flying SW within PCH. Flew out of sight behind Some Hill.	AR
WS0017	14/10/2018	VP2	Whooper Swan	2	18:10:00	42	0	42	0	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Flying west within PCH offsite and within 500m buffer	AR
WS0018	27/10/2018	VP4	Whooper Swan	21	18:05:00	40	0	40	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	In flight east over site within PCH. Calling.	AR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
31/10/2016	Eddie Fullerton Dam		Whooper Swan	23		FL7	Feeding in lake, taking flight after a while in the direction of Lough Swilly	AR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	FL7	Whooper Swan	2		FL7, (Reservoirs)	taking flight from reservoir	AR
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	GA1	Whooper Swan	6		GA1, (Improved agricultural grassland)	flying over	AR
05/12/2016	Lough Foyle		Whooper Swan	6		MW2, (Sea inlets and bays)	Landed on water	TR
10/12/2016	Inch level 3		Whooper Swan	27		BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
10/12/2016	Inch level 4		Whooper Swan	61		GA1, (Improved agricultural grassland)	Feeding	TR
10/12/2016	Inch level 2		Whooper Swan	87		BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
10/12/2016	Inch Level 1		Whooper Swan	275		BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
20/12/2016	Blanket Nook		Whooper Swan	1		MW2, (Sea inlets and bays)		TR
20/12/2016	Inch Levels		Whooper Swan	530		BC1, (Arable crops) GA1, (Improved agricultural grassland)		TR
09/01/2017	Inch Lough	10	Whooper Swan	7	OW	GS4, (Wet grassland)	Feeding at lake edge	AR
09/01/2017	Inch Levels	18	Whooper Swan	85	T	GA1, (Improved agricultural grassland)	Feeding	AR
09/01/2017	Inch Levels	12	Whooper Swan	380	T	GA1, (Improved agricultural grassland)	Feeding in Improved agricultural grassland	AR
27/01/2017	Inch Levels	10	Whooper Swan	10	OW	FL8, (Other artificial lakes and ponds)	Feeding in lake	AR
27/01/2017	Inch Levels	1	Whooper Swan	11	T	GA1, (Improved agricultural grassland)	Feeding	AR
27/01/2017	Inch Levels	6	Whooper Swan	60	T	GA1, (Improved agricultural grassland)	Feeding in grassland fields	AR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
27/01/2017	Inch Levels	4	Whooper Swan	97	T	GA1, (Improved agricultural grassland)	Feeding in grassland fields	AR
27/01/2017	Inch Levels	9	Whooper Swan	280	T	GA1, (Improved agricultural grassland)	Feeding in grassland fields	AR
10/02/2017	Lough Foyle		Whooper Swan	37	AW	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Whooper Swan	38	T	GA1, (Improved agricultural grassland)	At far side of estuary behind tall bank	TR
10/02/2017	Lough Swilly	2005	Whooper Swan	45	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
10/02/2017	Lough Swilly	2006	Whooper Swan	50	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
10/02/2017	Lough Swilly	2007	Whooper Swan	218	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
13/02/2017		2010	Whooper Swan	4	OW	FL2, (Acid oligotrophic lakes)	On Water	TR
28/02/2017	Lough Foyle		Whooper Swan	55	T	GA2, (Amenity grassland (improved))	Terrestrial	TR
28/02/2017	INCH Level	2011	Whooper Swan	63	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	INCH Level	2012	Whooper Swan	144	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	INCH Level	2012	Whooper Swan	213	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017			Whooper Swan	2	OW	FL2, (Acid oligotrophic lakes)	On Water	TR
14/03/2017			Whooper Swan	66	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017			Whooper Swan	81	T	GA1, (Improved agricultural grassland)	Outside Buffer area at north side of Foyle	TR
14/03/2017			Whooper Swan	155	T	GA1, (Improved agricultural grassland)	Terrestrial	TR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
28/03/2017			Whooper Swan	1	OW	MW4, (Estuaries)	On Water	TR
28/03/2017			Whooper Swan	2	OW	FL2, (Acid oligotrophic lakes)	On Water	TR
28/03/2017			Whooper Swan	16	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Whooper Swan	70	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Whooper Swan	122	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Whooper Swan	168	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
08/04/2017	Inch levels		Whooper Swan	15	OW	GS4, (Wet grassland)	Feeding along Lake	AR
08/04/2017	Inch levels		Whooper Swan	20	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
08/04/2017	Inch levels		Whooper Swan	27	T	GA1, (Improved agricultural grassland)	Feeding in fields at Levels	AR
08/04/2017	Inch levels		Whooper Swan	620	T	GA1, (Improved agricultural grassland)	Feeding along 2 grass pastures	AR
20/04/2017	Inch levels		Whooper Swan	4	OW	GS4, (Wet grassland)	Feeding in Inch lake	AR
20/04/2017	Inch levels		Whooper Swan	214	T	GA1, (Improved agricultural grassland)	Feeding in grass fields	AR
20/04/2017	Inch levels		Whooper Swan	220	T	GA1, (Improved agricultural grassland)	Feeding in grass fields	AR
05/05/2017	Inch levels		Whooper Swan	3	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
05/05/2017	Inch levels		Whooper Swan	13	T	GA1, (Improved agricultural grassland)	Flying into grassland field	AR
21/05/2017	Inch levels		Whooper Swan	2	OW	FL8, (Other artificial lakes and ponds)	Feeding in Inch lake	AR

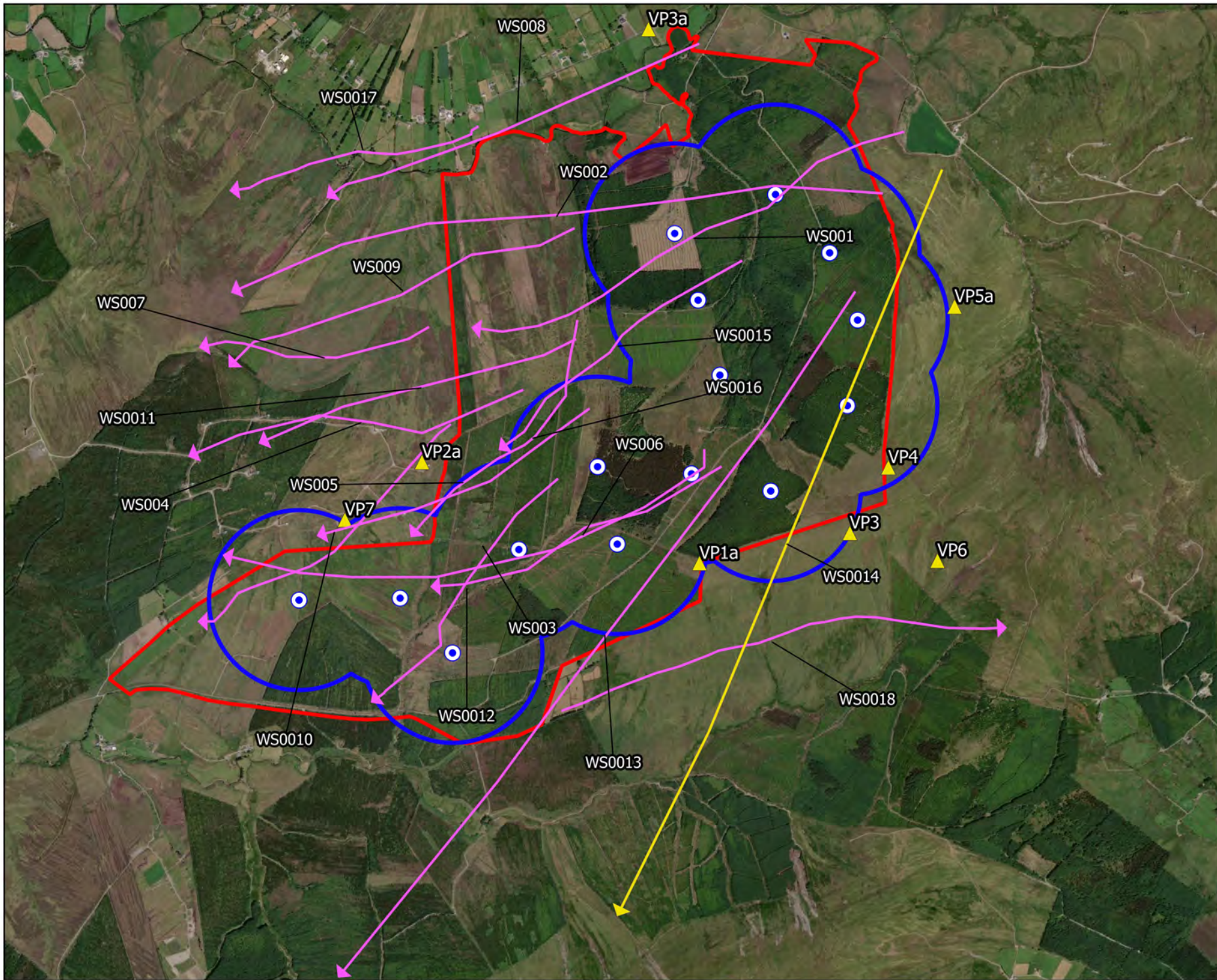
Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
28/09/2017	Blanket Nook		Whooper Swan	1	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
07/10/2017		IL1	Whooper Swan	110	T	GA1, (Improved agricultural grassland)	Feeding in stubble	AR
22/10/2017		I1	Whooper Swan	7	F	HH3, (Wet heath)	In flight SW	AR
22/10/2017		I2	Whooper Swan	21	F	HH3, (Wet heath)	In flight SW	AR
22/10/2017		IL5	Whooper Swan	130	T	GA1, (Improved agricultural grassland)	Foraging	AR
22/10/2017		IL2	Whooper Swan	165	T	GA1, (Improved agricultural grassland)	Foraging	AR
22/10/2017	Inch levels	IL1	Whooper Swan	230	T	GA1, (Improved agricultural grassland)	Foraging	AR
04/11/2017		T1	Whooper Swan	7	F	WD4, (Conifer plantation) HH3, (Wet heath)	In flight	AR
04/11/2017		IL4	Whooper Swan	9	OW	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
04/11/2017		B1	Whooper Swan	12	F	HH3, (Wet heath)	in flight	AR
04/11/2017		IL5	Whooper Swan	21	T	FL7, (Reservoirs)	Feeding along Inch Lake	AR
04/11/2017		IL1	Whooper Swan	27	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
04/11/2017		IL2	Whooper Swan	31	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
19/11/2017		B1	Whooper Swan	16	F	GA1, (Improved agricultural grassland)	In flight towards Inch Levels	AR
19/11/2017		IL3	Whooper Swan	69	T	BC1, (Arable crops)	Foraging in flooded fields	AR
19/11/2017		IL1	Whooper Swan	110	T	BC1, (Arable crops)	Foraging in flooded fields	AR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
02/12/2017		IL2	Whooper Swan	20	OW	FL7, (Reservoirs)	In Inch Lake	AR
02/12/2017	Inch levels	IL1	Whooper Swan	900	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
22/12/2017		BF1	Whooper Swan	7	F	GA1, (Improved agricultural grassland)	In flight	AR
22/12/2017		QP1	Whooper Swan	11	F	GA1, (Improved agricultural grassland)	In flight	AR
22/12/2017		IL1	Whooper Swan	26	T	GA1, (Improved agricultural grassland)	Feeding grassland	AR
22/12/2017		IL4	Whooper Swan	32	OW	FL7, (Reservoirs)	On Inch Lake	AR
22/12/2017		IL3	Whooper Swan	120	T	GA1, (Improved agricultural grassland)	Feeding grassland	AR
02/01/2018	Eddie Fullerton Dam	ED2	Whooper Swan	9	OW	FL7, (Reservoirs)	In reservoir	AR
02/01/2018	Inch Levels	IL5	Whooper Swan	37	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
02/01/2018	Inch Levels	IL2	Whooper Swan	94	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
02/01/2018	Inch Levels	IL6	Whooper Swan	101	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
21/01/2018	Inch Levels	IL2	Whooper Swan	47	T	GA1, (Improved agricultural grassland)	Foraging in grassland	AR
21/01/2018	Inch Levels	IL4	Whooper Swan	80	T	GA1, (Improved agricultural grassland)	Loafing	AR
21/01/2018	Inch Levels	IL3	Whooper Swan	144	T	GA1, (Improved agricultural grassland)	Foraging in grassland	AR
01/02/2018	Inch Road		Whooper Swan	185	T	GA1, (Improved agricultural grassland)	Terrestrial	AOD
19/02/2018	Inch		Whooper Swan	8	OW	MW2, (Sea inlets and bays)	On Water	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
19/02/2018	Inch Road		Whooper Swan	71	T	GA1, (Improved agricultural grassland)	Terrestrial	AOD
19/02/2018	Inch Burnfoot rd.		Whooper Swan	139	T	GA1, (Improved agricultural grassland)	Terrestrial	AOD
04/03/2018	Inch Levels	IL4	Whooper Swan	5	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
04/03/2018	Inch Levels	IL3	Whooper Swan	12	OW	FL7, (Reservoirs)	In Inch Lake	AR
04/03/2018	Inch Levels	IL1	Whooper Swan	21	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
04/03/2018	Inch Levels	IL2	Whooper Swan	105	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL8	Whooper Swan	6	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL4	Whooper Swan	15	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL3	Whooper Swan	20	OW	FL7, (Reservoirs)	In Inch Lake	AR
24/03/2018	Inch Levels	IL1	Whooper Swan	21	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL6	Whooper Swan	35	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL10	Whooper Swan	105	T	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
15/04/2018	Inch Lough / Levels		Whooper Swan	120	T	GA1, (Improved agricultural grassland)	GA1, (Improved agricultural grassland)	ND
26/04/2018	Inch Lough / Levels		Whooper Swan	110	OW	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
06/05/2018	Inch Lough / Levels		Whooper Swan	28	AW	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
09/05/2018	Lough Inn		Whooper Swan	1	AW	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	ND
31/05/2018	Inch Lough / Levels		Whooper Swan	4	AW	CW1, (Lagoons and saline lakes)	Above Water	ND

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
19/10/2016	Flying south over the Glenard site	Whooper swan	12	Observed during HH survey travelling towards Lough Swilly.	AR
22/10/2016	Flying north west over Glenard	Whooper swan	3		AR
25/11/2016	During HH survey at Area 4	Whooper swan	2	Flying west over site	AR
26/10/2018	HH VP6	Whooper swan	11	flying south east over vp6 within PCH	AR



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title	
Whooper Swan Observations Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.7
Scale	Date
1:27500	10/11/2021



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Table 10 Black-headed Gull

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BH001	22/10/2016	VP2a	Black-headed Gull	3	09:15	62	0	62	0	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling west		AR
BH002	05/11/2016	VP1a	Black-headed Gull	4	12:30:00	45	0	45	0	WD4, (Conifer plantation) HH3, (Wet heath) Flying south over VP.		AR
BH003	20/11/2016	VP4	Black-headed Gull	16	12:01:00	70	0	70	0	WS5, (Recently felled woodland) WD4, (Conifer plantation) In flight	Flock observed flying at PCH over site - SW	AR
BH004	08/01/2017	VP1a	Black-headed Gull	4	13:21:00	36	0	36	0	WD4, (Conifer plantation) HH3, (Wet heath) Travelling over site	Travelling east over site	AR
BH005	16/01/2017	VP4	Black-headed Gull	11	15:21:00	51	0	51	0	WD4, (Conifer plantation) Travelling over site	Travelling east over site within PCH	AR
BH006	04/02/2017	VP5a	Black-headed Gull	12	09:31:00	37	11	26	0	GA1, (Improved agricultural grassland) HH3, (Wet heath) In flight to grassland field	Flock flying from south into grassland field to feed.	AR

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
BH001	05/12/2018	12:54:00	Black-headed Gull	8	Adult	Flock from farmland moving onto site briefly. 20s Band 2.	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Opposite greenbank cottages, 55.120043, -7.202550	Mud Shore LS4	Black-headed Gull	1		Mud Shore LS4	On water	JOS
16/08/2016	Lough Foyle, Opposite greenbank cottages, 55.120043, -7.202550	Mud Shore LS4	Black-headed Gull	3		Mud Shore LS4	Perched on rocks	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Shingle shore LS1	Black-headed Gull	38		Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Black-headed Gull	82		Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Mud Shore LS4	Black-headed Gull	105		Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Mud Shore LS4	Black-headed Gull	32		Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1	Black-headed Gull	25		Shingle shore LS1	Roosting	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Shingle shore LS1/ Mud Shore LS4	Black-headed Gull	14		Shingle shore LS1/ Mud Shore LS4	Sitting on rocks/shingle shore	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Shingle shore LS1	Black-headed Gull	3		Shingle shore LS1	Roosting on shingle	JOS
16/08/2016	Ladys bay beach, Buncrana, 55.118486, -7.460513	Sand Shore LS2	Black-headed Gull	2		Sand Shore LS2	Roosting	JOS
16/08/2016	Ladys bay beach, Buncrana, 55.122148, -7.458889	Sand Shore LS2	Black-headed Gull	1		Sand Shore LS2	Roosting on sand	JOS

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Estuary MW4	Black-headed Gull	3		Estuary MW4	Fly south. Band 1.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Estuary MW4	Black-headed Gull	2		Estuary MW4	Fly south.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Shingle shore LS1	Black-headed Gull	140		Shingle shore LS1	Roosting on shingle with HG. Disturbed at 07:41 by dog walkers. Lift, disperse and land on shingle spit and shore further N.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Shingle shore LS1	Black-headed Gull	1		Shingle shore LS1		JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Estuary MW4	Black-headed Gull	3		Estuary MW4	Fly south. Band 1/2. 50 seconds.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Estuary MW4	Black-headed Gull	2		Estuary MW4	Fly south, land on water.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, - 7.253809	Estuary MW4	Black-headed Gull	2		Estuary MW4	Fly S of Culmore Point, out of view. Band 1.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.079479, - 7.247071	Sand shore LS2	Black-headed Gull	50		Sand shore LS2	Roosting on shore.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.068217, - 7.255450	Shingle shore LS1	Black-headed Gull	36		Shingle shore LS1	Roosting.	JOS
01/09/2016	Lough Foyle, Drumskeellan, 55.090511, - 7.232631	Estuary MW4	Black-headed Gull	3		Estuary MW4	Fly south, low over water, band 1.	JOS

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
01/09/2016	Lough Foyle, Drumskillan, 55.090511, -7.232631	Sand shore LS2	Black-headed Gull	19		Sand shore LS2	Roosting on shore.	JOS
01/09/2016	Lough Foyle, Aught, 55.103160, -7.214660	Shingle shore LS1	Black-headed Gull	11		Shingle shore LS1		JOS
01/09/2016	Lough Foyle, Aught, 55.106614, -7.212895	Estuary MW4	Black-headed Gull	1		Estuary MW4	On water	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Black-headed Gull	2		Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, Three trees, 55.115854, -7.206962	Shingle shore LS1	Black-headed Gull	4		Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, S of Quigleys Point, 55.121871, -7.198044	Estuary MW4	Black-headed Gull	4		Estuary MW4	Fly south. Band 2.	JOS
01/09/2016	Lough Foyle, S of Quigleys Point, 55.121871, -7.198044	Estuary MW4	Black-headed Gull	7		Estuary MW4	On water.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	GA1/Estuary MW4	Black-headed Gull	4		GA1/Estuary MW4	Fly over track. Band 1.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	Shingle shore LS1	Black-headed Gull	21		Shingle shore LS1	Roosting on shingle	JOS
01/09/2016	Ladys bay beach, Buncrana, 55.113528, -7.468302	Sand shore LS2	Black-headed Gull	4		Sand shore LS2	Roosting on sand shore.	JOS
01/09/2016	Ladys bay beach, Buncrana, 55.113528, -7.468302	Estuary MW4, Sand shore LS2	Black-headed Gull	1		Estuary MW4, Sand shore LS2	Flies N, lands on water, band 1.	JOS
01/09/2016	Lough Foyle, Aught, 55.103160, -7.214660	Estuary MW4	Black-headed Gull	1		Estuary MW4	Flies N to S, low over water. Band 1. 40 secs.	JOS

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
20/09/2016	Lough Foyle	MW2	Black-headed Gull	115		MW2, (Sea inlets and bays)		HH, TR
30/11/2016	Lough Foyle		Black-headed Gull	12		MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Black-headed Gull	3		MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Black-headed Gull	210		MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Black-headed Gull	23		MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Black-headed Gull	35		MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Black-headed Gull	33		MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Black-headed Gull	27		MW2, (Sea inlets and bays)		TR
10/02/2017	Lough Foyle		Black-headed Gull	110	W	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Black-headed Gull	63	P	MW4, (Estuaries)	On Water	TR
10/02/2017	Lough Foyle		Black-headed Gull	2	AW	MW4, (Estuaries)	Above Water	TR
13/02/2017	Lough Swilly	2009	Black-headed Gull	6	F	LS2, (Sand shores)	Flying	TR
28/02/2017	Lough Foyle		Black-headed Gull	79	AW	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	70	AW	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	30	OW	MW4, (Estuaries)	On Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	12	AW	MW4, (Estuaries)	Above Water	TR

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
28/02/2017	Lough Foyle		Black-headed Gull	10	AW	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	6	AW	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	6	OW	MW4, (Estuaries)	On Water	TR
28/02/2017	Lough Foyle		Black-headed Gull	2	AW	MW4, (Estuaries)	Above Water	TR
14/03/2017			Black-headed Gull	230	T	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017			Black-headed Gull	35	T	LS2, (Sand shores)	Terrestrial	TR
14/03/2017			Black-headed Gull	35	AW	MW4, (Estuaries)	Above Water	TR
14/03/2017			Black-headed Gull	22	OW	MW4, (Estuaries)	On Water	TR
14/03/2017			Black-headed Gull	2	OW	MW4, (Estuaries)	On Water	TR
28/03/2017			Black-headed Gull	14	OW	MW4, (Estuaries)	On Water	TR
28/03/2017			Black-headed Gull	12	T	Terrestrial	Terrestrial	TR
28/03/2017			Black-headed Gull	9	OW	MW4, (Estuaries)	On Water	TR
28/03/2017			Black-headed Gull	9	AW	LS2, (Sand shores)	Above Water	TR
28/08/2017	Culmore Point		Black-headed Gull	145	F	MW2, (Sea inlets and bays)	Flying	AOD
28/08/2017	Quigleys Point		Black-headed Gull	50	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Culmore Landfill Site		Black-headed Gull	33	F	MW2, (Sea inlets and bays)	Flying	AOD

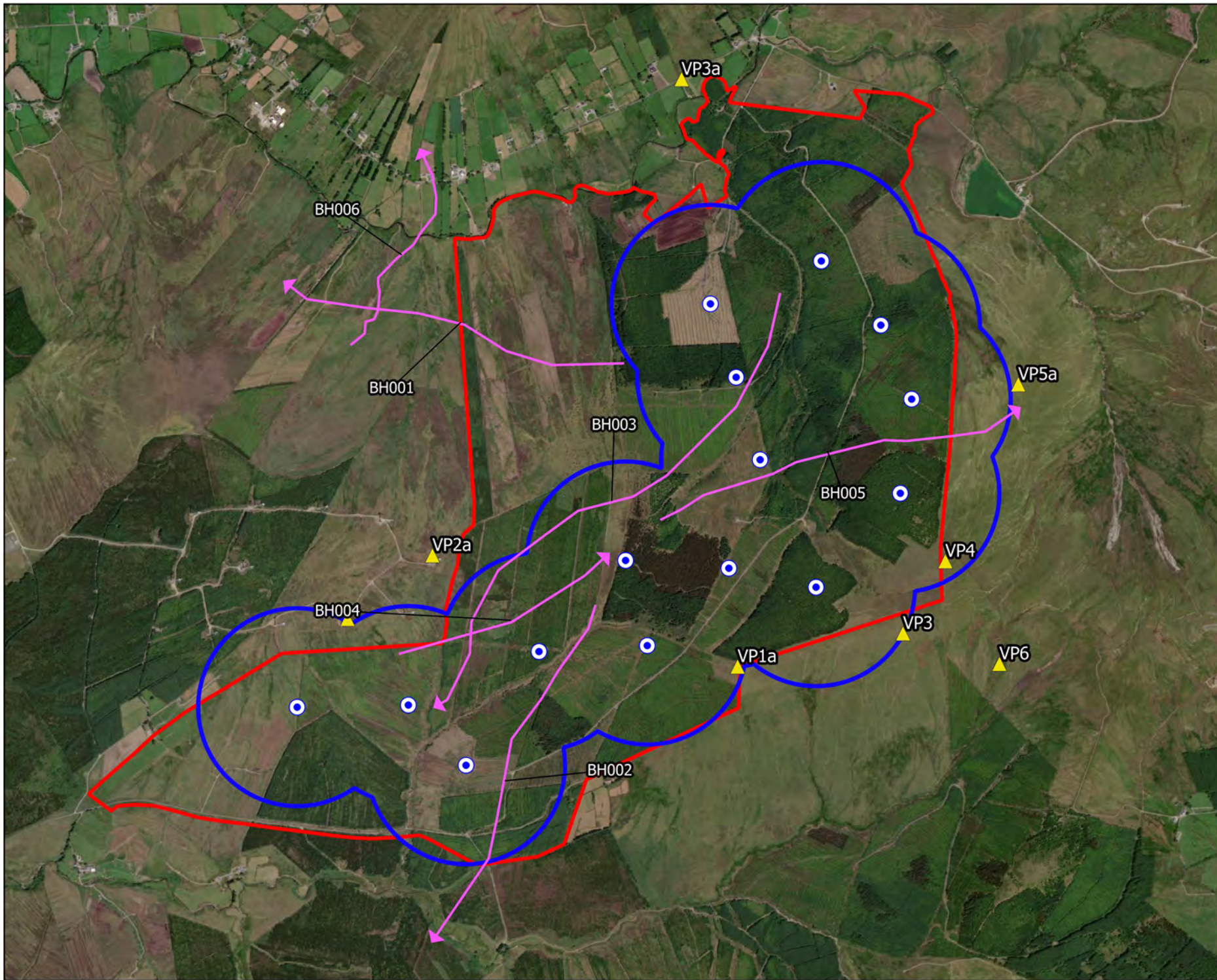
Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
28/08/2017	South of Carrowkeel		Black-headed Gull	32	F	MW2, (Sea inlets and bays)	Flying	AOD
28/08/2017	Rinenore Point		Black-headed Gull	21	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Sand Point		Black-headed Gull	7	AW	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Ture Point		Black-headed Gull	2	OW	MW2, (Sea inlets and bays)	On Water	AOD
29/08/2017	Banket Nook		Black-headed Gull	490	AW	MW2, (Sea inlets and bays)	Above Water	AOD
29/08/2017	Inch levels Hide		Black-headed Gull	350	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Buncrana beach		Black-headed Gull	17	F	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Culmore Point		Black-headed Gull	38	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Blanket Nook		Black-headed Gull	18	F	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Rinenore Point		Black-headed Gull	17	F	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Quigleys Point		Black-headed Gull	3	F	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Inch Levels South Hide		Black-headed Gull	520	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Blanket Nook		Black-headed Gull	50	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Rinenore Point		Black-headed Gull	39	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Point		Black-headed Gull	28	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Ture Point		Black-headed Gull	18	F	MW2, (Sea inlets and bays)	Flying	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
28/09/2017	Sandpoint		Black-headed Gull	12	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Landfill		Black-headed Gull	10	F	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Quigleys Point		Black-headed Gull	2	OW	MW2, (Sea inlets and bays)	On Water	AOD
01/02/2018	Inch		Black-headed Gull	100	OW	MW2, (Sea inlets and bays)		AOD
01/02/2018	Culmore country park		Black-headed Gull	71	OW	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Crana estuary		Black-headed Gull	45	T	MW2, (Sea inlets and bays)		AOD
01/02/2018	Culmore Point		Black-headed Gull	18	T	MW2, (Sea inlets and bays)		AOD
01/02/2018	Sand Point		Black-headed Gull	12	T	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Rinemore point		Black-headed Gull	5	F	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Buncrana Pier		Black-headed Gull	5	F	MW2, (Sea inlets and bays)		AOD
19/02/2018	Inch		Black-headed Gull	540	F	MW2, (Sea inlets and bays)	Flying	AOD
19/02/2018	White strand Buncrana		Black-headed Gull	21	F	MW2, (Sea inlets and bays)	Flying	AOD
19/02/2018	Crana estuary		Black-headed Gull	8	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	Buncrana Pier		Black-headed Gull	2	F	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Culmore country park		Black-headed Gull	180	OW	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Sand Point		Black-headed Gull	165	T	MW2, (Sea inlets and bays)	Terrestrial	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
20/02/2018	Culmore Point		Black-headed Gull	78	T	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Carrowkeel		Black-headed Gull	6	F	MW2, (Sea inlets and bays)	Flying	AOD
15/04/2018	Inch Lough / Levels		Black-headed Gull	450	T	GA1, (Improved agricultural grassland)	GA1, (Improved agricultural grassland)	ND
20/04/2018	Crana River Lough Swilly		Black-headed Gull	23	AW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
21/04/2018	Lough foyle		Black-headed Gull	2	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/04/2018	Inch Lough / Levels		Black-headed Gull	1600	OW	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
28/04/2018	Crana River Lough Swilly		Black-headed Gull	9	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
29/04/2018	Lough foyle		Black-headed Gull	11	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
06/05/2018	Inch Lough / Levels		Black-headed Gull	1350	OW	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
09/05/2018	Foyle Estuary		Black-headed Gull	8	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
09/05/2018	Crana River Lough Swilly		Black-headed Gull	7	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Activity	Surveyor
26/05/2018	Crana River Lough Swilly		Black-headed Gull	7	O	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/05/2018	Foyle Estuary		Black-headed Gull	4	OW	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
31/05/2018	Inch Lough / Levels		Black-headed Gull	600	OW	CW1, (Lagoons and saline lakes)	On Water	ND

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
09/01/2017	Waterfowl Survey	Black-headed Gull			AR
27/01/2017	Waterfowl Survey	Black-headed Gull			AR



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight



Drawing Title

Black-headed Gull Obs.
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.8

Scale

1:25000

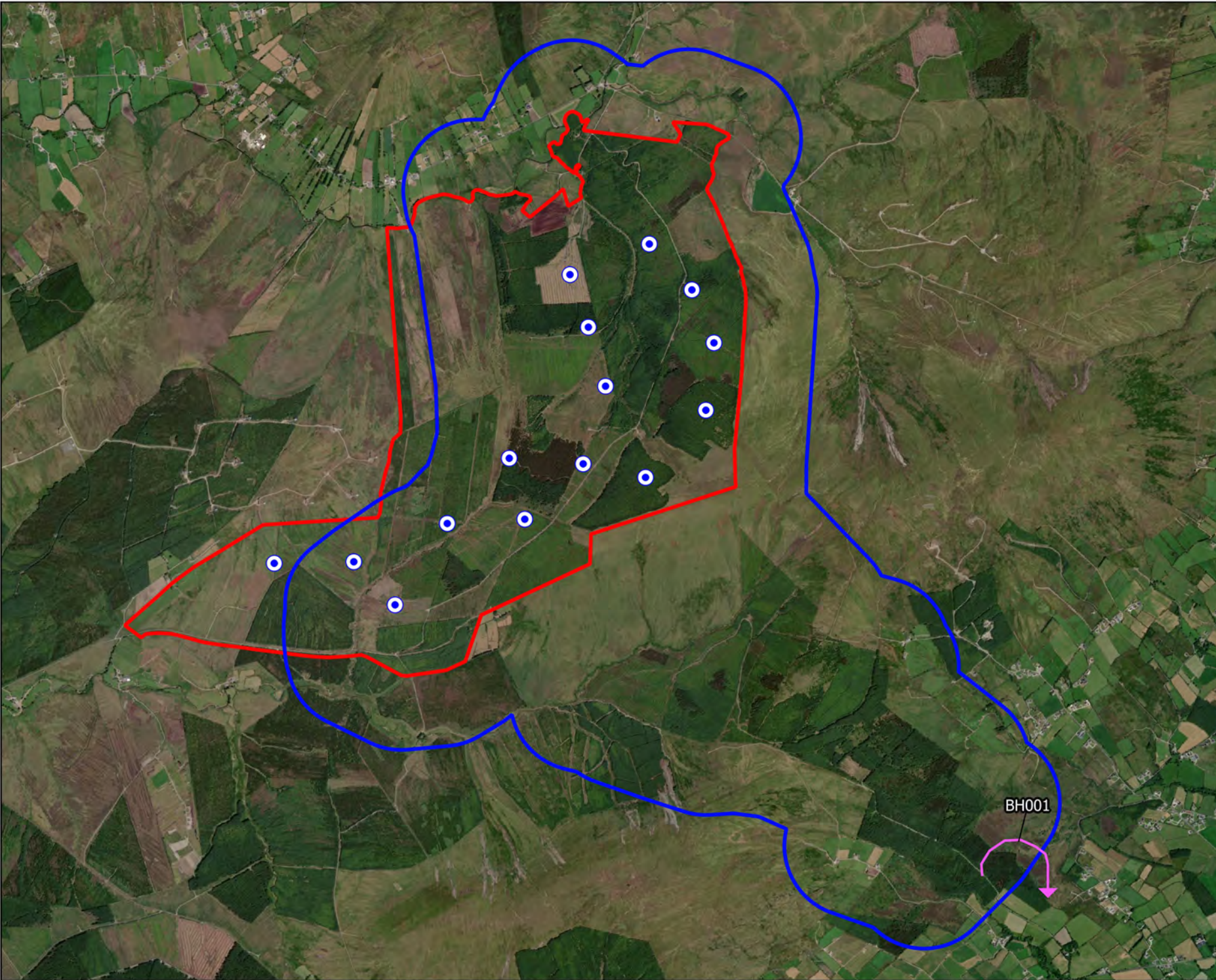
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10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title
**Black-headed Gull Observations
 Winter Walkover Surveys**

Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.5.4
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Scale 1:35000	Date 10/11/2021
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Table 11 Common Gull Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
CM001	11/12/2016	VP2a	Common Gull	19	11:59:00	45		45		WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight over SW tip of site	Flying west within PCH over SW tip of site boundary	AR
CM002	26/06/2017	VP4	Common Gull	1	16:51	130		130		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	CM flew S to N, c.1km west of VP4 at 60m to 30m over ground. Tracked until not visible due to obstructing forest trees	ND

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
CM001	22/01/2017	11:50	Common Gull	11	Male and female	HH3, (Wet heath) In flight west over site	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Common Gull	1	Mud Shore LS4	Feeding on mud shore	JOS
16/08/2016	Ladys bay beach, Buncrana, 55.113528, -7.468302	Sand Shore LS2	Common Gull	1	Sand Shore LS2	Roosting	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Mud Shore LS4	Common Gull	2	Mud Shore LS4	Perched on shingle	JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Common gull	3	Mud Shore LS4	Feeding on mud shore	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Common Gull	5	Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Sand shore LS2	Common Gull	7	Sand shore LS2	Roosting on sand shore.	JOS
16/08/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Mud Shore LS4	Common Gull	72	Mud Shore LS4	Feeding/roosting on mud shore	JOS
20/09/2016	Lough Foyle	MW2	Common Gull	13	MW2, (Sea inlets and bays)		HH, TR
05/10/2016	Lough Foyle	MW2	Common Gull	13	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Common Gull	4	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Common Gull	12	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Common Gull	2	MW2, (Sea inlets and bays)		TR
10/02/2017	Lough Foyle		Common Gull	2	MW4, (Estuaries)	On Water	TR
28/02/2017	Lough Foyle		Common Gull	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Common Gull	5	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lady's Bay Buncrana		Common Gull	10	LS2, (Sand shores)	Above Water	TR
14/03/2017			Common Gull	2	MW4, (Estuaries)	Above Water	TR
14/03/2017			Common Gull	6	MW4, (Estuaries)	On Water	TR
14/03/2017			Common Gull	10	MW4, (Estuaries)	Above Water	TR

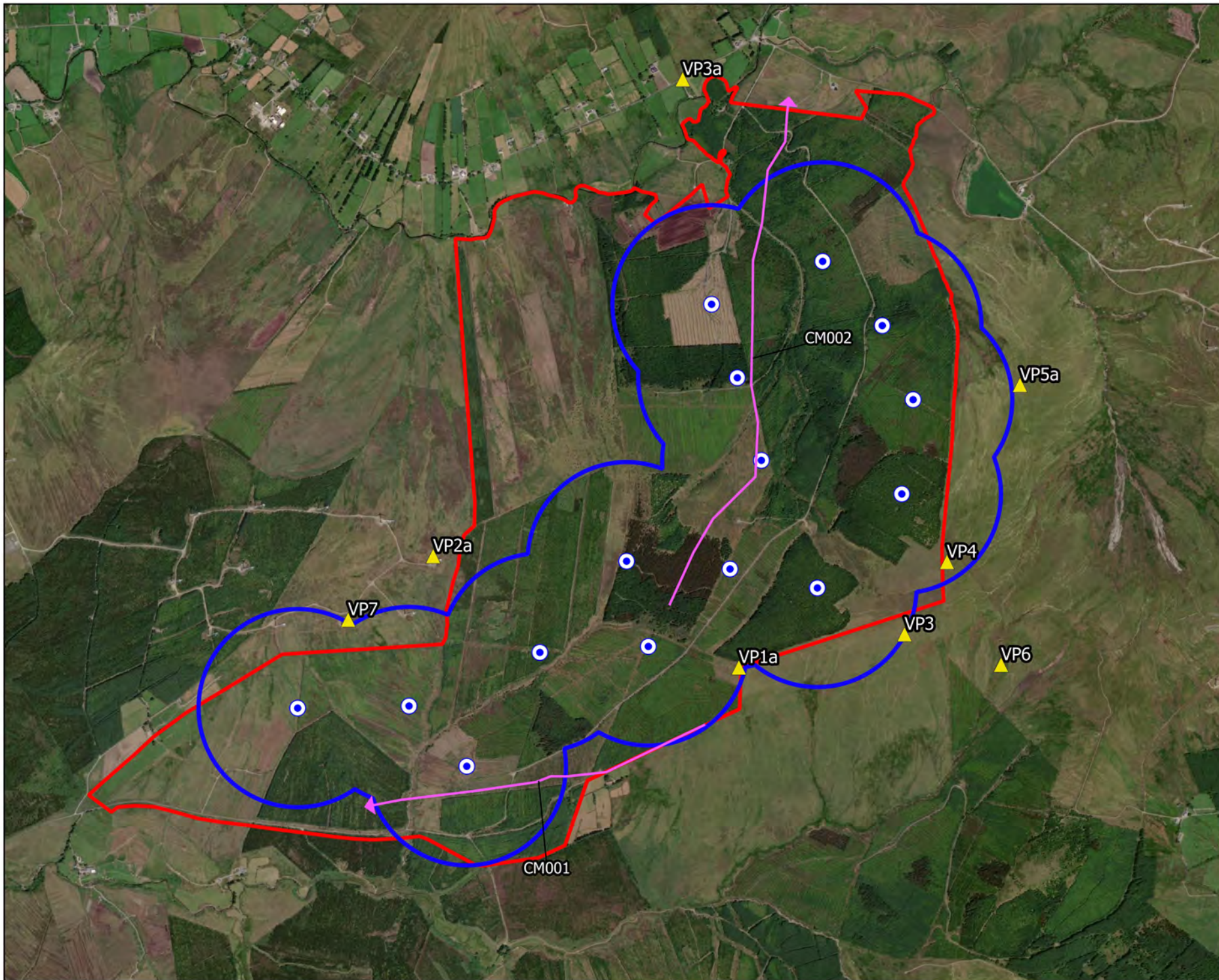
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/03/2017			Common Gull	2	Above Water	Above Water	TR
28/03/2017			Common Gull	3	On Water	On Water	TR
28/03/2017			Common Gull	14	LS2, (Sand shores)	Above Water	TR
28/08/2017	Vances Point		Common Gull	1	MW2, (Sea inlets and bays)	On Water	AOD
28/08/2017	Culmore Landfill Site		Common Gull	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Ture Point		Common Gull	2	MW2, (Sea inlets and bays)	On Water	AOD
28/08/2017	South of Carrowkeel		Common Gull	3	MW2, (Sea inlets and bays)	Flying	AOD
28/08/2017	Sand Point		Common Gull	4	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Culmore Point		Common Gull	20	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Rinenore Point		Common Gull	26	MW2, (Sea inlets and bays)	Flying	AOD
28/08/2017	Quigleys Point		Common Gull	29	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Quigleys Point		Common Gull	90	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Inch levels fields		Common Gull	1	GA1, (Improved agricultural grassland)	Terrestrial	AOD
29/08/2017	Buncrana beach		Common Gull	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Inch levels Hide		Common Gull	170	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Banket Nook		Common Gull	675	MW2, (Sea inlets and bays)	Above Water	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/09/2017	Rinenore Point		Common Gull	2	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Vances Point		Common Gull	2	MW2, (Sea inlets and bays)		AOD
16/09/2017	Ture Point		Common Gull	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Blanket Nook		Common Gull	9	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Culmore Point		Common Gull	11	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Inch Levels South Hide		Common Gull	17	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Sandpoint		Common Gull	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Point		Common Gull	8	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Rinenore Point		Common Gull	9	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Whitecastle		Common Gull	18	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Ture Point		Common Gull	22	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Blanket Nook		Common Gull	30	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Rinenore Point		Common Gull	52	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Culmore Landfill		Common Gull	53	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Inch Levels South Hide		Common Gull	80	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Buncrana Pier		Common Gull	3	MW2, (Sea inlets and bays)	Terrestrial	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/02/2018	Crana estuary		Common Gull	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Carrowkeel		Common Gull	12	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Culmore Point		Common Gull	25	MW2, (Sea inlets and bays)	On Water	AOD
19/02/2018	White strand Buncrana		Common Gull	3	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	Inch		Common Gull	9	MW2, (Sea inlets and bays)	Flying	AOD
19/02/2018	Crana estuary		Common Gull	12	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Ture point		Common Gull	6	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Rinemore point		Common Gull	9	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Quigleys point		Common Gull	12	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Carrowkeel		Common Gull	12	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Vances point		Common Gull	14	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Quigleys point		Common Gull	22	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Culmore Point		Common Gull	42	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Sand Point		Common Gull	50	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/04/2018	Crana River Lough Swilly		Common Gull	18	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
09/05/2018	Crana River Lough Swilly		Common Gull	8	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
09/05/2018	Foyle Estuary		Common Gull	29	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/05/2018	Foyle Estuary		Common Gull	3	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
09/01/2017	Waterfowl Survey	Common Gull			AR
27/01/2017	Waterfowl Survey	Common Gull			AR
05/05/2017	Waterfowl Survey	Common Gull			AR
05/06/2018	Breeding Raptor Survey	Common Gull	6	GA1, (Improved agricultural grassland) feeding in silage cut field	AOD



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight



Drawing Title

Common Gull Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

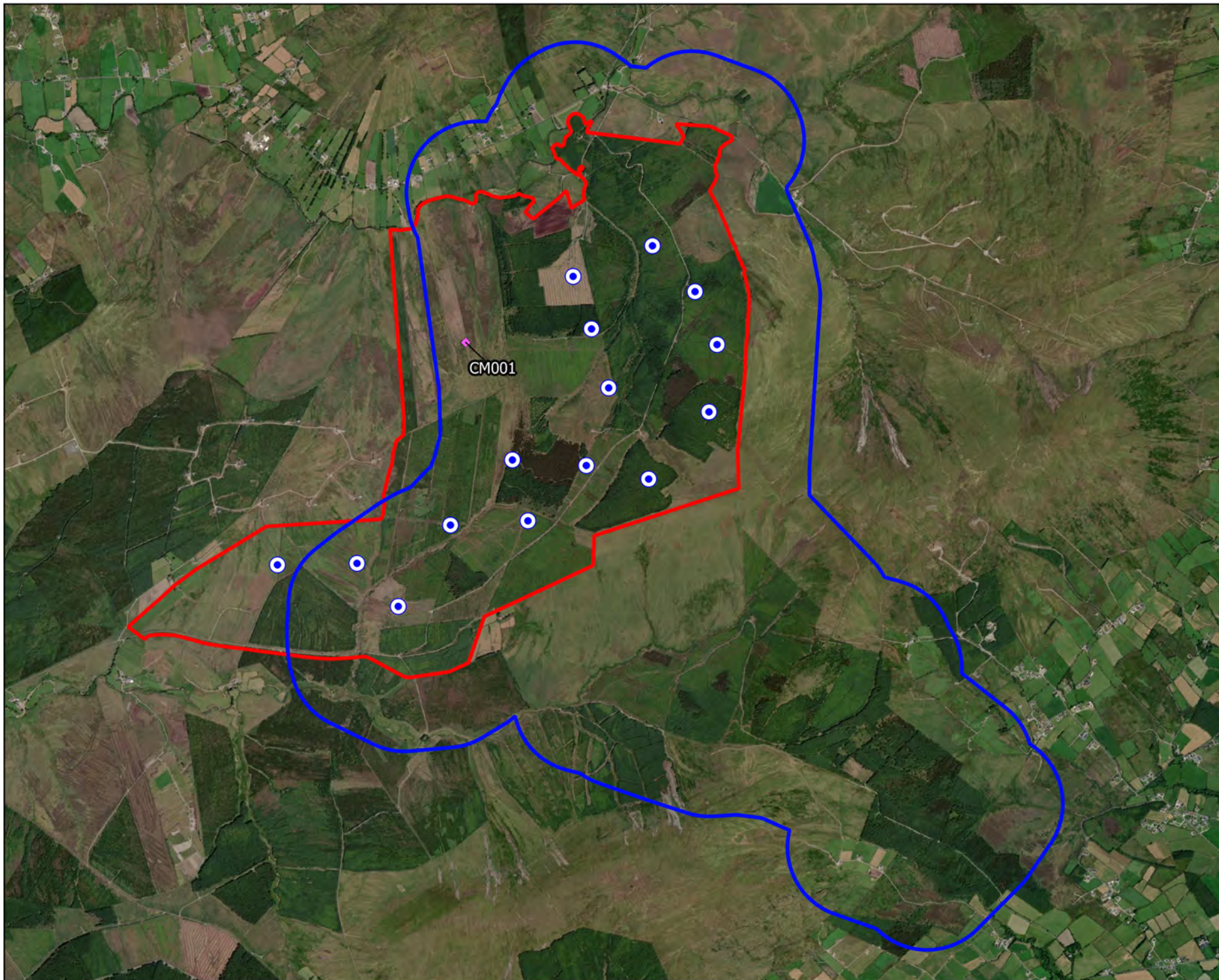
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observations



Drawing Title
**Common Gull Observations
 Winter Walkover Surveys**

Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.5.6
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Table 12 Grey Heron Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
H001	15/10/2016	VP5a	Grey Heron	1	08:11:00	66	0	66	0	WD4, (Conifer plantation) Flying N. over conifers in PCH.		AR
H002	30/10/2016	VP6	Grey Heron	1	07:26:00	43	10	33	0	FW1, (Eroding/upland rivers) WD4, (Conifer plantation) WD4, (Conifer plantation) Flying west	Flying west over site, landing in river.	AR
H003	13/12/2016	VP4	Grey Heron	1	11:22:00	30	0	30	0	HH3, (Wet heath) In flight towards reservoir	Flying NW along site boundary possibly towards reservoir	AR
H0012	11/03/2017	VP3	Grey Heron	1	18:41:00	31	0	31	0	WD4, (Conifer plantation) In flight	Flying SW over site within PCH.	AR
H004	29/03/2017	VP4	Grey Heron	1	17:05:00	71	0	71	0	WD4, (Conifer plantation) In flight	Travelling NE within PCH towards reservoir	AR
H005	09/05/2017	VP1a	Grey Heron	3	09:42:00	40		40	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) flying	3 Herons flew in from SE (behind VP1a, 300M TO E) calling, descending from 70m to 50m over ground, out of view when passing over conifer forest due to trees cover obstruction.	ND
H006	22/09/2017	VP5a	Grey Heron	1	15:14:00	59	0	59	0	PB2, (Upland blanket bog) In flight	Flying west offsite towards reservoir.	AR
H007	12/10/2017	VP3	Grey Heron	1	08:11:00	62	0	62	0	PB2, (Upland blanket bog) In flight	Individual flying NW over site within PCH in straight flightpath	AR
H008	27/10/2017	VP2a	Grey Heron	1	11:12:00	95	0	95	0	HH3, (Wet heath) WD4, (Conifer plantation) In flight	In flight NE over site in PCH.	AR
H009	18/12/2017	VP2a	Grey Heron	1	09:41:00	91	0	91	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Flying east over site	AR
H0010	26/05/2018	VP3	Grey Heron	1	18:10:00	16	16			PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Traversing Site area		ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
H0011	21/09/2018	VP3	Grey Heron	1	11:18:00	70		70		PB2, (Upland blanket bog) GS4, (Wet grassland) TRAVELLING		AOD
H0013	07/10/2018	VP1	Grey Heron	1	15:05:00	135	0	135	0	WD4, (Conifer plantation) HH3, (Wet heath) In flight	Flying NE offsite in PCH	AR
H0014	14/10/2018	VP2	Grey Heron	1	15:10:00	31	0	31	0	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) In flight	Flying low over north of site along river. Calling	AR
H0015	11/04/2019	VP5	Grey Heron	1	07:23:00	55		55		WD4, (Conifer plantation) PB2, (Upland blanket bog)		JB
H0016	18/04/2019	VP4	Grey Heron	1	09:03:00	12		12		WD4, (Conifer plantation) Travelling		JB
H0017	26/06/2019	VP3a	Grey Heron	1	09:39:00	72	72			WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) crossed valley from south to north. Travelled on over forestry until out of view	crossed valley from south to north. Travelled on over forestry until out of view	ND

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
H001	29/10/2016	13:30:00	Grey Heron	1		PB2, (Upland blanket bog) Flying SW	AR
H002	18/12/2016	09:07:00	Grey Heron	1		WD4, (Conifer plantation) In flight over north boundary	AR
H003	18/12/2016	14:25:00	Grey Heron	1		FW4, (Drainage ditches) In flight from stream	AR
H004	18/03/2017	11:24:00	Grey Heron	1		HH3, (Wet heath) Flying North	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Mud Shore LS4	Grey Heron	1	Mud Shore LS4	Band 1.	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Shingle shore LS1	Grey Heron	1	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Grey Heron	5	Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Mud Shore LS4	Grey Heron	1	Mud Shore LS4	Feeding	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Shingle shore LS1	Grey Heron	1	Shingle shore LS1		JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Sand shore LS2	Grey Heron	1	Sand shore LS2	Roosting on shore, disturbed by surveyor, lifts from shore flies north.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Shingle Shore LS1	Grey Heron	1	Shingle Shore LS1	Likely individual that flew N earlier. Lands on shingle shore.	JOS
01/09/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Estuary MW4	Grey Heron	1	Estuary MW4	Hunting	JOS
01/09/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Estuary MW4	Grey Heron	1	Estuary MW4	Feeding on shore.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071		Grey Heron	1		Flies N.	JOS
01/09/2016	Lough Foyle, Drumskeellan, 55.090511, -7.232631	Sand shore LS2	Grey Heron	1	Sand shore LS2		JOS
01/09/2016	Lough Foyle, Aught, 55.103160, -7.214660	Shingle shore LS1	Grey Heron	1	Shingle shore LS1	Hunting.	JOS
01/09/2016	Lough Foyle, Three trees, 55.115854, -7.206962	Shingle shore LS1	Grey Heron	1	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Turk, 55.168577, -7.300327	Lake	Grey Heron	1	Lake	On water.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.068217, -7.255450	Shingle shore LS1	Grey Heron	1	Shingle shore LS1	Roosting.	JOS
20/09/2016	Lough Foyle	MW2	Grey Heron	6	MW2, (Sea inlets and bays)		HH, TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
30/11/2016	Lough Foyle		Grey Heron	2	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Grey Heron	2	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Grey Heron	1	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Grey Heron	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Grey Heron	3	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Grey Heron	2	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Grey Heron	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Grey Heron	2	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Grey Heron	1	MW2, (Sea inlets and bays)	Perched	TR
10/02/2017	Lough Foyle		Grey Heron	5	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Grey Heron	4	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Grey Heron	2	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Grey Heron	2	MW4, (Estuaries)	Wading	TR
28/02/2017	Lough Foyle		Grey Heron	1	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Grey Heron	1	MW4, (Estuaries)	Above Water	TR
14/03/2017			Grey Heron	2	MW4, (Estuaries)	Wading	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/03/2017			Grey Heron	1		Above Water	TR
28/03/2017			Grey Heron	9		Wading	TR
28/03/2017			Grey Heron	2		Above Water	TR
28/03/2017			Grey Heron	1		Above Water	TR
28/08/2017	Culmore Point		Grey Heron	3	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Culmore Landfill Site		Grey Heron	6	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Sand Point		Grey Heron	9	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Ture Point		Grey Heron	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	South of Carrowkeel		Grey Heron	5	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Inch levels fields		Grey Heron	2	GA1, (Improved agricultural grassland)	Terrestrial	AOD
29/08/2017	Banket Nook		Grey Heron	6	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Blanket Nook		Grey Heron	7	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Inch Levels South Hide		Grey Heron	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Rinenore Point		Grey Heron	1	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Blanket Nook		Grey Heron	3	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Landfill		Grey Heron	2	MW2, (Sea inlets and bays)	Terrestrial	AOD

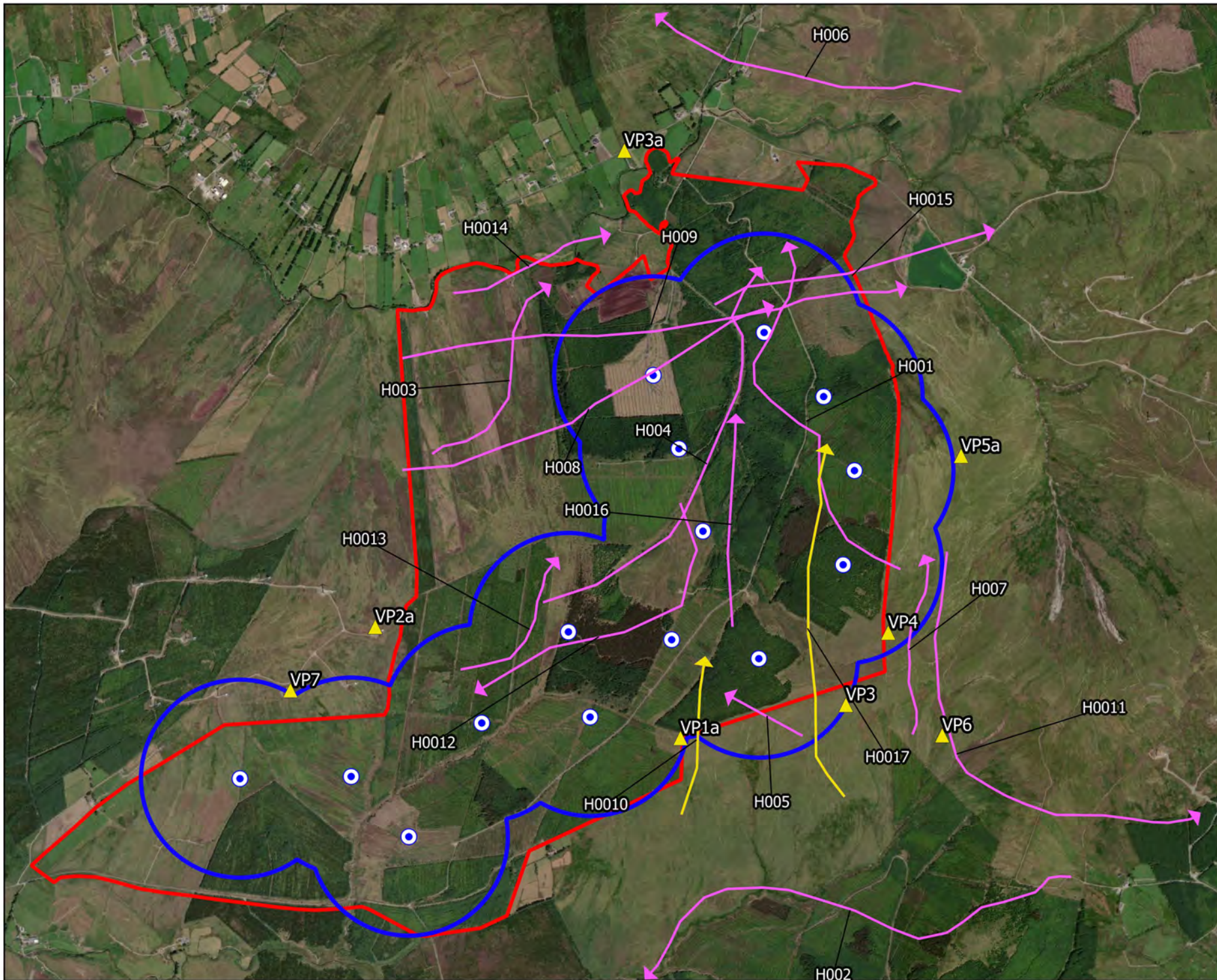
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/09/2017	Whitecastle		Grey Heron	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
31/10/2016			Grey Heron	1			AR
09/01/2017			Grey Heron				AR
27/01/2017			Grey Heron				AR
22/10/2017			Grey Heron				AR
19/11/2017			Grey Heron				AR
02/12/2017			Grey Heron				AR
22/12/2017			Grey Heron				AR
02/01/2018			Grey Heron				AR
21/01/2018			Grey Heron				AR
04/03/2018			Grey Heron				AR
01/02/2018	Culmore country park		Grey Heron	5	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Rinemore point		Grey Heron	1	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
19/02/2018	Inch		Grey Heron	3	MW2, (Sea inlets and bays)	Above Water	AOD
20/02/2018	Whitecastle		Grey Heron	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
21/04/2018	Lough foyle		Grey Heron	4	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
29/04/2018	Lough foyle		Grey Heron	1	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
06/05/2018	Inch Lough / Levels		Grey Heron	1	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
09/05/2018	Foyle Estuary		Grey Heron	4	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/05/2018	Foyle Estuary		Grey Heron	11	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
31/05/2018	Inch Lough / Levels		Grey Heron	8	CW1, (Lagoons and saline lakes)	On Water	ND
21/11/2018	Fullerton dam		Grey Heron	1	Feeding on river	Above Water	AOD
18/12/2018	Owenkillew river		Grey Heron	1	Flushed, flew west	Above Water	AOD
21/01/2019	Owenkillew river		Grey Heron	1	Flushed from river flew west	Above Water	AOD
06/02/2019	Crana river		Grey Heron	1	FW1, (Eroding/upland rivers) Flushed from river. called	Flying	AOD

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
17/12/2016	During HH roost survey	Grey Heron	1	In flight north of site	AR
23/01/2017	During HH dusk survey	Grey Heron		Flying west offsite	AR
12/03/2017	During HH roost survey	Grey Heron		Flying south over site	AR
09/07/2017	Glenard	Grey Heron	2	along riverside	AR
21/10/2017	HH Roost Survey	Grey Heron	1	In flight	AR
30/11/2017	HH Roost Survey	Grey Heron	1	In flight	AR



Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
27/01/2018	During HH roost survey	Grey Heron		In flight offsite	AR
06/02/2019	HHVP7	Grey Heron	1	Flying	AOD



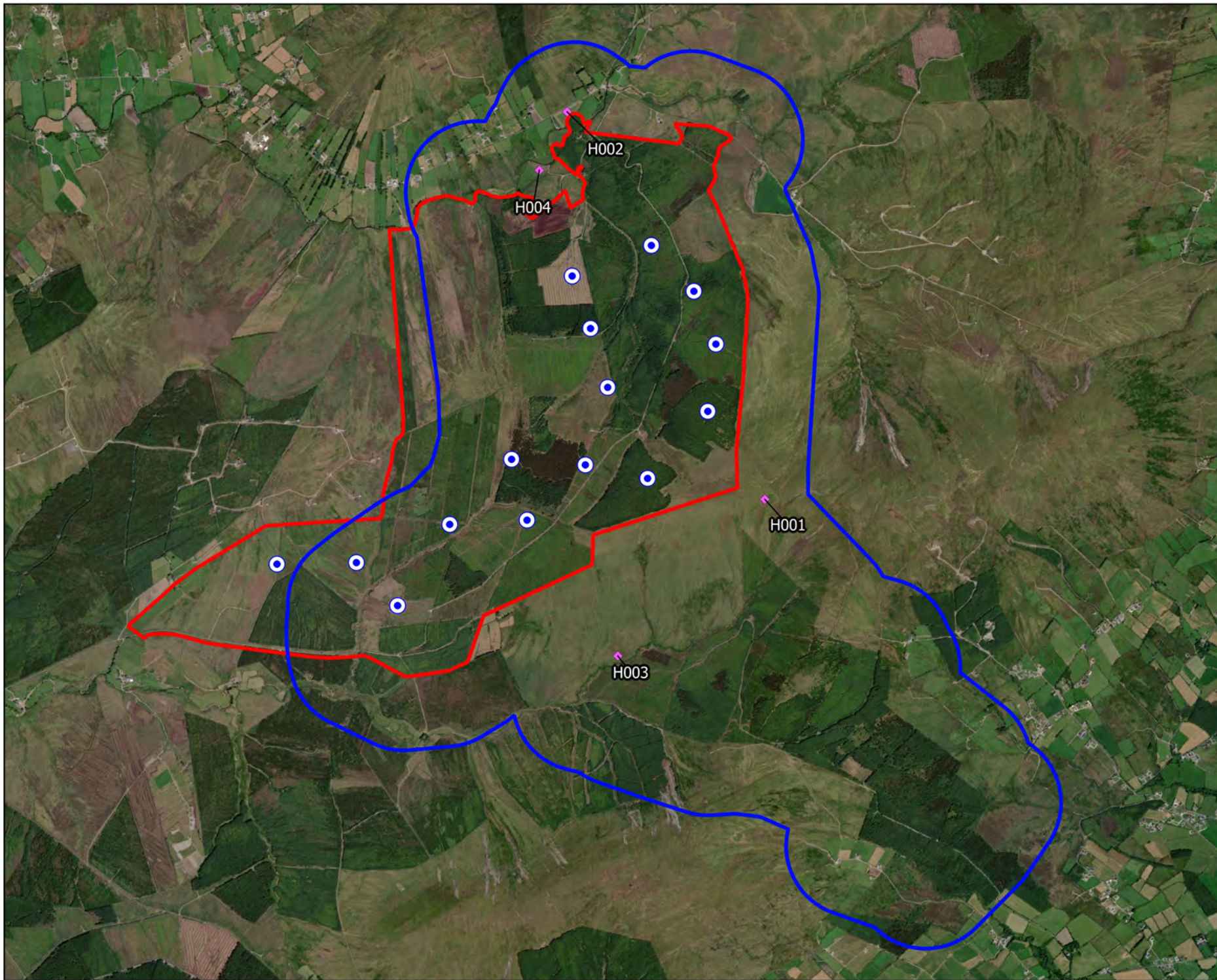
Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



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Drawing Title Grey Heron Observations Vantage Point Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.10
Scale 1:25000	Date 10/11/2021
 <p>MKO Planning and Environmental Consultants Tuam Road, Galway Ireland, H91 VV84 +353 (0) 91 735611 email: info@mkofireland.ie Website: www.mkofireland.ie</p>	



Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observations



Drawing Title

Grey Heron Observations
Winter Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.5.7

Scale

1:35000

Date

10/11/2021



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Table 13 Greylag Goose Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
GJ001	20/11/2016	VP4	Greylag Goose	3	13:50:00	35	0	0	35	HH3, (Wet heath) WD4, (Conifer plantation) In flight over site	Flying SW above PCH offsite	AR
GJ002	04/12/2016	VP1a	Greylag Goose	6	12:13:00	55	0	55	0	HH3, (Wet heath) PB2, (Upland blanket bog) Flying SW along site boundary	Flying south west along site boundary across Sorne Hill	AR
GJ003	19/01/2018	VP3	Greylag Goose	125	13:05:00	63	0	63	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Flying west in PCH towards Inch Levels. Flew out of sight.	AR
GJ004	08/02/2018	VP2a	Greylag Goose	5	07:56	35			35	WD4, (Conifer plantation) Calling flock flew over site heading NW		AOD
GJ005	29/03/2019	VP2	Greylag Goose	23	07:14:00	95		95		WD4, (Conifer plantation) Calling flock flying east. likely moving to staging grounds for migration	N/A	AOD

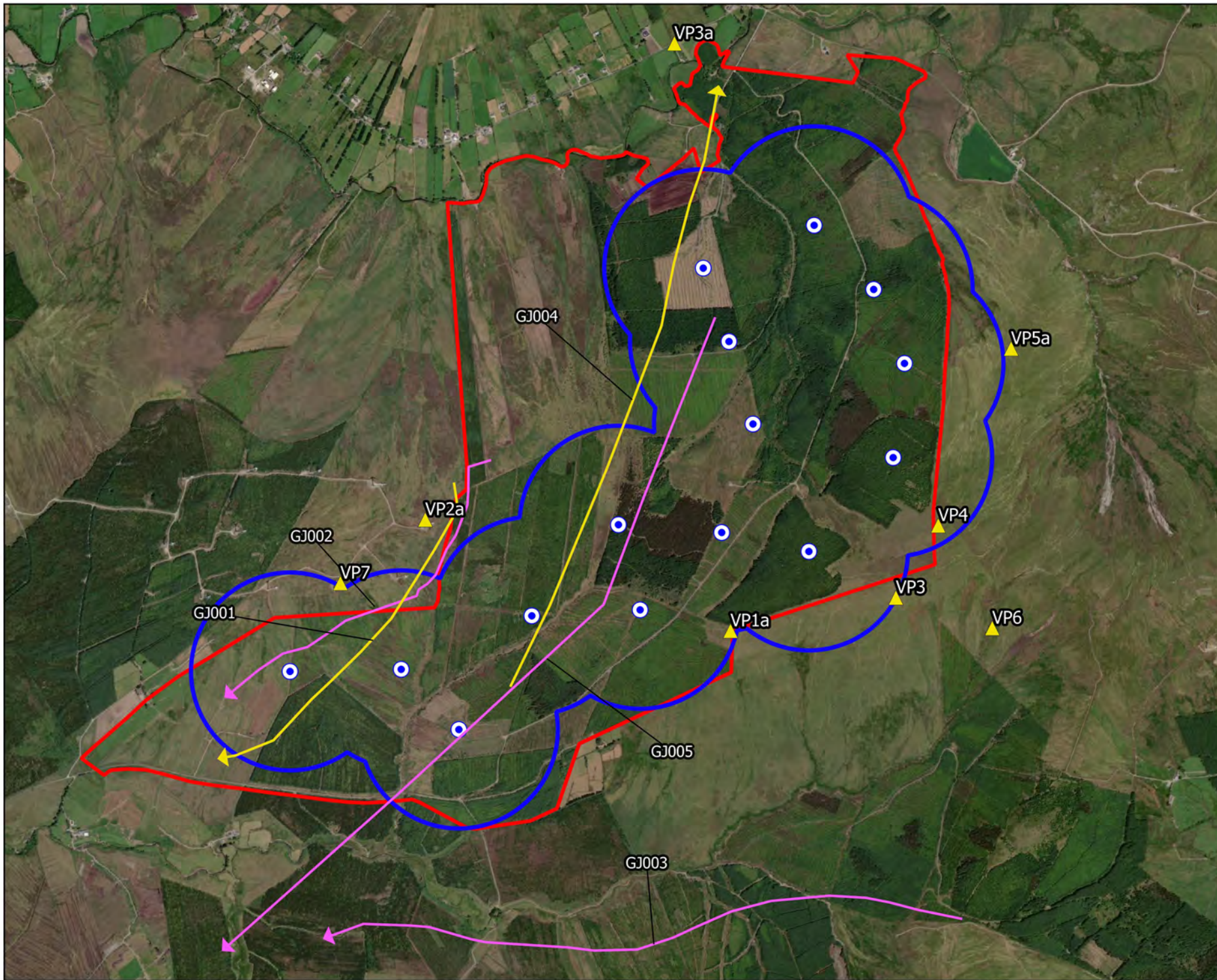
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon shore and Lough Foyle	FL7	Greylag Goose	4	FL7, (Reservoirs)	calling/feeding	AR
10/12/2016	Inch level 3		Greylag Goose	1	BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
10/12/2016	Inch level 2		Greylag Goose	23	BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
10/12/2016	Inch level 4		Greylag Goose	44	GA1, (Improved agricultural grassland)	Feeding	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
10/12/2016	Inch Level 1		Greylag Goose	1021	BC1, (Arable crops) GA1, (Improved agricultural grassland)	Feeding	TR
20/12/2016	Inch Levels		Greylag Goose	1122	BC1, (Arable crops) GA1, (Improved agricultural grassland)		TR
09/01/2017	Inch Lough	11	Greylag Goose	4	FL8, (Other artificial lakes and ponds)	Feeding in lake	AR
09/01/2017	Inch Levels	13	Greylag Goose	62	GA1, (Improved agricultural grassland)	In flight in Improved agricultural grassland	AR
09/01/2017	Inch Levels	15	Greylag Goose	290	GA1, (Improved agricultural grassland)	Feeding/calling	AR
09/01/2017	Inch Levels	16	Greylag Goose	302	GA1, (Improved agricultural grassland)	Feeding in grassland fields	AR
27/01/2017	Inch Levels	8	Greylag Goose	110	GA1, (Improved agricultural grassland)	Feeding in grassland fields	AR
27/01/2017	Inch Levels	5	Greylag Goose	131	GA1, (Improved agricultural grassland)	Feeding, some in flight into field	AR
27/01/2017	Inch Levels	2	Greylag Goose	158	GA1, (Improved agricultural grassland)	Feeding/calling	AR
27/01/2017	Inch Levels	7	Greylag Goose	311	GA1, (Improved agricultural grassland)	Feeding amongst WS	AR
10/02/2017	Lough Foyle		Greylag Goose	30	GA1, (Improved agricultural grassland)	At far side of estuary behind tall bank	TR
10/02/2017	Lough Swilly	2006	Greylag Goose	34	GA1, (Improved agricultural grassland)	Terrestrial	TR
10/02/2017	Lough Swilly	2007	Greylag Goose	519	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	Inch Level	2011	Greylag Goose	164	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	Inch Level	2012	Greylag Goose	361	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	Inch Level	2012	Greylag Goose	405	GA1, (Improved agricultural grassland)	Terrestrial	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
14/03/2017			Greylag Goose	130	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017			Greylag Goose	235	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Greylag Goose	1	MW4, (Estuaries)	On Water	TR
28/03/2017			Greylag Goose	9	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Greylag Goose	112	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/03/2017			Greylag Goose	208	GA1, (Improved agricultural grassland)	Terrestrial	TR
08/04/2017	Inch levels		Greylag Goose	39	GA1, (Improved agricultural grassland)	Flying into grassland field	AR
08/04/2017	Inch levels		Greylag Goose	99	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
08/04/2017	Inch levels		Greylag Goose	200	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
20/04/2017	Inch levels		Greylag Goose	131	GA1, (Improved agricultural grassland)	Feeding amongst WS	AR
21/05/2017	Inch levels		Greylag Goose	2	FL8, (Other artificial lakes and ponds)	Feeding in Inch lake	AR
29/08/2017	Inch levels fields		Greylag Goose	15	GA1, (Improved agricultural grassland)	Terrestrial	AOD
29/08/2017	Inch levels Hide		Greylag Goose	92	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Banket Nook		Greylag Goose	138	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Blanket Nook		Greylag Goose	10	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Blanket Nook		Greylag Goose	12	MW2, (Sea inlets and bays)	Terrestrial	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
22/10/2017		IL7	Greylag Goose	96	GA1, (Improved agricultural grassland)	Foraging	AR
22/10/2017		IL3	Greylag Goose	141	GA1, (Improved agricultural grassland)	Foraging	AR
22/10/2017		IL4	Greylag Goose	312	GA1, (Improved agricultural grassland)	Foraging	AR
04/11/2017		IL3	Greylag Goose	121	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
19/11/2017		IL4	Greylag Goose	102	GA1, (Improved agricultural grassland)	Foraging in flooded fields	AR
19/11/2017		IL2	Greylag Goose	140	BC1, (Arable crops)	Foraging in flooded fields	AR
02/12/2017		IL3	Greylag Goose	122	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
22/12/2017		IL2	Greylag Goose	71	GA1, (Improved agricultural grassland)	Feeding grassland	AR
02/01/2018	Inch Levels	IL1	Greylag Goose	20	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
02/01/2018	Inch Levels	IL4	Greylag Goose	26	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
02/01/2018	Inch Levels	IL3	Greylag Goose	246	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
21/01/2018	South Inishowen	SI1	Greylag Goose	41	GA1, (Improved agricultural grassland)	In flight towards Inch Levels	AR
21/01/2018	South Inishowen	SI3	Greylag Goose	60	GA1, (Improved agricultural grassland)	In flight towards Inch Levels	AR
21/01/2018	Inch Levels	IL6	Greylag Goose	71	FL7, (Reservoirs)	Feeding in Inch Lake	AR
21/01/2018	Inch Levels	IL1	Greylag Goose	105	GA1, (Improved agricultural grassland)	Loafing/foraging	AR
21/01/2018	South Inishowen	SI2	Greylag Goose	125	GA1, (Improved agricultural grassland)	In flight towards Inch Levels	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
21/01/2018	Inch Levels	IL5	Greylag Goose	430	GA1, (Improved agricultural grassland)	Foraging in grass/stubble	AR
01/02/2018	Inch Road		Greylag Goose	850	GA1, (Improved agricultural grassland)	Terrestrial	AOD
19/02/2018	Inch		Greylag Goose	55	MW2, (Sea inlets and bays)	On Water	AOD
24/03/2018	Inch Levels	IL7	Greylag Goose	30	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL2	Greylag Goose	50	FL7, (Reservoirs)	In Inch Lake	AR
24/03/2018	Inch Levels	IL5	Greylag Goose	60	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
24/03/2018	Inch Levels	IL9	Greylag Goose	67	GA1, (Improved agricultural grassland)	Feeding in grassland	AR
15/04/2018	Inch Lough / Levels		Greylag Goose	92	GA1, (Improved agricultural grassland)	GA1, (Improved agricultural grassland)	ND



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title

Greylag Goose Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.11
Scale	Date
1:25000	10/11/2021

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Table 14 Herring Gull Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
HG001	26/05/2018	VP3	Herring Gull	1	18:28:00	60	30	30		PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) GB, 2LB and HG following closely in single stream of birds, observed concurrently		ND
HG002	26/05/2018	VP3	Herring Gull	4	18:44:00	82		82		PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Traversing Site area		ND
HG003	27/05/2018	VP6	Herring Gull	1	17:03:00	202		202		PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Flew from SE to NW / W across area of viewshed		ND
HG004	27/05/2018	VP6	Herring Gull	2	17:42:00	322	322			PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath)		ND
HG005	01/07/2018	VP3	Herring Gull	1	15:43:00	45	10	35		WD4, (Conifer plantation) PB2, (Upland blanket bog) Traversing area	June survey	ND
HG006	10/07/2018	VP3	Herring Gull	6	11:51:00	4	4			WD4, (Conifer plantation)		ND
HG007	15/07/2018	VP4	Herring Gull	1	18:09:00	95		95		WD4, (Conifer plantation) PB2, (Upland blanket bog) Traversing Site area S to N, passing 400m W of VP4		ND
HG008	21/07/2018	VP3	Herring Gull	1	15:11:00	25		25		WD4, (Conifer plantation) PB2, (Upland blanket bog) HG flew S to N c.50m over ground crossing over site		ND
HG009	13/05/2019	VP1a	Herring Gull	4	07:22:00	300		300		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet		ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										heath) Travelling W to E, passing over VP1a		
HG0010	26/06/2019	VP3a	Herring Gull	1	14:12:00	165	165			WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flew up valley west to east then turned north	flew up valley west to east then turned north	ND
HG0011	28/06/2019	VP6	Herring Gull	1	13:02:00	74		74		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) From SE flew from back of Crockanure then over forest, west to SW	From SE flew from back of Crockanure then over forest, west to SW	ND
HG0012	28/06/2019	VP6	Herring Gull	2	15:44:00	65	30	35		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) Flew slow into wind along forest edge. Undulating flight height and direction. Finally, out across forest, northward.	Flew slow into wind along forest edge. Undulating flight height and direction. Finally, out across forest, northward.	ND
HG0013	23/07/2019	VP5	Herring Gull	1	13:10:00	22			22	WD4, (Conifer plantation) Travelling		JB

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Mud Shore LS4	Herring Gull	2	Mud Shore LS4	Roosting	JOS
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Shingle shore LS1	Herring Gull	1	Shingle shore LS1		JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Opposite Greenbank Cottages, 55.120043, -7.202550	Mud Shore LS4	Herring Gull	3	Mud Shore LS4	On water	JOS
16/08/2016	Lough Foyle, Opposite Greenbank Cottages, 55.120043, -7.202550	Mud Shore LS4	Herring Gull	1	Mud Shore LS4	On water	JOS
16/08/2016	Lough Foyle, Opposite Greenbank Cottages, 55.120043, -7.202550	Mud Shore LS4	Herring gull	5	Mud Shore LS4	On water	JOS
16/08/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Herring Gull	1	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Mud Shore LS4	Herring Gull	1	Mud Shore LS4	Sitting on water	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Mud Shore LS4	Herring Gull	1	Mud Shore LS4	Sitting on water	JOS
16/08/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1	Herring Gull	3	Shingle shore LS1	Roosting	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Shingle shore LS1	Herring Gull	2	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Herring Gull	4	Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Mud Shore LS4	Herring Gull	16	Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Mud Shore LS4	Herring Gull	10	Mud Shore LS4	Feeding	JOS
16/08/2016	Ladys bay beach, Buncrana, 55.122148, -7.458889	Sand Shore LS2	Herring Gull	1	Sand Shore LS2	Roosting on sand	JOS
16/08/2016	Ladys bay beach, Buncrana, 55.118486, -7.460513	Sand Shore LS2	Herring Gull	1	Sand Shore LS2	Swimming	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Sand shore LS2	Herring Gull	2	Sand shore LS2		JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Shingle shore LS1	Herring Gull	15	Shingle shore LS1	Roosting on shingle with BH. Disturbed at 07:41 by dog walkers. Lift, disperse and land on shingle spit and shore further N.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Shingle shore LS1	Herring Gull	2	Shingle shore LS1	Roosting	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Estuary MW4/Shingle shore LS1	Herring Gull	1	Estuary MW4/Shingle shore LS1	Flies S, calling. Disturbed by dog walkers.	JOS
01/09/2016	Lough Foyle, Drumskeellan, 55.090511, -7.232631	Sand shore LS2	Herring gull	1	Sand shore LS2	Roosting on shore.	JOS
01/09/2016	Lough Foyle, Aught, 55.103160, -7.214660	Shingle shore LS1	Herring Gull	7	Shingle shore LS1		JOS
01/09/2016	Lough Foyle, Aught, 55.106614, -7.212895	Estuary MW4	Herring Gull	1	Estuary MW4	Flies S, low over water, band 1,	JOS
01/09/2016	Lough Foyle, Three trees, 55.115854, -7.206962	Shingle shore LS1	Herring Gull	1	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	CC2	Herring Gull	5	CC2	On oyster trestle.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	Shingle shore LS1	Herring Gull	5	Shingle shore LS1	Roosting on shingle	JOS
01/09/2016	Ladys bay beach, Buncrana, 55.113528, -7.468302	Sand shore LS2	Herring Gull	4	Sand shore LS2	Roosting on sand shore.	JOS
20/09/2016	Lough Foyle	MW2	Herring Gull	90	MW2, (Sea inlets and bays)		HH, TR
30/11/2016	Lough Foyle		Herring Gull	22	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Herring Gull	2	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Herring Gull	10	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Herring Gull	21	MW2, (Sea inlets and bays)		TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
05/12/2016	Lough Foyle		Herring Gull	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Herring Gull	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Herring Gull	27	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Herring Gull	5	MW2, (Sea inlets and bays)		TR
10/12/2016	Lady's Bay Beach, Buncrana		Herring Gull	17	LS2, (Sand shores)		TR
10/12/2016	Lough Foyle		Herring Gull	7	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Herring Gull	10	MW2, (Sea inlets and bays)		TR
10/02/2017	Lough Foyle		Herring Gull	4	MW4, (Estuaries)		TR
10/02/2017	Lough Foyle		Herring Gull	1	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Herring Gull	3	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Herring Gull	1	MW4, (Estuaries)	Above Water	TR
10/02/2017	Lough Foyle		Herring Gull	2	MW4, (Estuaries)	Above Water	TR
13/02/2017	Lough Swilly	2009	Herring Gull	25	LS2, (Sand shores)	Above Water	TR
28/02/2017	Lady's Bay Buncrana		Herring Gull	15	LS2, (Sand shores)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	10	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	8	MW4, (Estuaries)	Above Water	TR

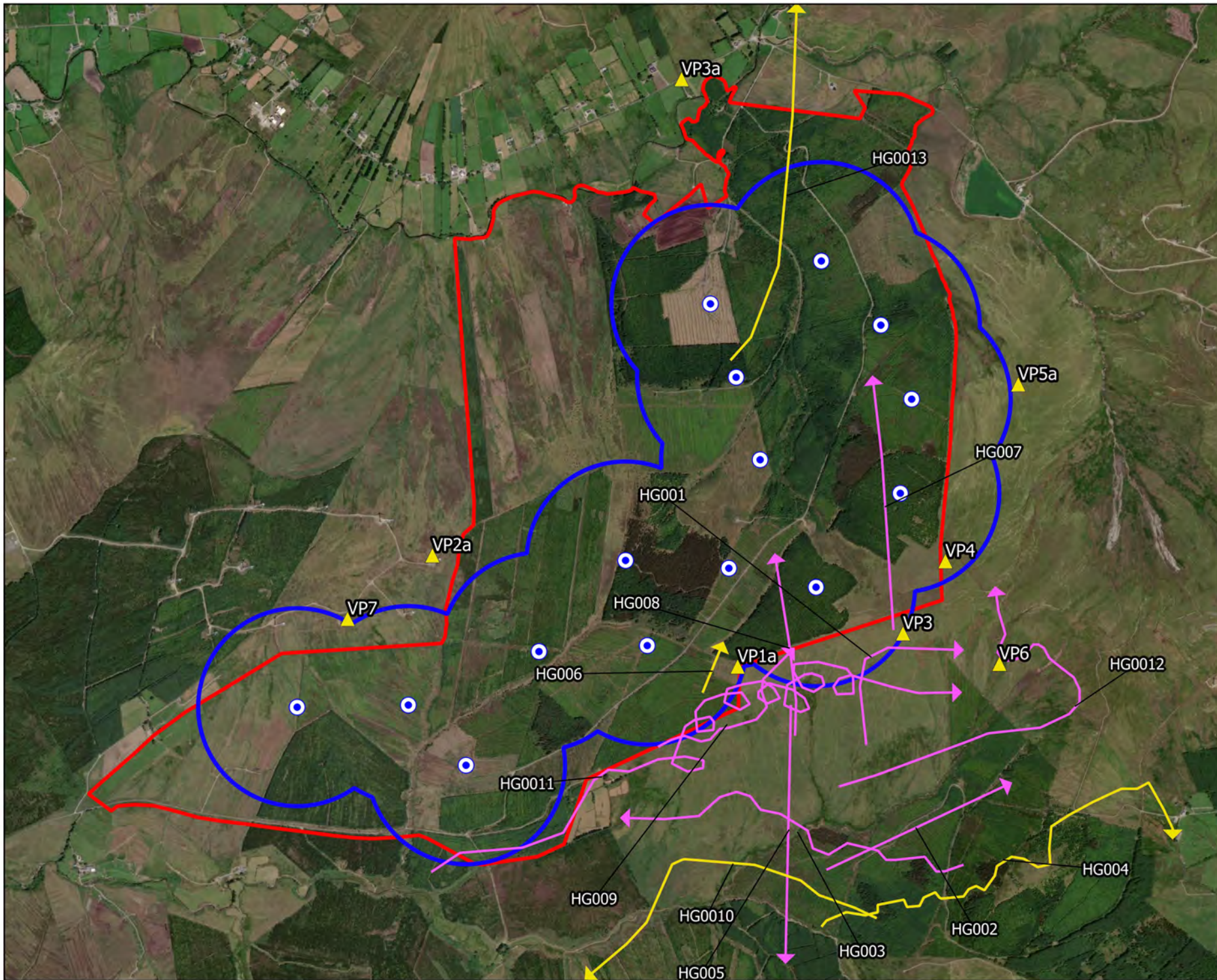
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/02/2017	Lough Foyle		Herring Gull	5	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Herring Gull	20	MW4, (Estuaries)	Above Water	TR
14/03/2017			Herring Gull	5	LS2, (Sand shores)	Above Water	TR
14/03/2017			Herring Gull	12	MW4, (Estuaries)	Above Water	TR
14/03/2017			Herring Gull	6	MW4, (Estuaries)	Above Water	TR
28/03/2017			Herring Gull	13	LS2, (Sand shores)	Above Water	TR
28/03/2017			Herring Gull	35		Terrestrial	TR
28/03/2017			Herring Gull	4		Above Water	TR
28/03/2017			Herring Gull	3		Above Water	TR
28/03/2017			Herring Gull	1	Terrestrial	Terrestrial	TR
28/03/2017			Herring Gull	3		On Water	TR
28/03/2017			Herring Gull	3		Above Water	TR
28/08/2017	Culmore Point		Herring Gull	15	MW2, (Sea inlets and bays)	Above Water	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/08/2017	Culmore Landfill Site		Herring Gull	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Rinenore Point		Herring Gull	11	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Buncrana beach		Herring Gull	5	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Banket Nook		Herring Gull	22	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Blanket Nook		Herring Gull	3	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Culmore Point		Herring Gull	2	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Ture Point		Herring Gull	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Rinenore Point		Herring Gull	3	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Blanket Nook		Herring Gull	6	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Inch Levels South Hide		Herring Gull	2	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Culmore Point		Herring Gull	2	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Sandpoint		Herring Gull	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Ture Point		Herring Gull	9	MW2, (Sea inlets and bays)	Flying	AOD
28/09/2017	Vances Point		Herring Gull	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Culmore Point		Herring Gull	5	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Culmore country park		Herring Gull	7	MW2, (Sea inlets and bays)	Terrestrial	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/02/2018	Ture point		Herring Gull	3	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Carrowkeel		Herring Gull	7	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Whitecastle		Herring Gull	3	MW2, (Sea inlets and bays)	On Water	AOD
01/02/2018	Buncrana Pier		Herring Gull	3	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Crana estuary		Herring Gull	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	White strand Buncrana		Herring Gull	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	Buncrana Pier		Herring Gull	3	MW2, (Sea inlets and bays)	On Water	AOD
19/02/2018	Crana estuary		Herring Gull	17	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Whitecastle		Herring Gull	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Creehennan		Herring Gull	7	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Quigleys point		Herring Gull	8	MW2, (Sea inlets and bays)	Feeding	AOD
20/02/2018	Carrowkeel		Herring Gull	4	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Ture point		Herring Gull	4	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Culmore Point		Herring Gull	20	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/04/2018	Crana River Lough Swilly		Herring Gull	53	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	Above Water	ND

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
21/04/2018	Lough foyle		Herring Gull	20	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND
28/04/2018	Crana River Lough Swilly		Herring Gull	40	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	Above Water	ND
29/04/2018	Lough foyle		Herring Gull	9	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND
09/05/2018	Crana River Lough Swilly		Herring Gull	23	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND
09/05/2018	Foyle Estuary		Herring Gull	42	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND
26/05/2018	Crana River Lough Swilly		Herring Gull	19	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND
26/05/2018	Foyle Estuary		Herring Gull	44	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	On Water	ND

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
05/06/2018	Breeding Raptor Survey	Herring Gull	4		AOD



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Herring Gull Observations Vantage Point Surveys	
Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.12
Scale 1:25000	Date 10/11/2021
MKO Planning and Environmental Consultants <small> Tuam Road, Galway Ireland, H91 VV84 +353 (0) 91 735611 email: info@mkofireland.ie Website: www.mkofireland.ie </small>	

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Table 15 Mallard Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
Not mapped	05/11/2016	VP1a	Mallard	2	15:16:00					PB2, (Upland blanket bog) Flying north towards reservoir	Flying north	AR
Not mapped	08/01/2017	VP1a	Mallard	6	17:10:00					WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Flying over southern boundary	AR
Not Mapped	29/03/2017	VP4	Mallard	2	18:05:00					Flying north over Glenard towards dam	Flying north over Glenard towards dam	AR
Not Mapped	19/04/2017	VP5a	Mallard	2	14:11:00	20	20	0	0	PB4, (Cutover bog) FW1, (Eroding/upland rivers) flying	Flying towards river. Outside site boundary, inside 500m envelope	ND
Not Mapped	21/10/2017	VP5a	Mallard	2	08:32:00					Travelling towards dam	Travelling towards dam	AR
Not Mapped	06/01/2018	VP2a	Mallard	3	12:41:00					flight NE	In flight. NE	AR
Not Mapped	28/02/2018	VP5a	Mallard	6	15:01:00					WD4, Flight north	In flight north	AR

Vantage Point Non-Flight Observations						
Date	VP	Species	No. of Birds	Time	Comments	Surveyor
20/11/2016	VP4	Mallard	2	14:33:00		AR
13/12/2016	VP4	Mallard	3	09:21:00		AR
26/11/2017	VP6	Mallard	2	15:21:00	Foraging	AR

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
MA001	20/06/2018	11:50:00	Mallard	2	Flew from reservoir direction to site and Cran River		AOD

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
No flight available	18/03/2017	10:01:00	Mallard	2	Male and female	PB2, (Upland blanket bog) In flight/calling	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Coney road, 55.066184, - 7.253895	Mud Shore LS4	Mallard	55	Mud Shore LS4	Feeding/roosting on mud shore	JOS
01/09/2016	Lough Foyle, Coney road, 55.066184, - 7.253895	Estuary MW4	Mallard	3	Estuary MW4	On water.	JOS
20/09/2016	Lough Foyle	MW2	Mallard	45	MW2, (Sea inlets and bays)		HH, TR
31/10/2016	Eddie Fullerton Dam		Mallard	8	FL7	Feeding along lake edge	AR
31/10/2016	Carrowmore		Mallard	3	FL6	Feeding at waters edge	AR
31/10/2016	Quigleys Point		Mallard	6	GA1	Feeding in field along shore edge	AR
30/11/2016	Lough Foyle		Mallard	2	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Mallard	8	MW2, (Sea inlets and bays)		TR
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	LS2	Mallard	4	LS2, (Sand shores)	feeding	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	FL7	Mallard	4	FL7, (Reservoirs)	feeding	AR
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	FL6	Mallard	1	FL6, (Turloughs)	foraging through water edge veg	AR
01/12/2016	Lough Turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	GA1	Mallard	3	GA1, (Improved agricultural grassland)	feeding	AR
05/12/2016	Lough Foyle		Mallard	46	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Mallard	10	MW2, (Sea inlets and bays)		TR
20/12/2016	Blanket Nook		Mallard	15	MW2, (Sea inlets and bays)		TR
20/12/2016	Lough Foyle		Mallard	20	MW2, (Sea inlets and bays)		TR
09/01/2017	Lough Foyle	3	Mallard	3	LS1, (Shingle and gravel shores)	Feeding	AR
09/01/2017	Eddie Fullerton Dam	5	Mallard	7	FL7, (Reservoirs)	Feeding along lake edge	AR
09/01/2017	Lisfannon	9	Mallard	3	LS2, (Sand shores)	Feeding	AR
27/01/2017	Inch Levels	13	Mallard	4	FL7, (Reservoirs)	Feeding in reservoir	AR
27/01/2017	Inch Levels	14	Mallard	2	FL6, (Turloughs)	Feeding in Turlough	AR
27/01/2017	Inch Levels	16	Mallard	3	GA1, (Improved agricultural grassland)	Feeding	AR
10/02/2017	Lough Foyle		Mallard	17	MW4, (Estuaries)	On Water	TR
10/02/2017	Lough Foyle		Mallard	2	MW4, (Estuaries)	On Water	TR
10/02/2017	Lough Swilly	2008	Mallard	20	MW4, (Estuaries)	On Water	TR
28/02/2017	Blanket Nook		Mallard	8	MW4, (Estuaries)	On Water	TR
28/02/2017	Lough Turk		Mallard	2	FL2, (Acid oligotrophic lakes)	Flying	TR
28/02/2017	Lough Foyle		Mallard	2	MW4, (Estuaries)	On Water	TR
14/03/2017			Mallard	2	MW4, (Estuaries)	Above Water	TR
14/03/2017			Mallard	4	MW4, (Estuaries)	On Water	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
14/03/2017			Mallard	18	MW4, (Estuaries)	On Water	TR
14/03/2017			Mallard	12	MW4, (Estuaries)	On Water	TR
28/03/2017			Mallard	11	MW4, (Estuaries)	On Water	TR
28/03/2017			Mallard	8	GA1, (Improved agricultural grassland)	Terrestrial	TR
08/04/2017	Illies		Mallard	2	FW1, (Eroding/upland rivers)	Flying to reservoir	AR
08/04/2017	Fullerton Dam		Mallard	2	FL7, (Reservoirs)	Feeding	AR
20/04/2017	Fullerton Dam		Mallard	4	FL7, (Reservoirs)	1 pair nesting. Feeding	AR
05/05/2017	Eddie Fullerton Dam		Mallard	2	FL7, (Reservoirs)	Moving across reservoir	AR
21/05/2017	Eddie Fullerton Dam		Mallard	11	FL7, (Reservoirs)	Adults with 9 young	AR
21/05/2017	Eddie Fullerton Dam		Mallard	9	FL7, (Reservoirs)	Adults with 7 young	AR
21/05/2017	Lough Foyle		Mallard	2	LS3, (Muddy sand shores)	Feeding along shore edge	AR
29/08/2017	Inch levels Hide		Mallard	17	MW2, (Sea inlets and bays)	On Water	AOD
29/08/2017	Banket Nook		Mallard	46	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Blanket Nook		Mallard	56	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Inch Levels South Hide		Mallard	110	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Culmore Point		Mallard	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Blanket Nook		Mallard	65	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Inch Levels South Hide		Mallard	58	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Landfill		Mallard	12	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Sandpoint		Mallard	4	MW2, (Sea inlets and bays)	On Water	AOD
07/10/2017		EFD1	Mallard	3	FL7, (Reservoirs)	Feeding	AR
07/10/2017		EFD3	Mallard	2	FL7, (Reservoirs)	Feeding at lake edge	AR
22/10/2017		ED2	Mallard	5	FL7, (Reservoirs)	Feeding at lake edge	AR
04/11/2017		LF1	Mallard	2	LS4, (Mud shores)	Feeding	AR
04/11/2017		ED1	Mallard	3	FL7, (Reservoirs)	Feeding along reservoir edge	AR

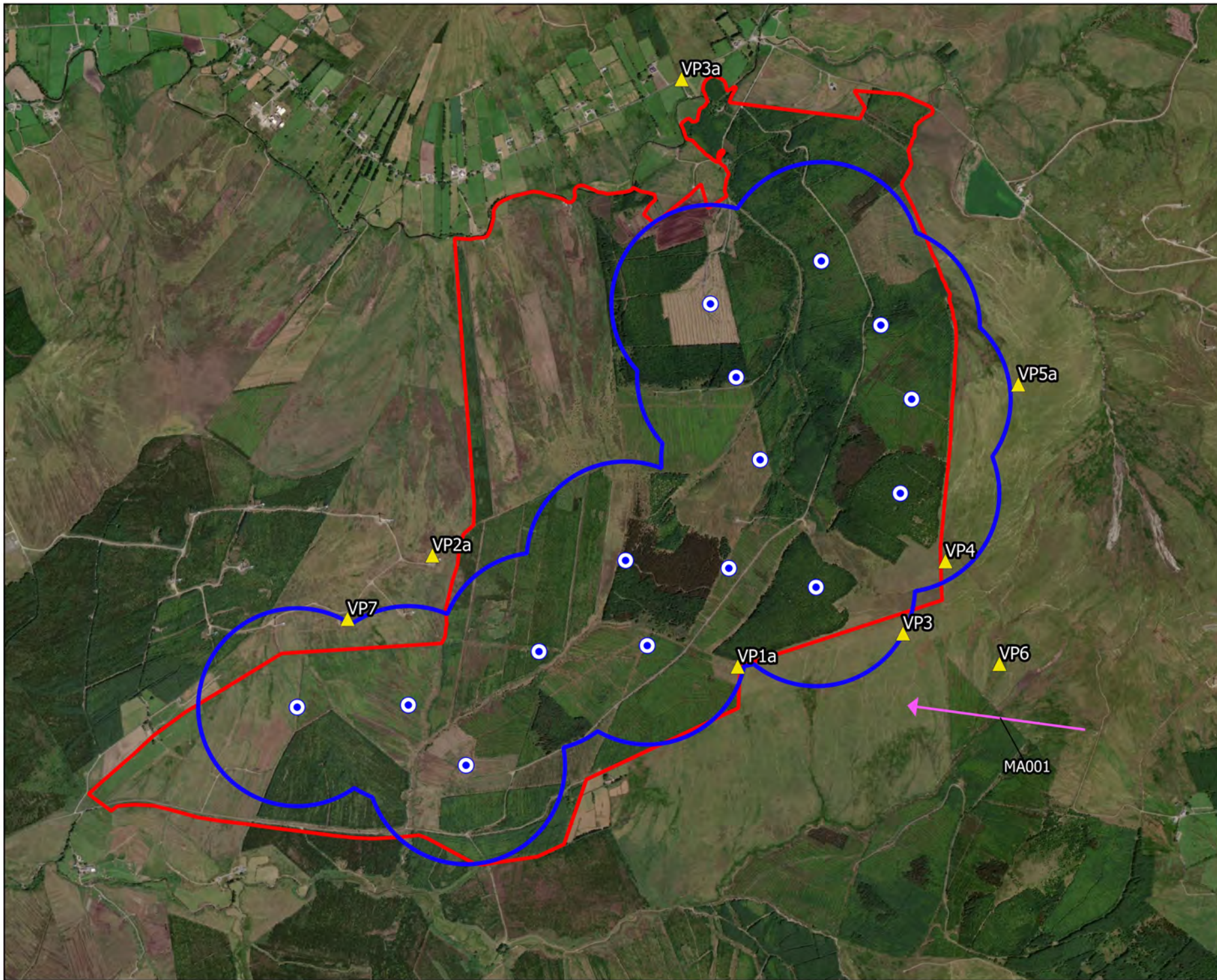
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
19/11/2017		ED1	Mallard	4	FL7, (Reservoirs)	Foraging in lake	AR
02/12/2017		ED2	Mallard	4	FL7, (Reservoirs)	In reservoir	AR
22/12/2017		EF1	Mallard	5	FL7, (Reservoirs)	On Eddie Fullerton Dam	AR
02/01/2018	Eddie Fullerton Dam	ED1	Mallard	3	FL7, (Reservoirs)	In reservoir	AR
01/02/2018	Lake Turk		Mallard	2	FL7, (Reservoirs)	On Water	AOD
19/02/2018	Inch		Mallard	32	MW2, (Sea inlets and bays)	On Water	AOD
19/02/2018	Lake Turk		Mallard	6	FL7, (Reservoirs)	On Water	AOD
20/02/2018	Culmore country park		Mallard	16	MW2, (Sea inlets and bays)	On Water	AOD
04/03/2018	Eddie Fullerton Dam	ED2	Mallard	3	FL7, (Reservoirs)	In reservoir	AR
24/03/2018	Eddie Fullerton Dam	ED2	Mallard	6	FL7, (Reservoirs)	In reservoir	AR
14/04/2018	Lough Inn		Mallard	1	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	ND
14/04/2018	Lough Turk / Fullerton Dam		Mallard	5	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	ND
15/04/2018	Inch Lough / Levels		Mallard	48	CW1, (Lagoons and saline lakes)	CW1, (Lagoons and saline lakes)	ND
21/04/2018	Lough Foyle		Mallard	4	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/04/2018	Inch Lough / Levels		Mallard	64	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
28/04/2018	Lough Inn		Mallard	1	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	FL2, (Acid oligotrophic lakes) PB2, (Upland blanket bog) WD4, (Conifer plantation)	ND
28/04/2018	Lough Turk / Fullerton Dam		Mallard	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	ND
06/05/2018	Inch Lough / Levels		Mallard	65	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
09/05/2018	Foyle Estuary		Mallard	2	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
26/05/2018	Foyle Estuary		Mallard	9	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/05/2018	Lough Turk / Fullerton Dam		Mallard	5	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	ND
31/05/2018	Inch Lough / Levels		Mallard	120	CW1, (Lagoons and saline lakes)	On Water	ND
04/12/2018	Reservoir		Mallard	4	2 male 2 female	On Water	AOD
18/12/2018	Reservoir		Mallard	3	3 adults	On Water	AOD
04/01/2019	Reservoir (Lough Turk)		Mallard	4	Feeding on water north side	On Water	AOD
21/01/2019	Reservoir (Lough Turk)		Mallard	4	Feeding on water north side	On Water	AOD
06/02/2019	Lough Turk (Reservoir)		Mallard	9	FL7, (Reservoirs) On water north side 6m 3f	On Water	AOD
22/02/2019	Lough Turk (Reservoir)		Mallard	5	FL7, (Reservoirs) On water north side 2M 3F	On Water	AOD
06/03/2019	Reservoir		Mallard	6	FL7, (Reservoirs) 3male 3 female feeding north side	On Water	AOD
06/03/2019	Crana river		Mallard	4	FL, (Lakes and ponds) 3male 1female feeding in flood pool beside Crana River	On Water	AOD
21/03/2019	Owenkillew river		Mallard	1	FW1, (Eroding/upland rivers) Flushed from river flew west	Above Water	AOD

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
01/05/2019	Breeding Raptor Survey	Mallard	1	Male flew over site	JB
12/04/2018	Breeding Raptor Survey	Mallard	1	PB2, (Upland blanket bog) flushed from drain	AOD
12/04/2018	Breeding Raptor Survey	Mallard	2	WD4, (Conifer plantation) PB2, (Upland blanket bog) flew from river on-site band 2	AOD
01/06/2018	Breeding Raptor Survey	Mallard	3	FL1, (Dystrophic lakes) 2 male and 1 female swimming on NE side of reservoir	AOD



Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
10/07/2018	Breeding Raptor Survey	Mallard	7	FL2, (Acid oligotrophic lakes) 7 Adults and juv. feeding on reservoir	AOD
13/02/2019	HHVP1	Mallard	3	Pair flew east to west over Owenkillew river away from site. 1M 2F	AOD



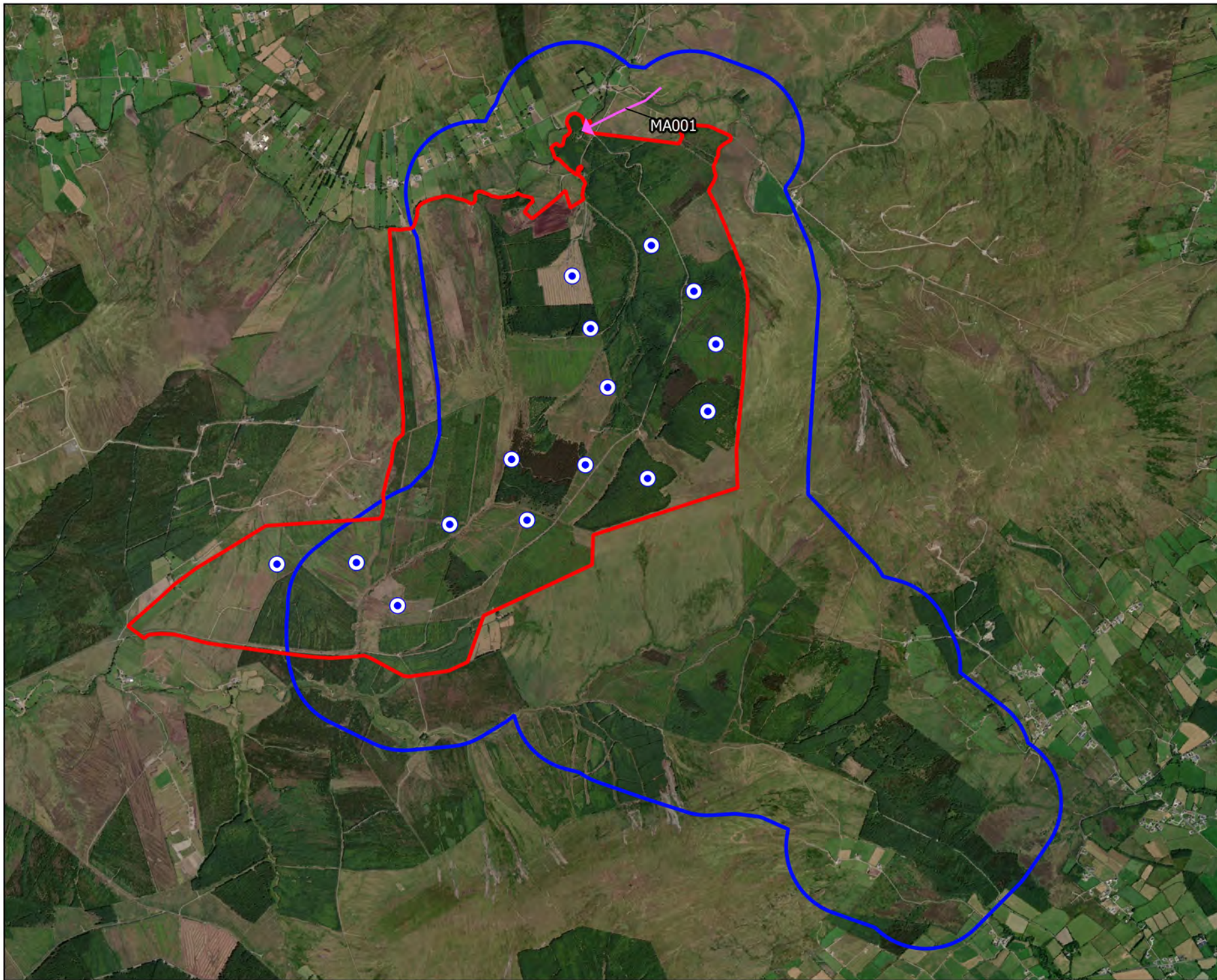
Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- ➔ PCH Flight



Drawing Title	
Mallard Observations Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.13
Scale	Date
1:25000	10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title Mallard Observations Breeding Walkover Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.3.5
Scale 1:35000	Date 10/11/2021
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Table 16 Redshank Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
RK001	06/10/2018	VP5	Redshank	21	17:21:00	110	110	0	0	PB2, (Upland blanket bog) GS4, (Wet grassland) In flight	Flock flying over hill eastward calling occasionally. Turned and flew south over hill out of sight.	AR

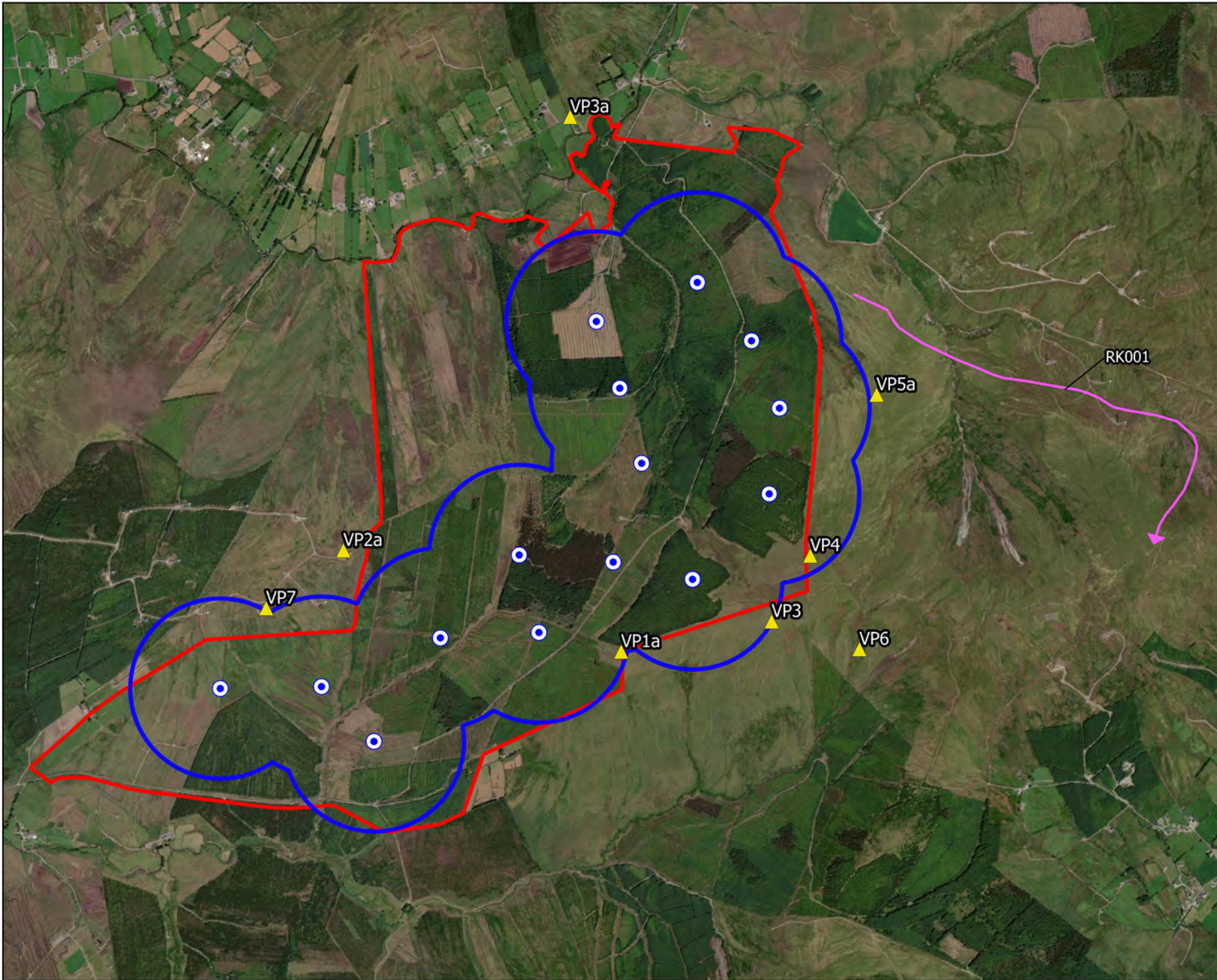
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Mud Shore LS4	Redshank	1	Mud Shore LS4	Roosting	JOS
16/08/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1	Redshank	3	Shingle shore LS1	Roosting	JOS
16/08/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Redshank	10	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Redshank	47	Mud Shore LS4	Feeding/roosting on mud shore	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Estuary MW4	Redshank	1	Estuary MW4	Flies N, calling.	JOS
01/09/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1	Redshank	2	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	Estuary MW4	Redshank	3	Estuary MW4	Fly south. Band 1. 30 secs.	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Redshank	4	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, Three trees, 55.115854, -7.206962	Shingle shore LS1	Redshank	11	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, Aught, 55.106614, -7.212895	Sand shore LS2	Redshank	12	Sand shore LS2	Roosting on sand shore, N of VP	JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Estuary MW4	Redshank	50	Estuary MW4	Approx. 50 RK. Fly N, Band 2, 50 secs.	JOS
20/09/2016	Lough Foyle	MW2	Redshank	3	MW2, (Sea inlets and bays)		HH, TR
30/11/2016	Lough Foyle		Redshank	3	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Redshank	3	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Redshank	8	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Redshank	9	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Redshank	2	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Redshank	5	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Redshank	7	MW2, (Sea inlets and bays)	Perched then flushed by surveyor	TR
05/12/2016	Lough Foyle		Redshank	7	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Redshank	8	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Redshank	52	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Redshank	2	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Redshank	9	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Redshank	33	MW2, (Sea inlets and bays)		TR
20/12/2016	Lough Foyle		Redshank	1	MW2, (Sea inlets and bays)		TR
20/12/2016	Lough Foyle		Redshank	7	MW2, (Sea inlets and bays)		TR
10/02/2017	Lough Foyle		Redshank	4	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Redshank	4	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Redshank	4	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Redshank	4	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Redshank	18	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Redshank	36	MW4, (Estuaries)	Wading	TR
28/02/2017	Lough Foyle		Redshank	1	MW4, (Estuaries)	Above Water	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
28/02/2017	Lough Foyle		Redshank	1	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Redshank	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Redshank	3	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Redshank	15	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Redshank	57	MW4, (Estuaries)	Above Water	TR
14/03/2017			Redshank	3	MW4, (Estuaries)	Terrestrial	TR
14/03/2017			Redshank	3	MW4, (Estuaries)	Terrestrial	TR
14/03/2017			Redshank	4	MW4, (Estuaries)	Above Water	TR
14/03/2017			Redshank	6	MW4, (Estuaries)	Terrestrial	TR
14/03/2017	Foyle (Ardmore Lower)		Redshank	140	MW4, (Estuaries)	Terrestrial	TR
28/03/2017			Redshank	3	Terrestrial	Terrestrial	TR
28/03/2017			Redshank	4	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017			Redshank	6	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017			Redshank	10	Terrestrial	Terrestrial	TR
28/03/2017	Lough Foyle		Redshank	72		Feeding/Roosting	TR
28/03/2017	Foyle (Ardmore Lower)		Redshank	115		Feeding/Roosting	TR
28/08/2017	Creehenannan		Redshank	7	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Culmore Point		Redshank	11	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Ture Point		Redshank	11	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	South of Carrowkeel		Redshank	21	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Culmore Landfill Site		Redshank	102	MW2, (Sea inlets and bays)	Above Water	AOD
29/08/2017	Banket Nook		Redshank	7	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Rinenore Point		Redshank	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Whitecastle		Redshank	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Ture Point		Redshank	4	MW2, (Sea inlets and bays)	Terrestrial	AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/09/2017	Inch Levels South Hide		Redshank	12	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Vances Point		Redshank	15	MW2, (Sea inlets and bays)		AOD
16/09/2017	Blanket Nook		Redshank	28	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Culmore Point		Redshank	28	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Sandpoint		Redshank	32	MW2, (Sea inlets and bays)	Flying	AOD
16/09/2017	Culmore Landfill		Redshank	62	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Rinenore Point		Redshank	4	MW2, (Sea inlets and bays)	Above Water	AOD
28/09/2017	Culmore Landfill		Redshank	103	MW2, (Sea inlets and bays)	Above Water	AOD
28/09/2017	Blanket Nook		Redshank	208	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Culmore Point		Redshank	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Ture point		Redshank	8	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Sand Point		Redshank	25	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Culmore country park		Redshank	32	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
19/02/2018	Inch		Redshank	61	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Carrowkeel		Redshank	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Vances point		Redshank	6	MW2, (Sea inlets and bays)	Above Water	AOD
20/02/2018	Rinemore point		Redshank	8	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Sand Point		Redshank	22	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Culmore country park		Redshank	86	MW2, (Sea inlets and bays)	Terrestrial	AOD
21/04/2018	Lough Foyle		Redshank	96	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
26/04/2018	Inch Lough / Levels		Redshank	10	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
29/04/2018	Lough Foyle		Redshank	27	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
09/05/2018	Foyle Estuary		Redshank	4	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	ND
09/01/2017			Redshank				AR
27/01/2017			Redshank				AR
05/05/2017			Redshank				AR
07/10/2017			Redshank				AR
22/10/2017			Redshank				AR
04/11/2017			Redshank			Foraging	AR
02/12/2017			Redshank				AR
22/12/2017			Redshank				AR
02/01/2018			Redshank				AR
21/01/2018			Redshank				AR
04/03/2018			Redshank				AR
24/03/2018			Redshank				AR



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight



Drawing Title

**Redshank Observations
Vantage Point Surveys**

Project Title

Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.114
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Scale 1:27500	Date 10/11/2021
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Table 17 Wigeon Survey Data

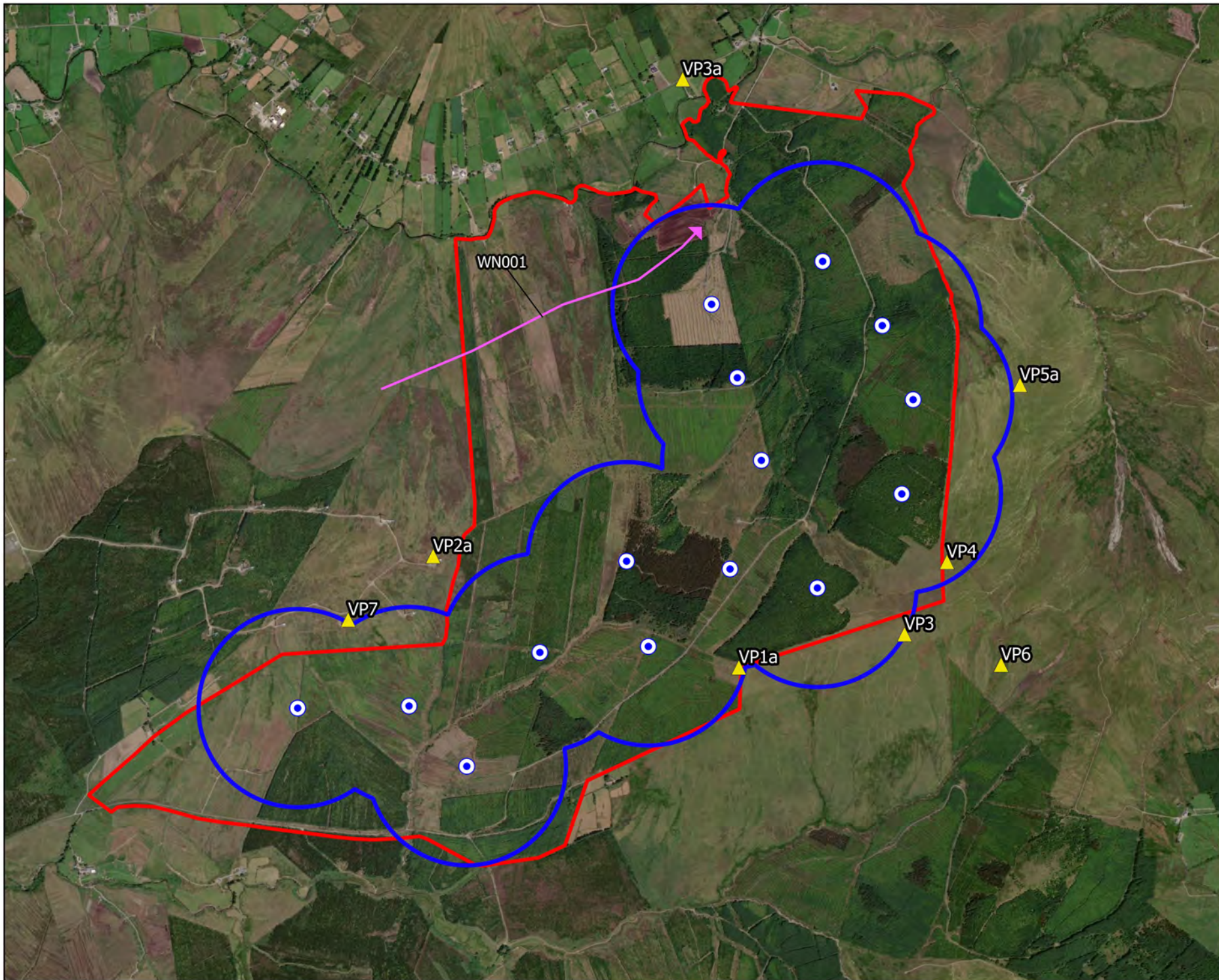
Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
WN001	18/12/2017	VP2a	Wigeon	6	11:35:00	50	0	50	0	HH3, (Wet heath) WD4, (Conifer plantation) In flight	In flight NE towards reservoir	AR

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
WN001	18/12/2016	13:25:00	Wigeon	6		HH3, (Wet heath) WD4, (Conifer plantation) Travelling over site	AR
WN002	02/03/2018	15:05:00	Wigeon	15		WD4, Flying towards reservoir	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
20/09/2016	Lough Foyle	MW2	Wigeon	11	MW2, (Sea inlets and bays)		HH, TR
05/10/2016	Lough Foyle	MW2	Wigeon	11	MW2, (Sea inlets and bays)		TR
31/10/2016	Eddie Fullerton Dam		Wigeon	11	FL7	Feeding. Flew to the opposite end of the lake.	AR
01/12/2016	Lough turk, Carrowmore Turlough, Grassland Fields, Lissfannon Shore and Lough Foyle	FL7	Wigeon	7	FL7, (Reservoirs)	feeding at reservoir edge	AR
10/12/2016	Lough Foyle		Wigeon	86	MW2, (Sea inlets and bays)		TR
20/12/2016	Blanket Nook		Wigeon	5	MW2, (Sea inlets and bays)		TR
20/12/2016	Lough Foyle		Wigeon	28	MW2, (Sea inlets and bays)		TR
09/01/2017	Eddie Fullerton Dam	7	Wigeon	5	FL7, (Reservoirs)	Feeding	AR
09/01/2017	Eddie Fullerton Dam	4	Wigeon	11	FL7, (Reservoirs)	Feeding/calling	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
10/02/2017	Lough Foyle		Wigeon	17	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Swilly	2008	Wigeon	8	MW4, (Estuaries)	On Water	TR
28/02/2017	Blanket Nook		Wigeon	45	MW4, (Estuaries)	Above Water	TR
28/02/2017	Blanket Nook		Wigeon	130	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	Lough Foyle		Wigeon	42	MW4, (Estuaries)	Above Water	TR
14/03/2017			Wigeon	75	MW4, (Estuaries)	On Water	TR
14/03/2017			Wigeon	187	MW4, (Estuaries)	On Water	TR
28/03/2017			Wigeon	2		On Water	TR
28/03/2017			Wigeon	16		On Water	TR
28/03/2017			Wigeon	65	MW4, (Estuaries)	On Water	TR
08/04/2017	Fullerton Dam		Wigeon	3	FL7, (Reservoirs)	Feeding along dam	AR
20/04/2017	Fullerton Dam		Wigeon	2	FL7, (Reservoirs)	Moving across reservoir	AR
29/08/2017	Inch levels Hide		Wigeon	23	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Blanket Nook		Wigeon	15	MW2, (Sea inlets and bays)	On Water	AOD
16/09/2017	Inch Levels South Hide		Wigeon	41	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Blanket Nook		Wigeon	22	MW2, (Sea inlets and bays)	Above Water	AOD
28/09/2017	Culmore Landfill		Wigeon	8	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Inch Levels South Hide		Wigeon	186	MW2, (Sea inlets and bays)	On Water	AOD
28/09/2017	Sandpoint		Wigeon	4	MW2, (Sea inlets and bays)	On Water	AOD
22/10/2017		ED1	Wigeon	4	FL7, (Reservoirs)	Feeding at lake edge	AR
04/11/2017		ED2	Wigeon	11	FL7, (Reservoirs)	Feeding along lake	AR
19/11/2017		ED2	Wigeon	9	FL7, (Reservoirs)	Foraging in lake	AR
22/12/2017		EF2	Wigeon	14	FL7, (Reservoirs)	On Eddie Fullerton Dam	AR
21/01/2018	Eddie Fullerton Dam	EFD1	Wigeon	16	FL7, (Reservoirs)	Foraging	AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
21/01/2018	Lough Foyle	LF2	Wigeon	30	FL7, (Reservoirs)	Feeding in Lough	AR
01/02/2018	Inch		Wigeon	90	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Sand Point		Wigeon	360	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
19/02/2018	Inch		Wigeon	6	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Culmore country park		Wigeon	13	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Sand Point		Wigeon	130	MW2, (Sea inlets and bays)	On Water	AOD
26/04/2018	Inch Lough / Levels		Wigeon	26	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
06/05/2018	Inch Lough / Levels		Wigeon	10	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	CW1, (Lagoons and saline lakes) FS2, (Tall-herb swamps) GS4, (Wet grassland)	ND
31/05/2018	Inch Lough / Levels		Wigeon	18	CW1, (Lagoons and saline lakes)	On Water	ND



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- ➔ PCH Flight



Drawing Title

Wigeon Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.15

Scale

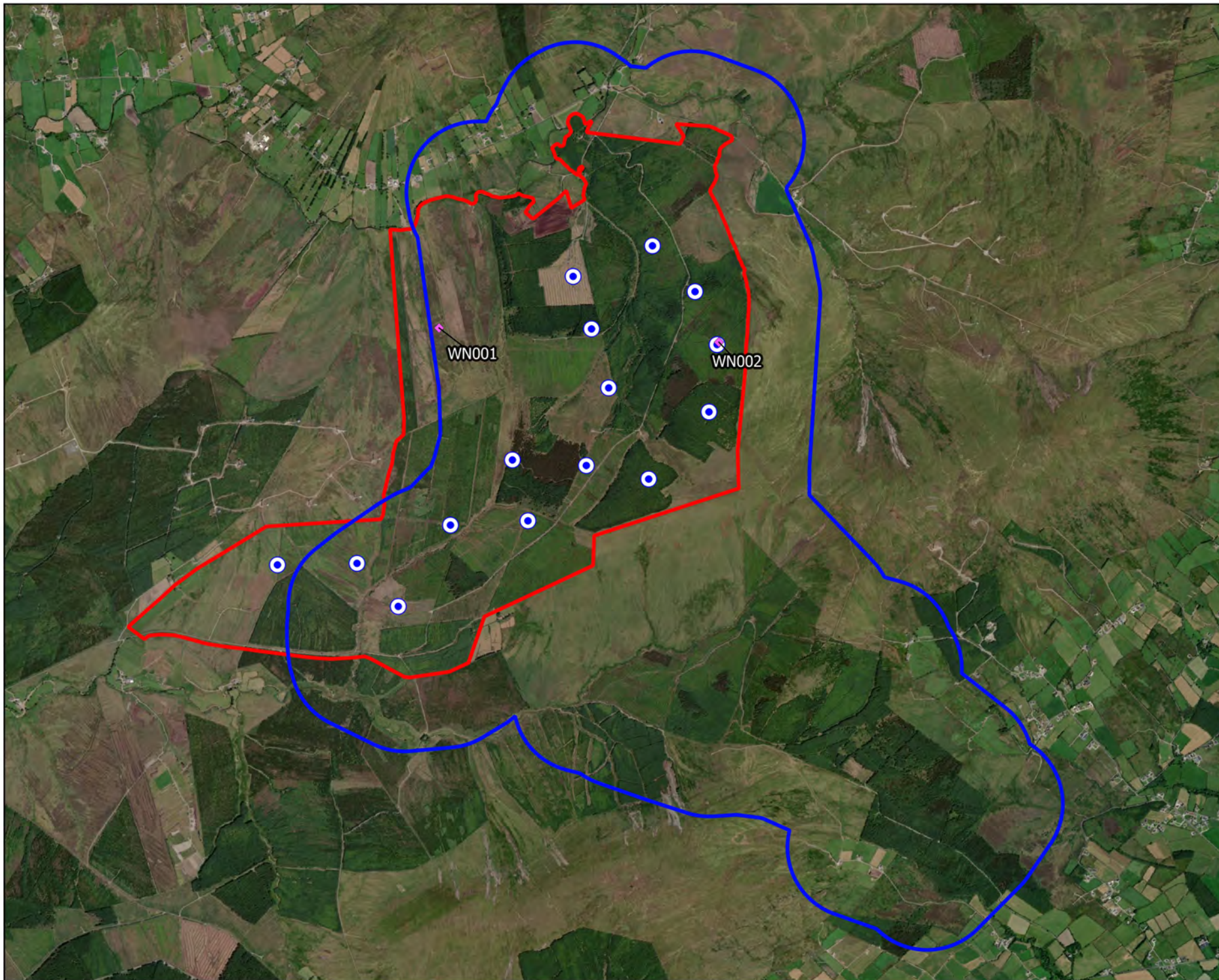
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Date

10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observations



Drawing Title

Wigeon Observations
Winter Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.5.5

Scale

1:35000

Date

10/11/2021



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Table 18 Curlew Survey Data

Vantage Point Surveys												
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
CU001	08/10/2016	VP1a	Curlew	5	11:42:00	63	0	63	0	PB2, (Upland blanket bog) HH3, (Wet heath) Emerged over the hill S of VP. Flew straight line over SE corner of site.		AR
CU002	04/12/2016	VP1a	Curlew	9	09:21:00	61	0	61	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) WS5, (Recently felled woodland) In flight over south corner of site	9 in flight over south west corner of site within PCH	AR
CU003	17/12/2016	VP6	Curlew	12	12:08:00	81	0	81	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) In flight SW	Observed flying SW over site within PCH	AR

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
CU004	VP7	25/07/2021	08:05	Curlew	1	180	0	0	180	0	bogs; bird traveling high	MM

Vantage Point Non-Flight Observations												
Date	VP	Species	No. of Birds	Time	Comments							Surveyor
19/04/2017	VP5a	Curlew	1		Curlew called briefly, twice, 10 mins apart. Not seen. Heard only. Thought to be on ground.							ND

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
CU001	06/05/2017	11:41	Curlew	1	PB2, (Upland blanket bog) In flight	Suitable nesting habitat; Possible breeder	AR
CU002	25/06/2018	12:01:00	Curlew	1	Lone bird flying from L. Foyle direction across the site		AOD

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Mud Shore LS4	Curlew	1	Mud Shore LS4	Calling	JOS
16/08/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Mud Shore LS4	Curlew	1	Mud Shore LS4	Calling, no visual.	JOS
16/08/2016	Lough Foyle, Opposite greenbank cottages, 55.120043, -7.202550	Mud Shore LS4	Curlew	1	Mud Shore LS4	On rocks.	JOS
16/08/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Curlew	2	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Curlew	2	Shingle shore LS1	Roosting	JOS
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Mud Shore LS4	Curlew	4	Mud Shore LS4	Roosting/feeding	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Curlew	5	Mud Shore LS4	Five individuals fly in from west and land on the shore. Flight band 1.	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Curlew	12	Mud Shore LS4	Feeding along shoreline	JOS
16/08/2016	Lough Foyle, Aught, 55.105663, -7.213010	Sand shore LS2	Curlew	18	Sand shore LS2	Roosting on sand shoreline	JOS
16/08/2016	Lough Foyle, Quigleys Point, 55.125022, -7.189295	Shingle shore LS1	Curlew	19	Shingle shore LS1		JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Estuary MW4	Curlew	39	Estuary MW4	Flight band 1. Flew south along the shore calling.	JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/08/2016	Lough Foyle, Coney road, 55.066184, -7.253895	Mud Shore LS4	Curlew	45	Mud Shore LS4	Feeding/roosting on mud shore	JOS
16/08/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1/ Mud Shore LS4	Curlew	52	Shingle shore LS1/ Mud Shore LS4	Roosting/feeding	JOS
16/08/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Mud Shore LS4	Curlew	143	Mud Shore LS4	Feeding/roosting on mud shore	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.080806, -7.245900	Estuary MW4	Curlew	1	Estuary MW4	Flies S, lands on shore, band 1.	JOS
01/09/2016	Lough Foyle, Aught, 55.102098, -7.217375	GA1, sand shore LS2	Curlew	1	GA1, sand shore LS2	Flies W into pasture, 10 secs, band 1, lands.	JOS
01/09/2016	Lough Foyle, Culmore point, 55.047009, -7.253809	Shingle shore LS1	Curlew	1	Shingle shore LS1	Foraging on shingle shore.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948		Curlew	1		Calling. No visual.	JOS
01/09/2016	Lough Foyle, N of Quigleys Point, 55.126528, -7.187948	Shingle shore LS1	Curlew	1	Shingle shore LS1	Roosting on shingle	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Curlew	1	Shingle shore LS1	On seaweed. Disturbed by surveyor, flies S, band 1, 40 secs.	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Estuary MW4	Curlew	1	Estuary MW4	Fly south, band 1.	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Estuary MW4	Curlew	1	Estuary MW4	Flies S, circles back N, band 1, 60 secs.	JOS
01/09/2016	Lough Foyle, Three trees, 55.113394, -7.208258	Shingle shore LS1	Curlew	1	Shingle shore LS1	With L., GK, RK, roosting on seaweed/shingle.	JOS
01/09/2016	Lough Foyle, Three trees, 55.115854, -7.206962	Shingle shore LS1	Curlew	1	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, Ture, 55.093156, -7.228038	Shingle shore LS1	Curlew	1	Shingle shore LS1	Roosting on shingle.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Estuary MW4	Curlew	2	Estuary MW4	Fly N, calling, band 1.	JOS

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/09/2016	Lough Foyle, Drumskeellan, 55.090511, -7.232631	Sand Shore LS2	Curlew	4	Sand Shore LS2	Roosting on shore.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.079479, -7.247071	Agricultural grassland, GA1	Curlew	15	Agricultural grassland, GA1	Roosting in GA1. Disturbed by surveyor, lift, fly east, then circle N, fly out of view.	JOS
01/09/2016	Lough Foyle, Aught, 55.103160, -7.214660	Shingle shore LS1	Curlew	19	Shingle shore LS1	Roosting on shingle, south of pier.	JOS
01/09/2016	Lough Foyle, Ardmore lower, 55.068217, -7.255450	Shingle shore LS1	Curlew	50	Shingle shore LS1	Roosting with BH on shingle shore, in front of reedbed.	JOS
20/09/2016	Lough Foyle	MW2	Curlew	92	MW2, (Sea inlets and bays)		HH, TR
05/10/2016	Lough Foyle	MW2	Curlew	92	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Curlew	3	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Curlew	3	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Curlew	3	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Curlew	5	MW2, (Sea inlets and bays)		TR
30/11/2016	Lough Foyle		Curlew	5	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	1	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	18	MW2, (Sea inlets and bays)		TR
05/12/2016	Lough Foyle		Curlew	22	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Curlew	1	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Curlew	1	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)	Perched	TR
10/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)		TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
10/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Curlew	2	MW2, (Sea inlets and bays)		TR
10/12/2016	Lough Foyle		Curlew	8	MW2, (Sea inlets and bays)		TR
20/12/2016	Blanket Nook		Curlew	150	MW2, (Sea inlets and bays)		TR
10/02/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Curlew	3	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Curlew	4	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Curlew	10	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Curlew	12	MW4, (Estuaries)	Wading	TR
10/02/2017	Lough Foyle		Curlew	30	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Curlew	30	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Curlew	37	MW4, (Estuaries)	Terrestrial	TR
10/02/2017	Lough Foyle		Curlew	39	MW4, (Estuaries)	Flying	TR
10/02/2017	Lough Swilly	2008	Curlew	130	MW4, (Estuaries)	Wading	TR
28/02/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	3	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	3	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	3	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	3	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	6	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	34	MW4, (Estuaries)	Above Water	TR
28/02/2017	Lough Foyle		Curlew	55	GA1, (Improved agricultural grassland)	Terrestrial	TR
28/02/2017	Blanket Nook		Curlew	220	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Terrestrial	TR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
14/03/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Above Water	TR
14/03/2017	Lough Foyle		Curlew	2	MW4, (Estuaries)	Above Water	TR
14/03/2017	Lough Foyle		Curlew	8	GA1, (Improved agricultural grassland)	Terrestrial	TR
14/03/2017	Lough Foyle		Curlew	8	MW4, (Estuaries)	Above Water	TR
14/03/2017	Blanket Nook		Curlew	9	MW4, (Estuaries)	Wading	TR
28/03/2017	Lough Foyle		Curlew	1	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017	Lough Foyle		Curlew	1	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017	Blanket Nook		Curlew	2	MW4, (Estuaries)	Above Water	TR
28/03/2017	Lough Foyle		Curlew	2	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017	Lough Foyle		Curlew	8	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017	Lough Foyle		Curlew	18	Feeding/Roosting	Feeding/Roosting	TR
28/03/2017	Lough Foyle		Curlew	26	Feeding/Roosting	Feeding/Roosting	TR
28/08/2017	Creehenannan		Curlew	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Vances Point		Curlew	2	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Rinenore Point		Curlew	3	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Culmore Point		Curlew	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	South of Carrowkeel		Curlew	4	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Sand Point		Curlew	12	MW2, (Sea inlets and bays)	Above Water	AOD
28/08/2017	Culmore Landfill Site		Curlew	26	MW2, (Sea inlets and bays)	On Water	AOD
28/08/2017	Quigleys Point		Curlew	34	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/08/2017	Ture Point		Curlew	52	MW2, (Sea inlets and bays)	Above Water	AOD
29/08/2017	Banket Nook		Curlew	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
29/08/2017	Inch levels fields		Curlew	6	GA1, (Improved agricultural grassland)	Terrestrial	AOD
29/08/2017	Inch levels Hide		Curlew	10	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Quigleys Point		Curlew	1	MW2, (Sea inlets and bays)	Terrestrial	AOD

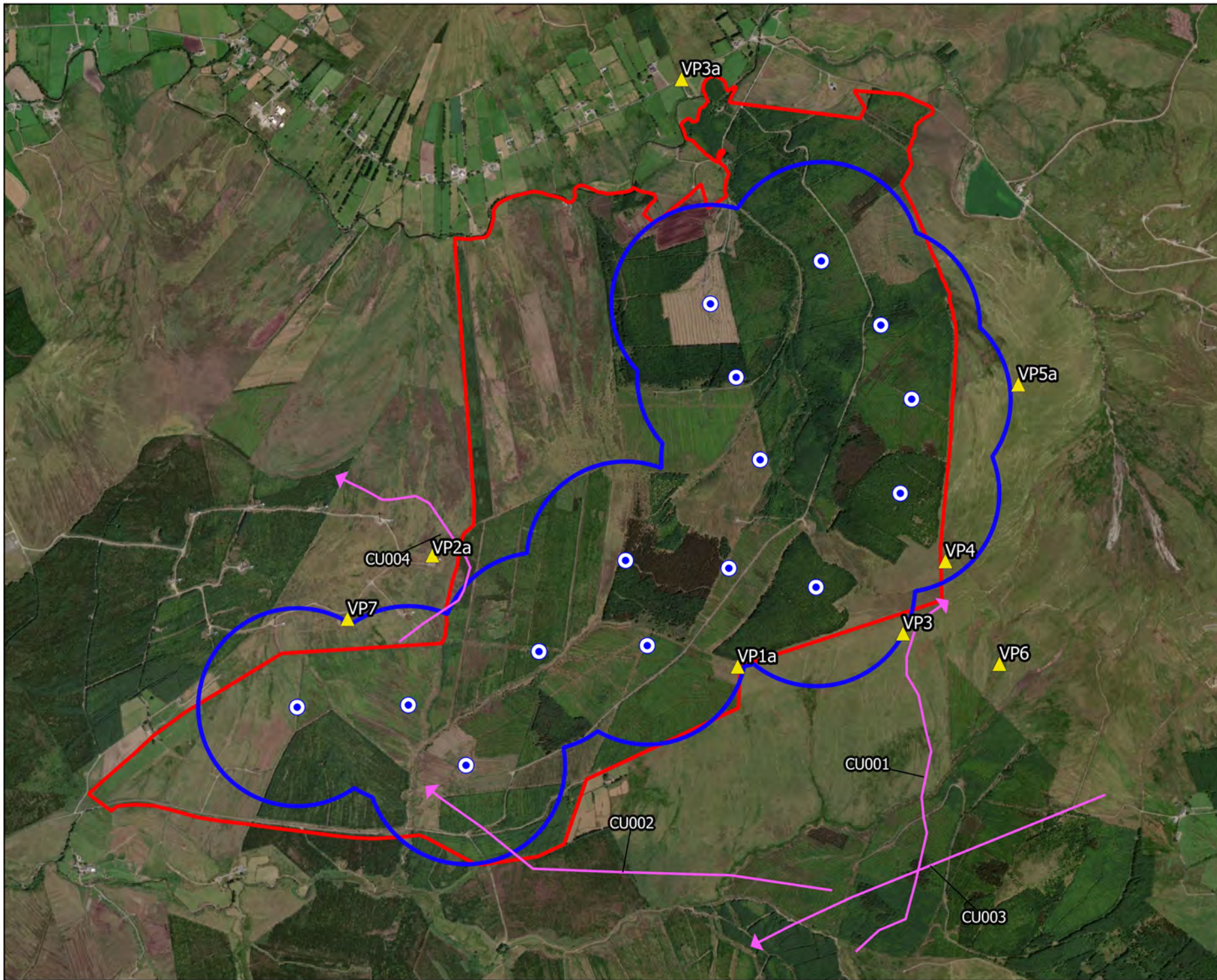
Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
16/09/2017	Sandpoint		Curlew	2	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Whitecastle		Curlew	5	MW2, (Sea inlets and bays)	Terrestrial	AOD
16/09/2017	Culmore Point		Curlew	12	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Blanket Nook		Curlew	28	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Sandpoint		Curlew	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Vances Point		Curlew	4	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Inch Levels South Hide		Curlew	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Rinenore Point		Curlew	8	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Whitecastle		Curlew	12	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Culmore Landfill		Curlew	15	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Quigleys Point		Curlew	47	MW2, (Sea inlets and bays)	Terrestrial	AOD
28/09/2017	Blanket Nook		Curlew	55	MW2, (Sea inlets and bays)	Terrestrial	AOD
09/01/2017			Curlew				AR
27/01/2017			Curlew				AR
07/10/2017			Curlew				AR
22/10/2017			Curlew				AR
04/11/2017			Curlew			Foraging	AR
19/11/2017			Curlew			Foraging	AR
02/12/2017			Curlew				AR
22/12/2017			Curlew				AR
02/01/2018			Curlew				AR
21/01/2018			Curlew				AR
04/03/2018			Curlew				AR
24/03/2018			Curlew				AR
09/01/2017			Curlew				AR

Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
01/02/2018	Culmore Point		Curlew	2	MW2, (Sea inlets and bays)	Terrestrial	AOD
01/02/2018	Whitecastle		Curlew	4	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Carrowkeel		Curlew	8	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Ture point		Curlew	12	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Culmore country park		Curlew	45	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
01/02/2018	Sand Point		Curlew	46	MW2, (Sea inlets and bays)	Oyster farming disturbing birds here	AOD
19/02/2018	Crana estuary		Curlew	1	MW2, (Sea inlets and bays)	Terrestrial	AOD
19/02/2018	Inch		Curlew	38	MW2, (Sea inlets and bays)	On Water	AOD
20/02/2018	Ture point		Curlew	1	MW2, (Sea inlets and bays)	Flying	AOD
20/02/2018	Culmore country park		Curlew	3	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Carrowkeel		Curlew	6	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Rinmore point		Curlew	6	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Whitecastle		Curlew	16	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Creehennan		Curlew	85	MW2, (Sea inlets and bays)	Terrestrial	AOD
20/02/2018	Sand Point		Curlew	118	MW2, (Sea inlets and bays)	Terrestrial	AOD
14/04/2018	Lough Turk / Fullerton Dam		Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	Terrestrial. Heard calling from breeding site above lake shore	ND
21/04/2018	Lough Foyle		Curlew	7	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	Above Water	ND
28/04/2018	Lough Turk / Fullerton Dam		Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	Above Water	ND
29/04/2018	Lough Foyle		Curlew	13	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	Above Water	ND



Wildfowl Distribution Surveys							
Date	Location	Location Code	Species	No. of birds	Habitat	Activity	Surveyor
09/05/2018	Lough Turk / Fullerton Dam		Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	Above Water	ND
09/05/2018	Foyle Estuary		Curlew	3	MW4, (Estuaries) MW2, (Sea inlets and bays) LS2, (Sand shores)	Above Water	ND
26/05/2018	Lough Turk / Fullerton Dam		Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	Above Water	ND
21/03/2019	Reservoir		Curlew	2	HH4, (Montane heath) GS4, (Wet grassland) Two birds calling from north side of reservoir began at 15:15. one bird flew across north side at 15:19	Above Water	AOD

Incidental Observations						
Date	Survey Type	Species	No. of Birds	Notes	Surveyor	
04/05/2018	Breeding Raptor Survey	Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	AR	
04/05/2018	Breeding Raptor Survey	Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	AR	
04/05/2018	Breeding Raptor Survey	Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	AOD	
04/05/2018	Breeding Raptor Survey	Curlew	1	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	AOD	
12/04/2018	Breeding Raptor Survey	Curlew	1	PB2, (Upland blanket bog) possibly same bird. Settled at reservoir.	AOD	



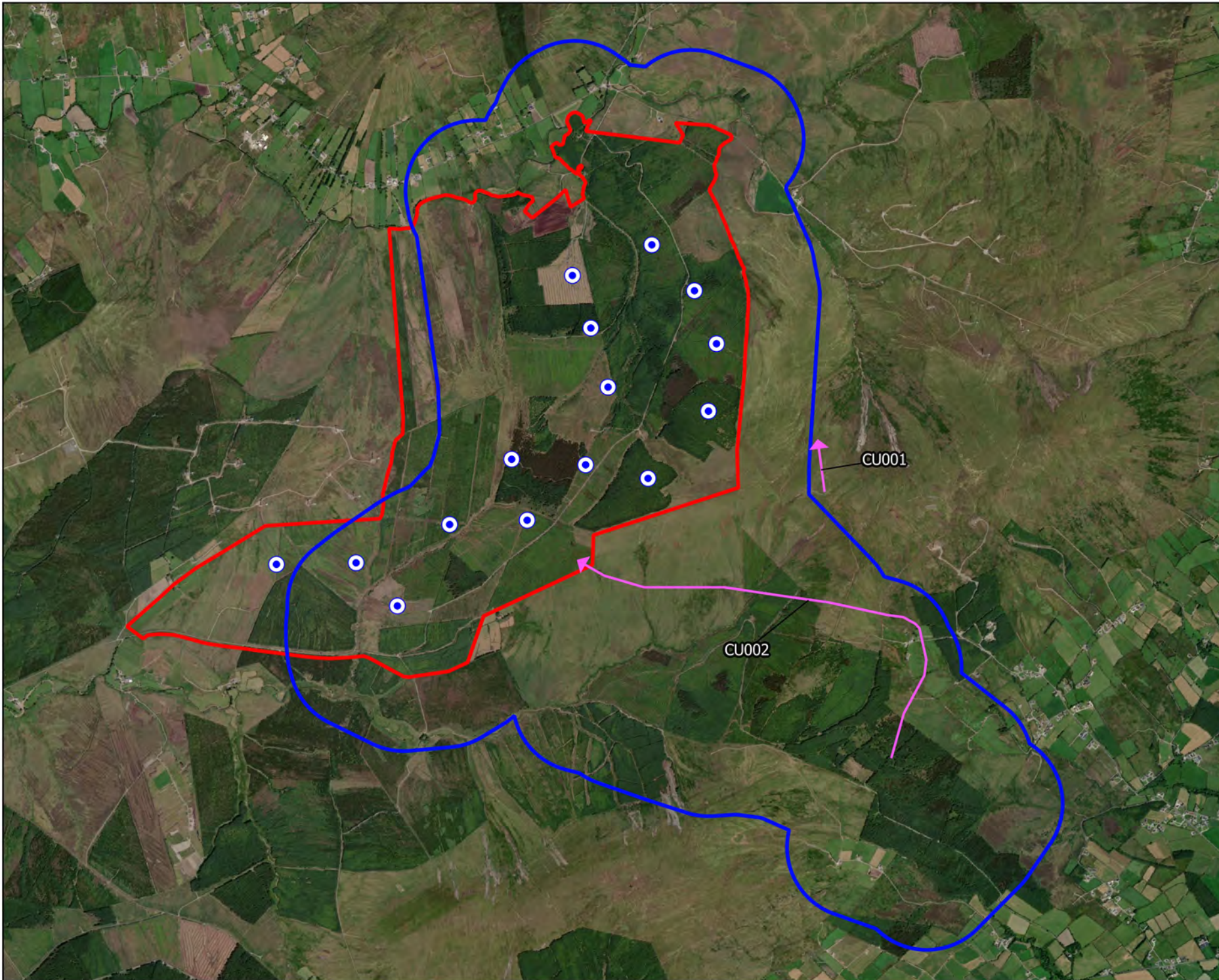
Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight



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Drawing Title Curlew Observations Vantage Point Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.16
Scale 1:25000	Date 10/11/2021
	
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline



Drawing Title

Curlew Observations
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.3.6

Scale

1:35000

Date

10/11/2021



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Table 19 Kestrel Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K001	30/10/2016	VP6	Kestrel	1	09:01:00	38	20	18	0	PB2, (Upland blanket bog) WL2, (Treelines) In flight hunting	Travelling along woodland edge	AR
K002	20/11/2016	VP4	Kestrel	1	15:19:00	20	17	3	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying along forestry edge	Male observed flying from forestry along fence line and up over adjoining plot	AR
K003	13/12/2016	VP4	Kestrel	1	12:40:00	35	25	10	0	PB2, (Upland blanket bog) Hunting	Male observed hunting over dense vegetation offsite	AR
K004	17/12/2016	VP6	Kestrel	1	09:41:00	310	125	185	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male observed hunting for several minutes. Hovering and swooping to the ground but unsuccessful	AR
K005	14/01/2017	VP3	Kestrel	1	15:15:00	141	85	66	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Female observed hunting over glen offsite. Within PCH circling twice.	AR
K006	17/01/2017	VP5a	Kestrel	1	16:10:00	48	31	17	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male hunting offsite for a time before flying onsite over plantation.	AR
K007	26/01/2017	VP6	Kestrel	1	14:22:00	141	55	86	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male observed hunting over glen on and offsite. Hovering although difficult with gusts. Within PCH.	AR
K008	05/02/2017	VP1a	Kestrel	1	11:31:00	201	65	136	0	PB2, (Upland blanket bog) WS5, (Recently felled woodland) Hunting	Female hunting over dense vegetation. Hovering several times within PCH before flying out of sight	AR
K0051	19/03/2017	VP2	Kestrel	1	14:46:00	422	0	422	0	WD4, (Conifer plantation) HH3, (Wet heath) Hunting	Hunting over site in PCH.	AR
K009	26/04/2017	VP2a	Kestrel	1	11:53:00	148	65	83		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Kestrel described above in relation to Buzzard observation	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0010	05/05/2017	VP5a	Kestrel	1	13:38:00	75	75	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) flying	Male Kestrel appeared flying 15m over ground from conifer forest, 200-300m from VP5a, flew east and SE, travelling on.	ND
K0011	07/06/2017	VP3	Kestrel	1	15:33	5	5	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) perched then flew off	Kestrel was seen perched on top of a small spruce sapling (self-seeded small tree among a scattering of same on heather bog) and remained perched for about 10mins. Then observed flying off quite low <10m to the NE towards forest edge. Out of view over contour profile of hill	ND
K0012	27/06/2017	VP2a	Kestrel	1	13:53	270	270			PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) flying	Male Kestrel spotted flying low from south-west, <5m over ground and lower over heather and other vegetation, in apparently atypical 'surprise' hunting technique (like hawk or harrier) then with twists and turn along edge of immature conifer plantation, then moving back north and north-eastward over plantation, pausing to hover a little (10m over ground) and then perch for a few minutes on small conifer top, before flying on out of view through trees	ND
K0013	16/07/2017	VP1a	Kestrel	1	14:58:00	17	17			WD4, (Conifer plantation) Hunting		PM
K0014	16/07/2017	VP1a	Kestrel	2	15:54:00	220		220		WD4, (Conifer plantation) Hunting		PM
K0015	16/07/2017	VP1a	Kestrel	1	16:44:00	173	173			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0016	16/07/2017	VP1a	Kestrel	2	16:57:00	309	154	155		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
K0017	16/07/2017	VP1a	Kestrel	1	17:04:00	620	200	420		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
K0018	18/07/2017	VP6	Kestrel	1	12:02:00	71		71		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
K0019	18/07/2017	VP6	Kestrel	1	15:10:00	845	45	800		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
K0020	18/07/2017	VP6	Kestrel	1	15:35:00	199		199		PB2, (Upland blanket bog) Hunting		PM
K0021	24/07/2017	VP4	Kestrel	1	16:56:00	30	30			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
K0022	24/07/2017	VP4	Kestrel	2	17:03:00	531	200	331		WD4, (Conifer plantation) Hunting		PM
K0023	12/08/2017	VP2a	Kestrel	1	08:20:00	83	0	83	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Adult female hunting in PCH offsite. Flying east over site boundary. Mobbed my MP.	AR
K0024	12/08/2017	VP2a	Kestrel	1	09:30:00	635	30	605	0	HH3, (Wet heath) Hunting	Hunting over heathland. Possibly same adult female.	AR
K0025	16/09/2017	VP1a	Kestrel	1	16:21:00	185	0	185	0	PB2, (Upland blanket bog) Hunting	Male hunting west of vp1 within PCH. Moving SW after a time.	AR
K0026	22/09/2017	VP5a	Kestrel	1	17:29:00	93	20	73	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Adult male hunting offsite within PCH. Flying south east.	AR
K0027	22/09/2017	VP5a	Kestrel	1	18:05:00	71	0	71	0	PB2, (Upland blanket bog) Hunting	Adult male hunting offsite, flying west	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0028	30/09/2017	VP6	Kestrel	1	15:10:00	225	0	225	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) Hunting	Male observed hunting over glen within PCH. Hovering often, mobbed by MP. Flying north.	AR
K0029	27/10/2017	VP2a	Kestrel	1	09:11:00	135	0	135	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Male hunting over Some Hill windfarm	AR
K0030	28/10/2017	VP1a	Kestrel	1	09:59:00	71	0	71	0	PB2, (Upland blanket bog) Hunting	Adult male hunting offsite	AR
K0031	01/12/2017	VP2a	Kestrel	1	14:06:00	300	300			WD4, (Conifer plantation) Adult male hunting	Male	AOD
K0032	18/12/2017	VP2a	Kestrel	1	09:55:00	114	0	114	0	HH3, (Wet heath) WD4, (Conifer plantation) Hunting	Male hunting offsite within PCH	AR
K0033	05/01/2018	VP6	Kestrel	1	11:30:00	295	195	100	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male hunting over glen mostly offsite. Flew off west behind forestry.	AR
K0034	22/01/2018	VP5a	Kestrel	1	14:40:00	111	0	111	0	PB2, (Upland blanket bog) Hunting	Male hunting offsite within PCH. Flew east behind hill.	AR
K0035	06/02/2018	VP5a	Kestrel	1	09:50:00	540	40		500	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Adult Male	KB
K0036	06/02/2018	VP5a	Kestrel	1	10:33:00	360			360	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Adult Male	KB
K0037	21/02/2018	VP3	Kestrel	1	11:23:00	240			240	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting		KB
K0038	21/02/2018	VP3	Kestrel	1	12:05:00	180			180	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting		KB
K0039	03/03/2018	VP6	Kestrel	1	15:10:00	180	0	180	0	PB2, (Upland blanket bog) Hunting	Male hunting over glen.	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0040	18/03/2018	VP2a	Kestrel	1	17:11:00	170	0	170	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Hunting over Some Hill before flying out of sight.	AR
K0041	20/03/2018	VP4	Kestrel	1	15:48:00	7	7		0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunted at up to 5m over bog and forestry edges	Adult Male	RW
K0042	14/04/2018	VP5a	Kestrel	1	12:10:00	60	60			PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Hunting		ND
K0043	06/05/2018	VP1a	Kestrel	2	18:16:00	265		240		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) Pair, flew N to S, passing 1km W of VP1a.	Poss. breeding site to SW of VP1a / Meenyanly	ND
K0044	21/07/2018	VP4	Kestrel	1	13:03:00	230		215		WD4, (Conifer plantation) PB2, (Upland blanket bog) Female foraging over Crockanure, pausing to hover. Continued over moor on Glackmore Hill.		ND
K0045	21/07/2018	VP4	Kestrel	1	13:46:00	110	110			WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) Male Kestrel flew N to S, over WD4, >400m W of VP4. Flew direct over/through treetops, then over bog / heath to SW, out of view.		ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0046	21/08/2018	VP2a	Kestrel	1	10:35:00	20	20			WD4, (Conifer plantation) PB2, (Upland blanket bog) TRAVELLING		AOD
K0047	21/08/2018	VP2a	Kestrel	1	11:38:00	200	60	140		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting edge of Sorne		AOD
K0048	30/08/2018	VP6	Kestrel	1	11:38:00	200	200			PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting		AOD
K0049	20/09/2018	VP4	Kestrel	1	10:40:00	200	200			PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting, perched	Flew to an old nest (possible k nest from summer) on pylon spent 100s on nest preening before flew off	AOD
K0050	21/09/2018	VP3	Kestrel	1	11:44:00	8	8			PB2, (Upland blanket bog) GS4, (Wet grassland) TRAVELLING		AOD
K0052	14/10/2018	VP2	Kestrel	1	16:20:00	23	23	0	0	GS4, (Wet grassland) PB2, (Upland blanket bog) Hunting	Hunting over Sorne Hill	AR
K0053	22/11/2018	VP2	Kestrel	1	11:47:00	230	230			PB2, (Upland blanket bog) HH4, (Montane heath) WD4, (Conifer plantation) Hunting bird from Sorne windfarm to site		AOD
K0054	19/01/2019	VP1	Kestrel	1	12:05:00	20	0	20		WD4, (Conifer plantation) GS4, (Wet grassland) Travelling over site		AOD
K0055	15/03/2019	VP1	Kestrel	1	11:23:00	14	14			WD4, (Conifer plantation) Travelling north to south west edge of site	Female adult	AOD
K0056	10/04/2019	VP3a	Kestrel	1	12:14:00	65		65		HH3, (Wet heath) PB2, (Upland blanket bog)	male	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										hovering 300m south of VP and made spiralling descent towards ground/prey out of view		
K0057	10/04/2019	VP3a	Kestrel	1	12:21:00	74		74		HH3, (Wet heath) PB2, (Upland blanket bog) Male seen again, hovering and moving position twice SW of VP the moving SW. Made descent rapidly out of view in Valley.	Male	ND
K0058	13/07/2019	VP1a	Kestrel	1	10:54:00	35		5	30	PB2, (Upland blanket bog) HH3, (Wet heath) Foraging, hovering, moving southwest	Breeding territory	ND
K009	16/07/2019	VP3a	Kestrel	1	10:12:00	106			106	PB2, (Upland blanket bog) HH3, (Wet heath) KESTREL foraging, hovering, 500m SW of VP3a, then dipped down into valley	In breeding territory	ND
K0060	16/07/2019	VP3a	Kestrel	1	12:14:00	60			60	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) male foraging then circling; distant	In breeding territory	ND
K0061	16/07/2019	VP3a	Kestrel	1	12:43:00	30		30		PB2, (Upland blanket bog) GS4, (Wet grassland) HH3, (Wet heath) TRAVELLING; flying low from E to W, through bottom of valley	In breeding territory	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
K0062	20/07/2019	VP4	Kestrel	1	12:49:00	140			110	PB2, (Upland blanket bog) WD4, (Conifer plantation) Travelling		JB
K0063	27/07/2019	VP6	Kestrel	1	15:26:00	84			84	WD4, (Conifer plantation) GS4, (Wet grassland) HH3, (Wet heath) Foraging. Flew into view over Crockanure forest, then river valley, where hovering and moving eastward over stream area, forest edge	Male	ND
K0064	23/08/2019	VP2	Kestrel	1	16:24:00	360	360			PB4, (Cutover bog) WD4, (Conifer plantation) Hunting		JK
K0065	23/08/2019	VP2	Kestrel	1	20:01:00	100	100			PB4, (Cutover bog) hunting		JK
K0066	11/09/2019	VP6	Kestrel	2	09:30:00	500	500			GS4, (Wet grassland) Mobbing	AD/Pair	JK

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and Activity	Surveyor
K067	VP5	22/01/2021	11:14	Kestrel	1	510	241	269			conifer plantation and raised bog; hunting over feemuck. flew off in easterly direction., male	DM
K068	VP2	09/02/2021	14:00	Kestrel	1	60			60		raised bog; soaring, male	MM
K069	VP7	22/02/2021	11:35	Kestrel	1	45			45		raised bog; travelling, female	MM
K070	VP1a	11/04/2021	11:05	Kestrel	1	150	0	20	130	0	conifer plantation; k. male started to gain height over forestry. lost sight	PW
K071	VP7	16/05/2021	12:06	Kestrel	1	195	12	183	0	0	bogs; hovering/hunting, male	PW

Vantage Point Survey 2021												
Map Ref.	VP	Date	Time	Species	Number	duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and Activity	Surveyor
K072	VP2	22/05/2021	16:15	Kestrel	1	45	0	0	45	0	bogs; hovering, hovering near turbine	MM
K073	VP7	07/06/2021	12:11	Kestrel	1	285	0	285	0	0	bogs and conifer plantation; hunting, lost sight	PW
K074	VP4	15/07/2021	09:22	Kestrel	1	94	23	71	0	0	bogs; ad male hunting. moved off out of site in SW direction, ad male	DM
K075	VP7	25/07/2021	11:30	Kestrel	1	45	0	45	0	0	bogs; hovering then went out of site behind forest	MM
K076	VP7	25/07/2021	12:55	Kestrel	1	60	0	45	0	0	bogs; hunting over moorland then moved downward	MM
K077	VP2	31/07/2021	13:55	Kestrel	1	30	30	0	0	0	bogs; travelling low and fast in SW direction, male	MM
K078	VP7	21/08/2021	10:22	Kestrel	1	41	0	41	0	0	conifer plantation and bogs; travelling low and fast in SW direction, adult male travelling in NE direction @ circa 20m	DM
K079	VP2	31/08/2021	11:04	Kestrel	1	204	71	133	0	0	bogs; hunting, ad female hunting	DM
K080	VP6	20/09/2021	14:12	Kestrel	1	346	224	122	0	0	bogs; hunting, ad male hunting	MM
K081	VP7	25/09/2021	17:00	Kestrel	1	540	40	120	380	0		MM
K082	VP3	28/09/2021	17:15	Kestrel	1	30	15	15	0	0	improved agricultural grassland; flew and landed on tree	MM
K083	VP3	28/09/2021	19:32	Kestrel	1	60	10	50	0	0	conifer plantation and bogs; flew over forest and landed on an ESB pole	MM

Vantage Point Survey – Non-flight Observations						
Date	VP	Species	No. of Birds	Time	Comments	Surveyor
20/07/2017	VP5a	Kestrel	1	16:02:00	Heard, Not seen	PM

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
K001	07/07/2017	11:19	Kestrel	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
K002	05/04/2018	11:38:00	Kestrel	1	Hunting (soaring and hovering) near same windfarm	Male	AOD
K003	20/06/2018	14:51:00	Kestrel	1	WD4, (Conifer plantation) PB2, (Upland Blanket Bog) Hunting/hovering on site		AOD
K004	25/06/2018	12:03:00	Kestrel	1	GS4, (Wet grassland) Hovering over GS4		AOD
K005	19/07/2018	16:48:00	Kestrel	1	WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting west of site. Same area		AOD
K006	16/05/2021	15:11	Kestrel	1	bogs; hunting, male (suitable nesting habitat; possible breeder)		PW
K007	06/06/2021	19:30	Kestrel	1	bogs; hunting, male (suitable nesting habitat; possible breeder)		PW
K008	11/07/2021	19:20	Kestrel	1	bogs; hunting, male (suitable nesting habitat; possible breeder)		PW

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
K001	14/04/2017	12:00:00	Kestrel	1	HH3, (Wet heath) Hunting	Flying over; Non-breeding	AR
K002	16/04/2017	13:10:00	Kestrel	1	HH3, (Wet heath) Hunting	Flying over; Non-breeding	AR
K003	30/04/2017	09:01:00	Kestrel	1	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
K004	07/05/2017	12:50:00	Kestrel	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
K005	16/05/2017	08:35:00	Kestrel	1	PB2, (Upland blanket bog) Hunting	Species observed but suspected to be still on Migration; Non-breeding	AR
K006	18/06/2017	11:13:00	Kestrel	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
K007	08/07/2017	11:20:00	Kestrel	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
K008	30/07/2017	13:10:00	Kestrel	1	PB2, (Upland blanket bog) HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
K009	10/04/2018	14:10:00	Kestrel	1	PB4, (Cutover bog) hunting over bog 120s band 2/3. offsite	Male	AOD
K0010	11/04/2018	15:20:00	Kestrel	1	PB2, (Upland blanket bog) travelling on Illies Hill offsite	Male	AOD
K0011	11/04/2018	15:41:00	Kestrel	1	PB2, (Upland blanket bog) travelling on Illies Hill. Offsite	Male	AOD
K0012	13/04/2018	14:08:00	Kestrel	2	WD4, (Conifer plantation) Mating pair on treetops copulated twice in 10 mins, then male flew off hunting. Offsite	Male and female	AOD
K0013	18/05/2018	14:18:00	Kestrel	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Commuting over conifer and bog	JOS
K0014	18/05/2018	15:57:00	Kestrel	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Commuting over conifer and bog	JOS
K0015	07/06/2018	16:45:00	Kestrel	1	WD4, (Conifer plantation) Female with prey flew into trees probable nest at N55 14418 W734178 flew away for some time and returned to some spot row of WD4		AOD
K0016	16/07/2018	16:28:00	Kestrel	1	WD4, (Conifer plantation) PB2, (Upland blanket bog) Male hunting off site then flew on		AOD
K0017	16/07/2018	18:18:00	Kestrel	1	GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Male adult hunting over GA1 and WD4 near 2km buffer		AOD
K0018	17/04/2019	09:12:00	Kestrel	1	WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying past along forest edge zone NE to SW. No Flight recorded as obscured by trees	Sorne Hill C4031	ND
K0019	15/05/2019	13:02:00	Kestrel	2	HH3, (Wet heath) GS3, (Dry-humid acid grassland) Travelling: Female and male flew NE uphill slope N of L Turk reservoir, >25m above ground	pair in suitable breeding habitat	JB
K0020	21/05/2019	13:18:00	Kestrel	1	HH3, (Wet heath) Foraging: Male hovering 25m high over heathy slopes, then flew overhead and to NW over hilltop.	Adult male in suitable breeding habitat	ND
K0021	27/07/2019	13:02:00	Kestrel	1	WD4, (Conifer plantation) Male K. flew a broad circling site-fixed flight 20m high over forested habitat in Meenyanly at valley bottom. Distant obs. >1km	Likely K. breeding site in this area.	ND
K022	22/04/2021	12:14	Kestrel	1	raised bog, hunting, adult male, moved in a south direction		DM

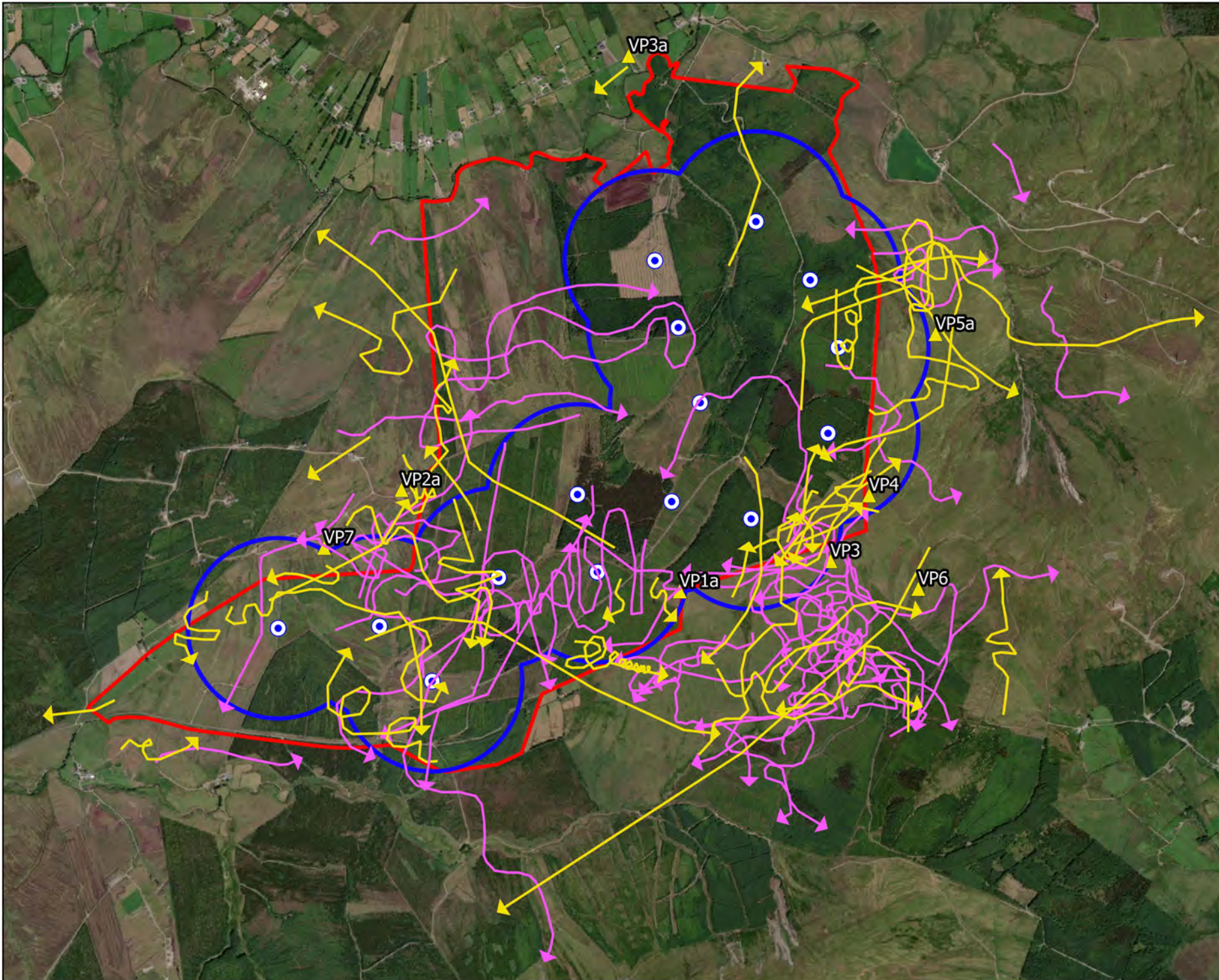
Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
K023	21/05/2021	12:00	Kestrel	1	bogs, hunting, hunting close to turbines		MM
K024	12/06/2021	10:12	Kestrel	1	bogs, mobbed buzzard fiercely, stooping repeatedly at it		MM
K025	13/06/2021	09:43	Kestrel	1	bogs and conifer plantation, hunting, ad male		DM
K026	10/07/2021	10:40	Kestrel	1	improved agricultural grassland, soaring then traveling, starling flock startled as the kestrel went over		MM
K027	18/07/2021	11:23	Kestrel	1	bogs, ad female hunting over bog		DM
K028	19/07/2021	09:14	Kestrel	1	bogs, ad male hunting over bog, ad male		DM

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
K001	29/10/2016	08:31	Kestrel	1	Adult male	WD4, (Conifer plantation) Mobbed by RN/HC	AR
K002	18/12/2016	14:39	Kestrel	1	adult male	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting over dense vegetation	AR
K003	18/03/2017	08:31	Kestrel	1	Adult male	HH3, (Wet heath) Hunting	AR
K004	14/10/2017	12:07:00	Kestrel	1		Wet Heath, Hunting	AR
K005	15/10/2017	09:27:00	Kestrel	1		Half day WWS. 1 target species recorded. 4 in total for WWS.	AR
K006	16/12/2017	13:39	Kestrel	1		PB2, (Upland blanket bog) Hunting	AR
K007	27/01/2018	10:09:00	Kestrel	1		PB2, (Upland blanket bog) Hunting	AR
K008	18/01/2019	14:58:00	Kestrel	1	Adult male	Hunting Band 1 on site. Perched for 140s	AOD

Migration Vantage Point Surveys							
Map Ref.	Date	VP	Species	No. of birds	Notes on habitat and activity	Comments	Surveyor
No Flight Available	31/08/2016	Migration vp	Kestrel	1	Soaring/ hunting over conifer plantation edge, PB2 bog, and south over GA1 agricultural grassland, towards shore.		JOS

Incidental Observation						
Date	Survey Type	Species	No. of Birds	Notes	Surveyor	
25/11/2016	During HH survey at Area 4	Kestrel	1	In flight over site boundary	AR	
17/12/2016	During HH roost survey	Kestrel	1	Observed hunting over heathland to the west of site	AR	
27/02/2017	During HH dusk survey	Kestrel		In flight along site boundary	AR	
09/10/2017	HH Roost Survey	Kestrel	1	Hunting	AR	
09/10/2017	HH Roost Survey	Kestrel		No HH Activity. 1 K adult male Hunting	AR	
15/10/2017	HH Roost Survey	Kestrel	1	Hunting	AR	
15/10/2017	HH Roost Survey	Kestrel		No HH Activity. 2 BZ hunting offsite, K in flight over southern boundary	AR	
19/11/2017	Waterfowl survey	Kestrel		hunting	AR	
04/12/2017	HH Roost Survey	Kestrel	1		AR	
11/12/2017	VP Survey	Kestrel		First seen as observer returned to car after watch. Bird flew up the hill towards VP5a, lost to sight above conifers. Then seen again 2 minutes later flying North to South on the west side of the access road, then flew west over conifers and was lost to sight.	CMc	
22/12/2017	Waterfowl Survey	Kestrel	1		AR	
02/01/2018	During waterfowl count	kestrel			AR	
21/01/2018	During HH roost survey	kestrel			AR	

Incidental Observation					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
24/01/2018	During HH roost survey	kestrel		In flight offsite	AR
21/02/2018	HH Roost	Kestrel	1	K and BZ appeared together flying over valley from SW to NE, K was mobbing BZ	KB
14/04/2018	Lough Inn	Kestrel	1	Flying	ND
05/10/2018	HH VP5	Kestrel	2	Male and female recorded outside of 2km buffer	AR
29/10/2018	HHVP4	Kestrel	1	Male in flight off site	AR
14/03/2019	HHVP6	Kestrel	1	Flew from south site to north band 2	AOD
21/03/2019	HHVP2	Kestrel	1	Hunting west of HHVP 18:45	AOD
28/01/2021	HH Roost; HHVP3	Kestrel	1	PB1, (Raised bog) Traveling. Adult Male	MM



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title

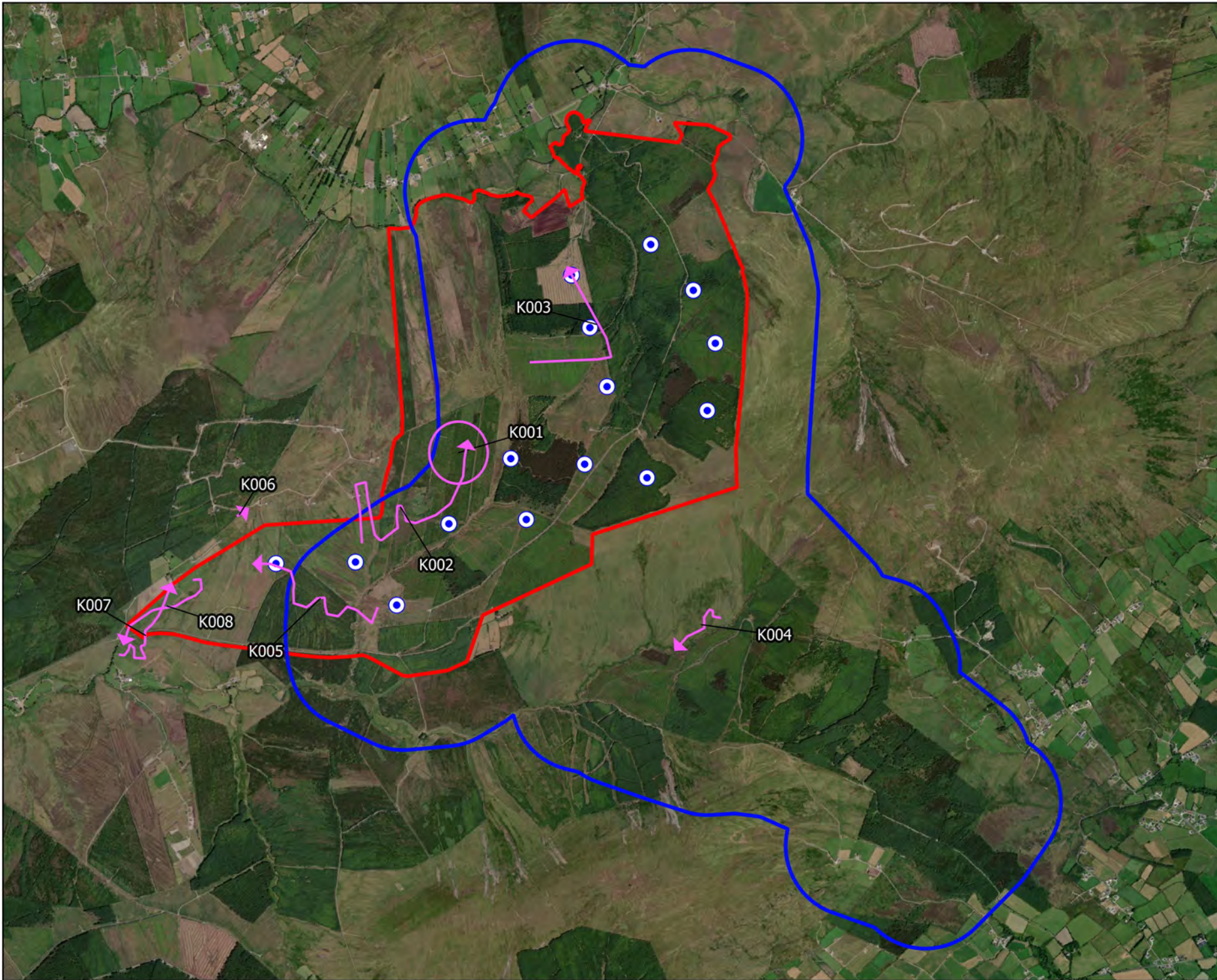
Kestrel Observations
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.17
Scale 1:27500	Date 10/11/2021

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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ↗ Flightline



Drawing Title

Kestrel Observations
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.3.7

Scale

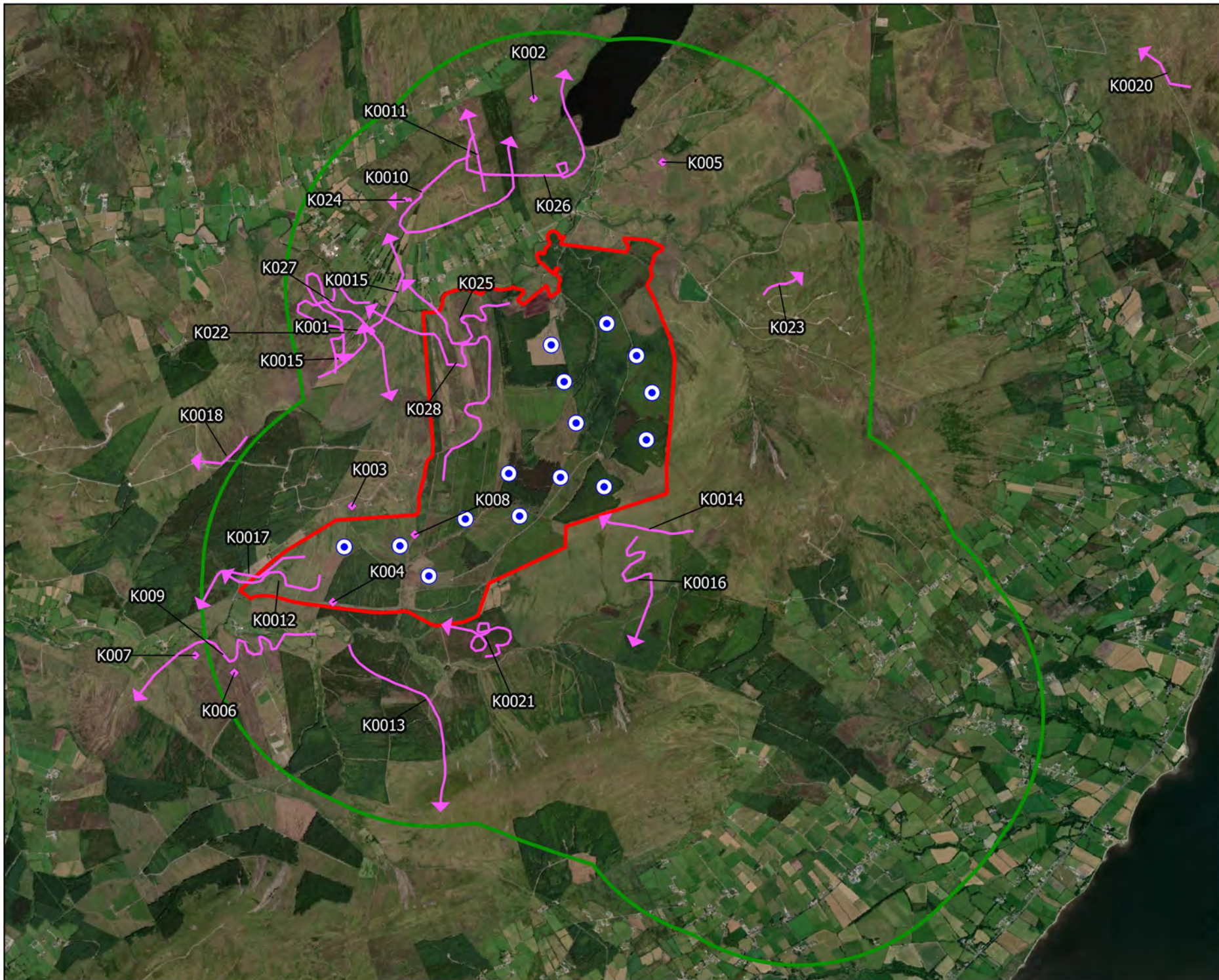
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10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- ↗ Flightline
- ◆ Observation



Drawing Title

Kestrel Observations
Breeding Raptor Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.4.6

Scale

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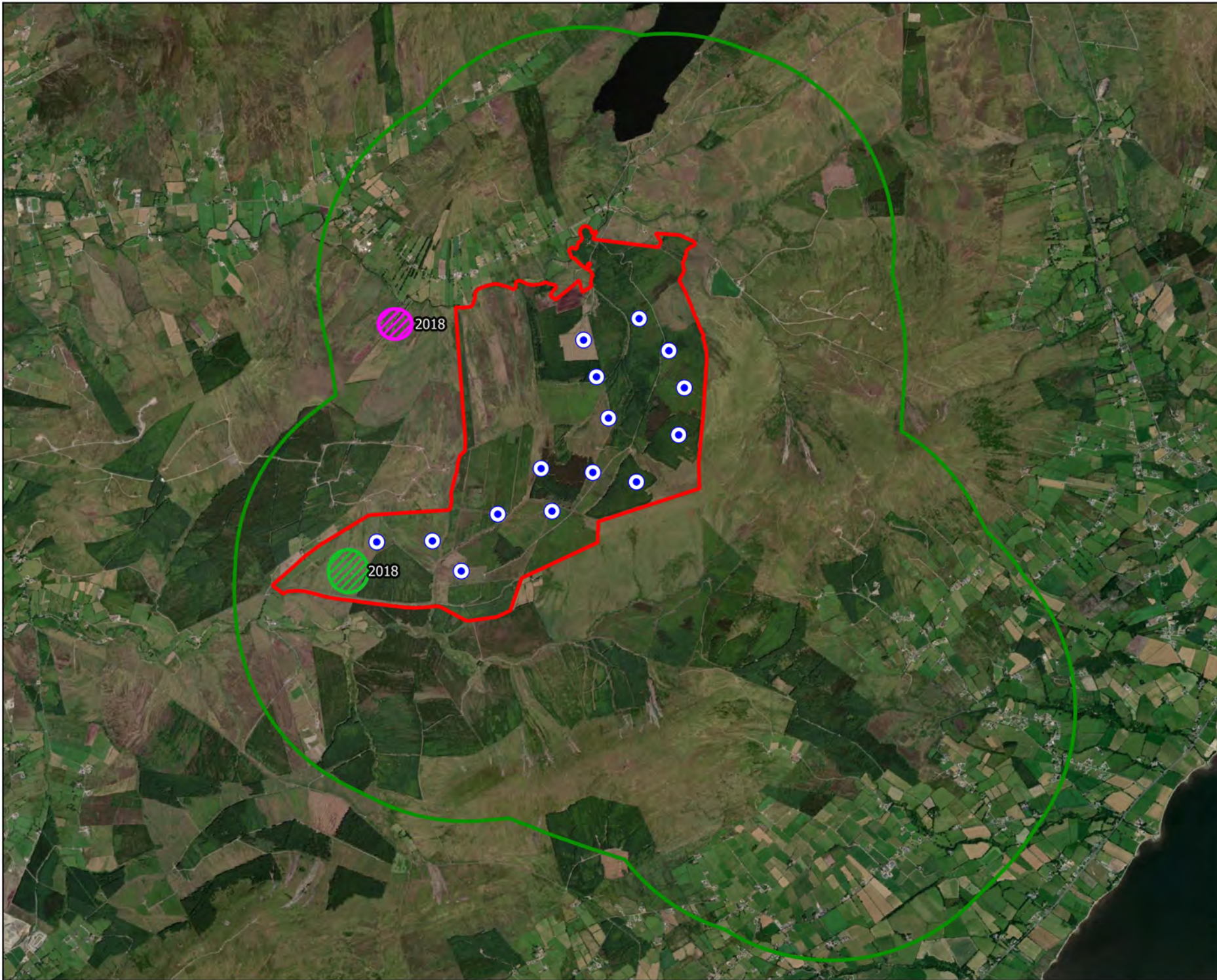
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Confirmed Territory
- Possible Territory



Drawing Title

Kestrel Territories
Breeding Raptor Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.4.6.1

Scale

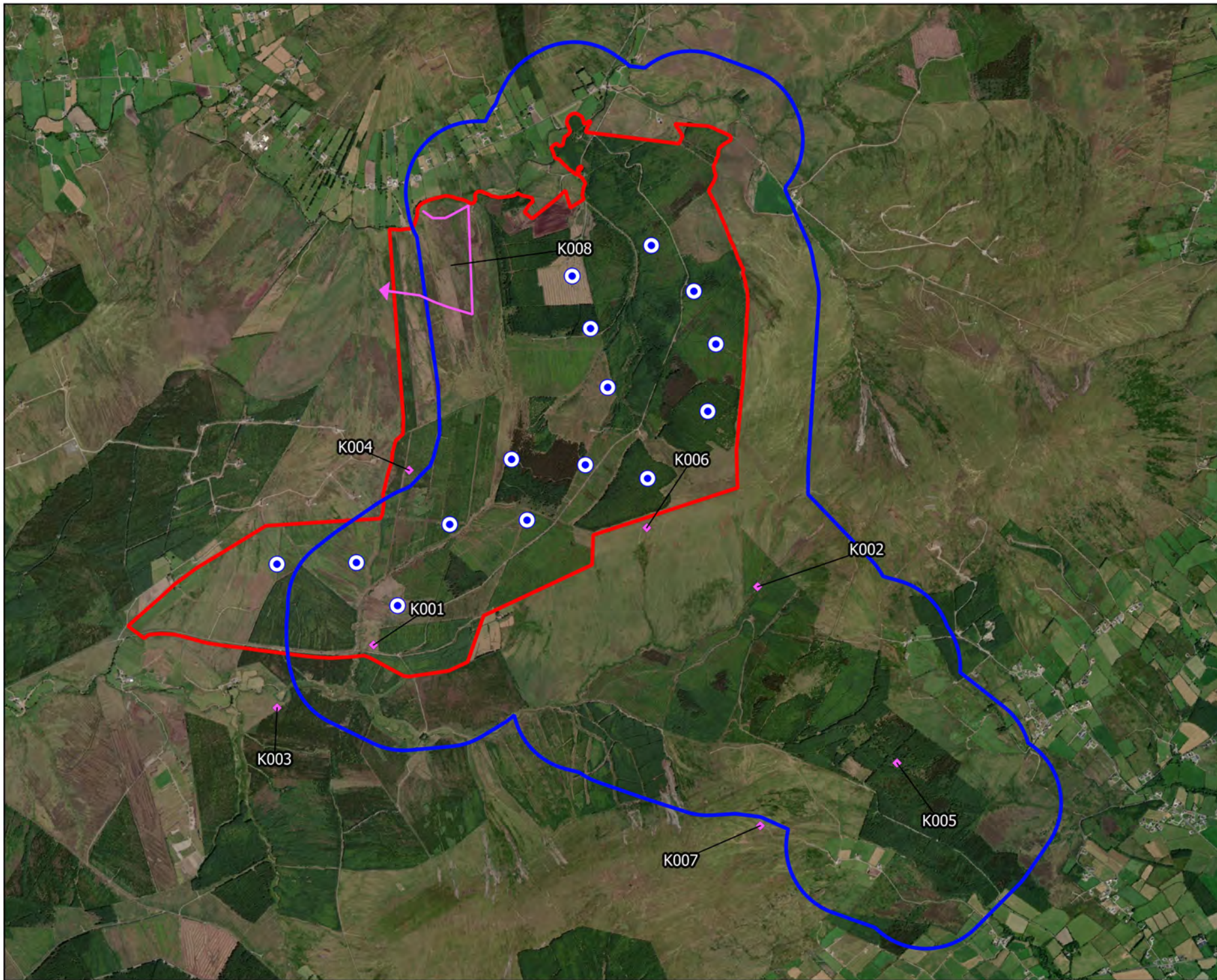
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Date

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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline
- ◆ Observations

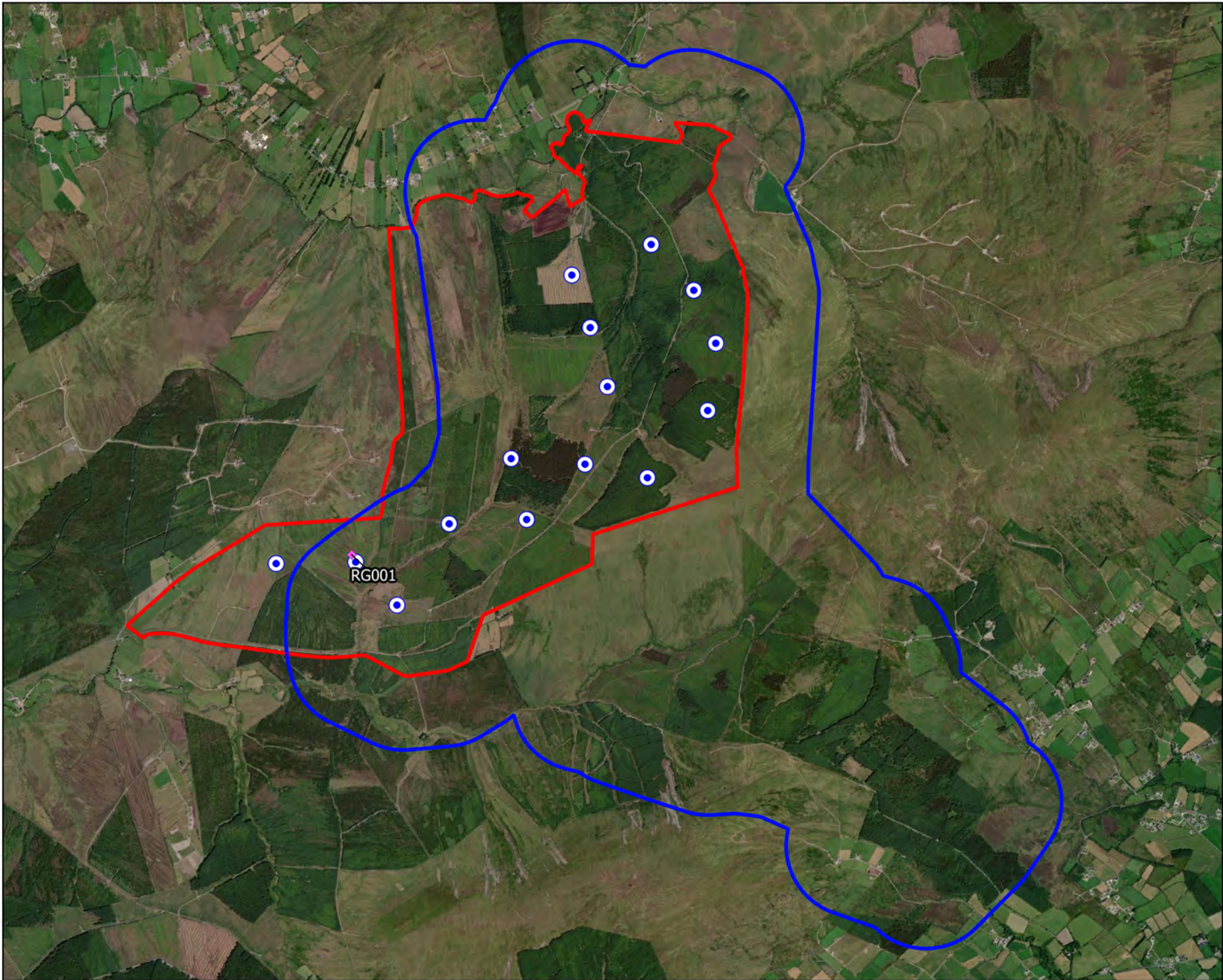


Drawing Title Kestrel Observations Winter Walkover Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.5.8
Scale 1:35000	Date 10/11/2021
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Table 20 Red Grouse Survey Data

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
RG001	29/10/2016	12:41:00	Red Grouse	1	Adult male	PB2, (Upland blanket bog) Flushed out during walkover transect	AR



Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observations



Drawing Title

Red Grouse Observations
Winter Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.5.9

Scale

1:35000

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Table 21 Snipe Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
SN001	22/10/2016	VP2a	Snipe	1	08:14:00	18	5	13	0	PB2, (Upland blanket bog) HH3, (Wet heath) Flushed	Emerging with alarm call, zig-zag flight before landing	AR
SN002	23/10/2016	VP4	Snipe	1	07:35:00	15	15	0	0	HH3, (Wet heath) Rose for a short distance	Emerged from dense vegetation flying for a short period before landing again	AR
SN003	30/10/2016	VP6	Snipe	1	10:51:00	7	7	0	0	PB2, (Upland blanket bog) HH3, (Wet heath) Amongst vegetation	Heard calling before taking flight for a short period of time	AR
SN004	05/11/2016	VP1a	Snipe	1	13:10:00	11	11	0	0	PB2, (Upland blanket bog) Flushed	Flew from vegetation for a short distance	AR
SN005	05/11/2016	VP1a	Snipe	1	17:10:00	18	18	0	0	HH3, (Wet heath) PB2, (Upland blanket bog) Flew into dense vegetation		AR
SN006	19/11/2016	VP6	Snipe	2	16:48:00	11	11	0	0	PB2, (Upland blanket bog) Coming into roost	Observed and heard coming into roost	AR
SN007	20/11/2016	VP4	Snipe	1	17:21:00	9	9	0	0	PB2, (Upland blanket bog) Flushed	Flushed from dense vegetation	AR
SN008	22/11/2016	VP2a	Snipe	1	15:12:00	6	6	0	0	HH3, (Wet heath) Calling, in flight	Heard calling and in flight momentarily before landing	AR
SN009	22/11/2016	VP2a	Snipe	1	14:20:00	5	5	0	0	HH3, (Wet heath) In flight	Took flight for a short duration whilst sounding alarm calls	AR
SN0010	26/11/2016	VP5a	Snipe	1	16:47:00	17	10	7	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Flying into roost	Flying in to roost in dense vegetation	AR
SN0011	06/12/2016	VP3	Snipe	1	07:51:00	17	17	0	0	PB2, (Upland blanket bog) Flushed	Individual flushed from dense vegetation landing 80 metres away	AR
SN0012	11/12/2016	VP2a	Snipe	1	11:03:00	35	12	23		HH3, (Wet heath) In flight calling	Rose from dense cover sounding alarm calls, entering PCH before descending rapidly	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
SN0013	11/02/2017	VP3	Snipe	1	09:21:00	19	19	0	0	PB2, (Upland blanket bog) Flushed	Flushed from dense cover by sheep	AR
SN0014	18/02/2017	VP6	Snipe	1	09:21:00	16	9	7	0	PB2, (Upland blanket bog) Flushed	Rose from cover in flight for a short time before landing in cover again	AR
SN0018	04/03/2017	VP1	Snipe	1	18:10:00	19	19	0	0	PB2, (Upland blanket bog) Flying into roost	Flying into roost amongst dense tussocks close to vp1.	AR
SN0015	19/03/2017	VP2a	Snipe	1	19:15:00	24	19	5	0	HH3, (Wet heath) Flushed from heather	Flushed from Heather.	AR
SN0016	31/03/2017	VP6	Snipe	2	20:31:00	31	31	0	0	PB2, (Upland blanket bog) In flight	Two heard calling and seen flying into roost	AR
SN0017	25/05/2017	VP6	Snipe	2	20:44:00	300	0	300	0	PB2, (Upland blanket bog) GS4, (Wet grassland) HH3, (Wet heath) flying	SN in drumming flight at 30m to 60m over variably sloping terrain, within circle of flight area, marked on map. 5 mins duration covers beginning to end of period when seen or heard drumming	ND
SN0019	14/10/2018	VP2	Snipe	1	17:11:00	18	18	0	0	HH3, (Wet heath) PB2, (Upland blanket bog) Flushed	Flushed from vegetation offsite	AR
SN0020	20/12/2018	VP2	Snipe	6	13:18:00	18	18			WD4, (Conifer plantation) HH4, (Montane heath) Flock flew in and settled on site		AOD
SN0021	20/12/2018	VP2	Snipe	1	13:52:00	5	5			HH4, (Montane heath) WD4, (Conifer plantation) Chased by sh into wd4		AOD
SN0022	09/01/2019	VP5	Snipe	1	12:39:00	20	10	10		GS4, (Wet grassland) FLYING		AOD
SN0023	21/05/2019	VP5	Snipe	1	06:35:00	300		300		PB2, (Upland blanket bog) HH3, (Wet heath) PF2, (Poor fen and flush)		JB
SN0024	28/05/2019	VP6	Snipe	2	08:34:00	240		240		PB2, (Upland blanket bog) HH3, (Wet heath) GS4, (Wet	Breeding territory	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										grassland) Combined records of chipping (06:23 onwards) and drumming flights from 08:34 to 08:55		
SN0025	19/06/2019	VP4	Snipe	3	09:00:00	16	16			PB2, (Upland blanket bog) Flying together alarm calling. There is a wet flush on the side of the valley that they could have been feeding or roosting at before being disturbed. Offsite.	Flying together alarm calling. There is a wet flush on the side of the valley that they could have been feeding or roosting at before being disturbed. Offsite.	JB

Vantage Point Non-Flight Observations							
Date	VP	Species	No. of Birds	Time	Comments	Surveyor	
30/06/2017	VP6	Snipe	1	14:15:00	Snipe chipping (not seen, not flying) lower down in stream valley 300m N of VP6	ND	
27/05/2018	6	Snipe	1	18:50:00	Chipping in rushy flush zone. Heard. No flight	ND	
20/04/2019	3a	Snipe	1	18:42:00	SE in valley bottom, chipping	ND	
16/07/2019	3a	Snipe	2	08:35:00	Snipe chipping intermittently over 2-hour period. In valley bottom 700m S of Vp3a	ND	
23/07/2019	5	Snipe	1	10:51:00	Snipe chipping 300m to NE	JB	

Breeding Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
SN001	09/04/2017	12:31	Snipe	1	PB2, (Upland blanket bog) In flight into flush	Suitable nesting habitat; Possible breeder	AR

Breeding Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
SN002	15/04/2017	12:30	Snipe	1	HH3, (Wet heath) Flushed	Suitable nesting habitat; Possible breeder	AR
SN003	15/04/2017	12:50	Snipe	1	HH3, (Wet heath) Flushed	Suitable nesting habitat; Possible breeder	AR
SN004	17/04/2017	10:20	Snipe	1	PB2, (Upland blanket bog) Calling	Suitable nesting habitat; Possible breeder	AR
SN005	17/04/2017	10:40	Snipe	1	PB2, (Upland blanket bog) In flight	Suitable nesting habitat; Possible breeder	AR
SN006	29/04/2017	10:14	Snipe	1	HH3, (Wet heath) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN007	06/05/2017	12:45	Snipe	1	PB2, (Upland blanket bog) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN008	06/05/2017	13:35	Snipe	1	PB2, (Upland blanket bog) Alarm call	Agitated behaviour or anxiety calls; Probable breeding	AR
SN009	13/05/2017	09:40	Snipe	1	HH3, (Wet heath) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0010	18/05/2017	12:06	Snipe	1	PB2, (Upland blanket bog) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0011	20/05/2017	09:26	Snipe	1	PB2, (Upland blanket bog) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0012	10/06/2017	09:59	Snipe	1	PB2, (Upland blanket bog) Territorial call	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0013	10/06/2017	11:30	Snipe	1	HH3, (Wet heath) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0014	11/06/2017	08:59	Snipe	1	HH3, (Wet heath) Calling in flight	Suitable nesting habitat; Possible breeder	AR
SN0015	11/06/2017	10:34	Snipe	1	PB2, (Upland blanket bog) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0016	16/06/2017	13:29	Snipe	1	HH3, (Wet heath) Calling	Suitable nesting habitat; Possible breeder	AR
SN0017	23/07/2017	10:29	Snipe	1	PB2, (Upland blanket bog) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SN0018	29/07/2017	13:30	Snipe	1	PB2, (Upland blanket bog) Flushed and Calling	Suitable nesting habitat; Possible breeder	AR
SN0019	25/06/2018	10:57:00	Snipe	1	PB2, (Upland Blanket Bog) Chipping Bird in PB2		AOD
SN0020	25/06/2018	15:49:00	Snipe	1	PB2, (Upland Blanket Bog) GS4, (Wet grassland) Flushed		AOD

Breeding Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
SN0021	25/06/2018	15:55:00	Snipe	1	PB2, (Upland Blanket Bog) GS4, (Wet grassland) Flushed		AOD
SN0022	28/06/2018	16:20:00	Snipe	1	Chipping northwest of site		AOD
SN0023	28/06/2018	16:26:00	Snipe	1	Chipping northwest of site		AOD
SN024	29/04/2021	10:35	Snipe	1	bogs; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN025	29/04/2021	12:55	Snipe	1	bogs; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN026	29/04/2021	13:45	Snipe	1	bogs; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN027	30/04/2021	12:05	Snipe	1	raised bog; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN028	30/04/2021	13:56	Snipe	1	raised bog; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN029	30/04/2021	10:52	Snipe	1	bogs; flying, heard calling, not drumming (suitable nesting habitat; possible breeder)		PW
SN030	30/04/2021	12:12	Snipe	1	bogs; flying, flushed (suitable nesting habitat; possible breeder)		PW
SN031	16/05/2021	14:05	Snipe	1	bogs and heath; flushed (suitable nesting habitat; possible breeder)		PW
SN032	24/05/2021	13:50	Snipe	1	raised bog; flushed (suitable nesting habitat; possible breeder)		DM
SN033	24/05/2021	16:25	Snipe	1	raised bog; flushed (suitable nesting habitat; possible breeder)		DM
SN034	25/05/2021	17:09	Snipe	1	cutover bog; flushed (suitable nesting habitat; possible breeder)		DM
SN035	25/05/2021	20:49	Snipe	1	raised bog; flushed (suitable nesting habitat; possible breeder)		DM
SN036	06/06/2021	20:06	Snipe	1	bogs; calling/chirping (suitable nesting habitat; possible breeder)		PW
SN037	09/06/2021	19:22	Snipe	1	improved agricultural grassland; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN038	09/06/2021	21:11	Snipe	1	bogs; flying, flushed (suitable nesting habitat; possible breeder)		DM
SN039	10/06/2021	14:30	Snipe	1	bogs; drumming (singing male; possible breeder)		DM
SN040	26/07/2021	13:36	Snipe	1	bogs; flushed (suitable nesting habitat; possible breeder)		DM

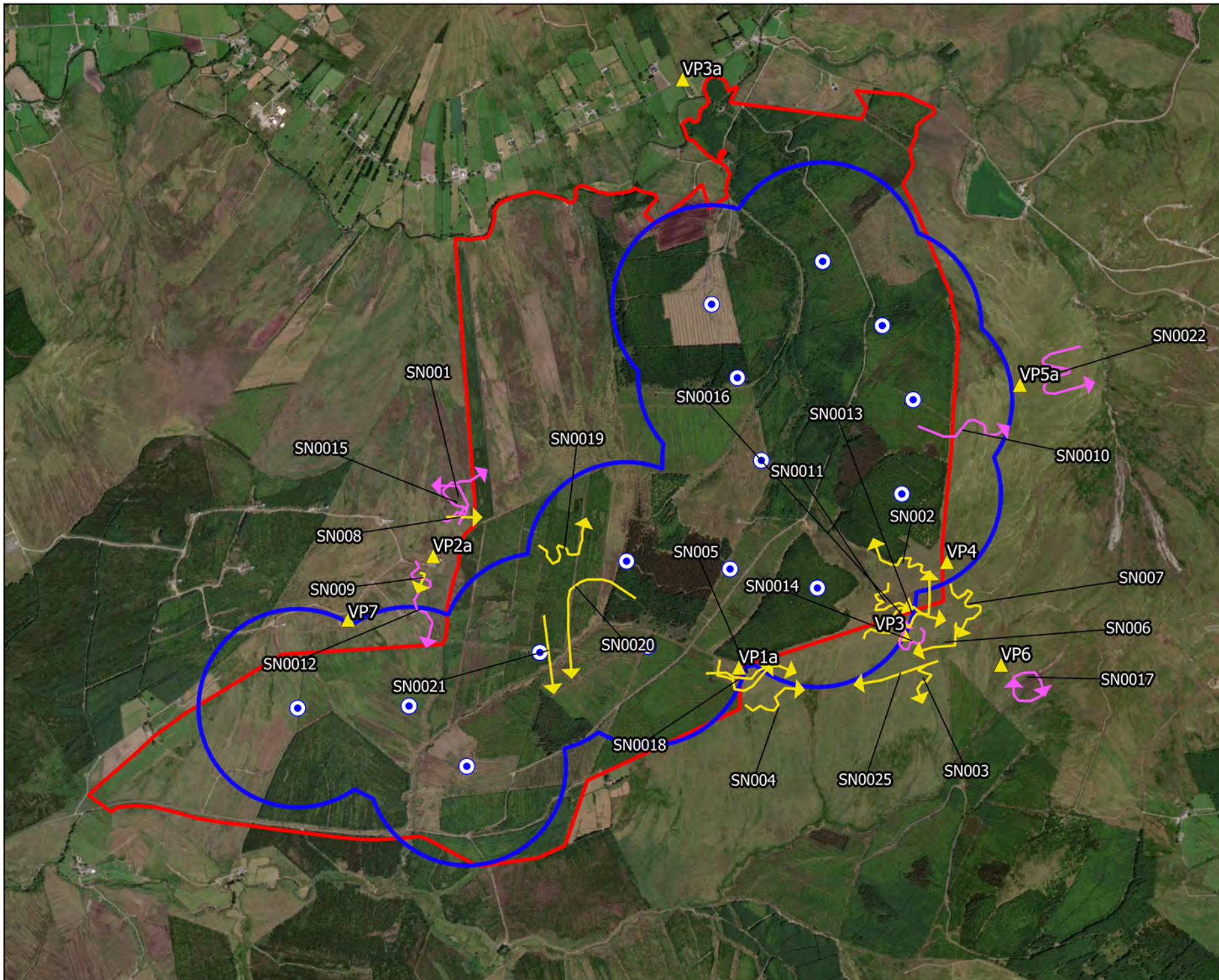
Winter Walkover Surveys							
Map Ref.	Date	Time of Observation	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
SN001	29/10/2016	08:02:00	Snipe	1		HH3, (Wet heath) Flushed, Alarm calls	AR
SN002	29/10/2016	08:15:00	Snipe	1		HH3, (Wet heath) Flushed	AR
SN003	29/10/2016	13:21:00	Snipe	1		PB2, (Upland blanket bog) Flushed	AR
SN004	18/12/2016	14:06:00	Snipe	1		WS5, (Recently felled woodland) Flushed, alarm calls	AR
SN005	22/01/2017	11:59:00	Snipe	1		WS5, (Recently felled woodland) Flushed from vegetation	AR
SN006	22/01/2017	12:34	Snipe	1		PB2, (Upland blanket bog) Flushed from vegetation	AR
SN007	18/03/2017	12:52:00	Snipe	1		PB2, (Upland blanket bog) Flushed/alarm calls	AR
SN008	18/03/2017	13:31:00	Snipe	1		PB2, (Upland blanket bog) Flushed/alarm calls	AR
SN009	14/10/2017	10:59:00	Snipe	1		Upland blanket bog, Flushed, Alarm calls	AR
SN0010	16/12/2017	11:30:00	Snipe	1		PB2, (Upland blanket bog) Flushed	AR
SN0011	17/12/2017	10:20:00	Snipe	1		HH3 (Wet Heath)	AR
SN0012	27/01/2018	10:15:00	Snipe	1		PB2, (Upland blanket bog) Flushed, Alarm Calls	AR
SN0015	28/01/2018	10:51:00	Snipe	1		Flushed	AR
SN0013	01/03/2018	12:00:00	Snipe	1		PB2, (Upland blanket bog) Flushed by surveyor	AR
SN0014	02/03/2018	12:00:00	Snipe	1		PB2, (Upland blanket bog) Flushed, Calling	AR
SN0015	10/10/2018	14:48:00	Snipe	1		Flushed from upland bog	RW
SN0016	29/10/2018	11:12:00	Snipe	1		Flushed from upland bog	RW
SN0017	29/10/2018	11:38:00	Snipe	1		Flushed from upland bog	RW
SN0018	29/10/2018	16:05:00	Snipe	1		Flushed from upland bog	RW
SN0019	06/12/2018	13:20:00	Snipe	2		Flushed	AOD
SN0020	14/02/2019	13:03:00	Snipe	1		Flushed from underfoot	AOD

Wildfowl Distribution Surveys								
Date	Location	Location Code	Species	No. of birds	Activity Code	Habitat	Notes on habitat and activity	Surveyor
29/08/2017	Banket Nook		Snipe	17	AW	MW2, (Sea inlets and bays)	Above Water	AOD
16/09/2017	Blanket Nook		Snipe	2	F	MW2, (Sea inlets and bays)	Flying	AOD
01/02/2018	Lough Fionn		Snipe	1	F	FL2, (Acid oligotrophic lakes)	Flying	AOD
19/02/2018	Lough Fionn		Snipe	2	F	FL2, (Acid oligotrophic lakes)	Flying	AOD
28/04/2018	Lough Turk / Fullerton Dam		Snipe	1	AW	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	ND
09/05/2018	Lough Turk / Fullerton Dam		Snipe	1	AW	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	FL7, (Reservoirs) PB2, (Upland blanket bog) GS4, (Wet grassland)	ND
18/12/2018	Owenkillew river		Snipe	1	F	Flushed	Flying	AOD

Incidental Observation						
Date	Survey Type	Location	Species	No. of Birds		Notes
20/07/2019	Breeding Raptor	Snipe	2	GS4 (Wet grassland) Calling SW Side of Lough Turk (55.1677062, -7.3157679)		JB
13/10/2016	On route to area 2 of HH survey	Snipe	3	flushed from vegetation by observer		AR
19/10/2016	During HH survey at VP 2	Snipe	5	5 Snipe seen and heard. 2 flushed.		AR
28/10/2016	Area 4 of HH SURVEY	Snipe	3	Heard calling		AR
29/10/2016	Area 5 of HH SURVEY	Snipe	1	Calling		AR
31/10/2016	Waterfowl Survey	Snipe	1			AR
06/11/2016	Leaving VP 3	Snipe	2	flushed from vegetation by observer		AR
07/11/2016	During HH survey at Area 1	Snipe	1	Calling		AR
07/11/2016	During HH survey at Area 1	Snipe	1	Flushed		AR
28/11/2016	During HH survey at Area 5	Snipe	2	Coming into roost		AR
10/12/2016	During HH roost survey	Snipe	3	Coming into roost, heard calling		AR
09/01/2017	Waterfowl Survey	Snipe				AR

Incidental Observation					
Date	Survey Type	Location	Species	No. of Birds	Notes
10/01/2017	During HH dusk survey	Snipe		Off-site	AR
24/01/2017	During HH dusk survey	Snipe		Flushed from vegetation	AR
24/01/2017	During HH dusk survey	Snipe		Flushed from vegetation	AR
11/02/2017	On approach to VP 3	Snipe	2	2 flushed from vegetation during approach to VP 3	AR
17/02/2017	During HH dusk survey	Snipe	2	2 flushed from vegetation	AR
18/02/2017	On route to vp6	Snipe	1	1 flushed from vegetation	AR
12/03/2017	During HH roost survey	Snipe		2 flushed from vegetation	AR
20/03/2017	During HH roost survey	Snipe	1	Flushed from vegetation	AR
18/06/2017	Breeding Raptor Survey	Snipe	1	Agitated behaviour or anxiety calls; Probable breeding	AR
08/07/2017	Breeding Raptor Survey	Snipe	1	Agitated behaviour or anxiety calls; Probable breeding	AR
13/10/2017	HH Roost Survey	Snipe	1	Flushed on route to site	AR
21/10/2017	HH Roost Survey	Snipe	1	Flushed	AR
29/11/2017	Vantage Point	Snipe	1	Flushed near VP	AOD
15/12/2017	HH Roost Survey	Snipe	1		AR
29/12/2017	HH Roost Survey	Snipe			AR
27/01/2018	During HH roost survey	snipe		flushed	AR
23/03/2018	HH Roost	Snipe	1		AR
10/04/2018	Breeding Raptor Survey	Snipe	3	GS4, (Wet grassland) flying, flushed offsite call	AOD
10/04/2018	Breeding Raptor Survey	Snipe	1	GS4, (Wet grassland) flying, flushed offsite call	AOD
10/04/2018	Breeding Raptor Survey	Snipe	2	PB2, (Upland blanket bog) flying, flushed offsite call	AOD
12/04/2018	Breeding Raptor Survey	Snipe	1	PB2, (Upland blanket bog) flushed then drumming for 60s	AOD
22/05/2018	Breeding Raptor Survey	Snipe	1	Heard drumming over bog. No Flightline.	JOS
01/06/2018	Breeding Raptor Survey	Snipe	1	Calling north side of reservoir. Flying post to post on GS4	AOD
05/06/2018	Breeding Raptor Survey	Snipe	1	PB2, (Upland blanket bog) drumming near site boundary PB2	AOD
10/07/2018	Breeding Raptor Survey	Snipe	1	PB2, (Upland blanket bog) Chipping N. side of reservoir	AOD

Incidental Observation					
Date	Survey Type	Location	Species	No. of Birds	Notes
19/11/2018	VP5	Snipe	2	Calling near VP5	AOD
22/11/2018	VP2	Snipe	3	Flushed near VP	AOD
27/11/2018	VP3	Snipe	1	Flushed near VP	AOD
27/11/2018	HHVP2	Snipe	1	Flushed at HHVP	AOD
28/11/2018	VP4	Snipe	3	Flushed near VP	AOD
29/11/2018	VP4	Snipe	1	Flushed at VP	AOD
19/12/2018	VP4	Snipe	2	Flushed near VP	AOD
22/12/2018	VP6	Snipe	1	Flushed on way to VP	AOD
09/01/2019	VP5	Snipe	1	Flushed leaving VP	AOD
15/01/2019	VP2	Snipe	2	Flushed leaving VP	AOD
19/01/2019	HHVP6	Snipe	1	Flushed near HHVP	AOD
23/01/2019	VP5	Snipe	2	Calling at VP	AOD
28/01/2019	VP6	Snipe	2	Flushed leaving VP	AOD
31/01/2019	VP4	Snipe	1	Calling near VP	AOD
17/02/2019	HHVP2	Snipe	1	Flushed	AOD
20/02/2019	HHVP	Snipe	2	Calling	AOD
21/02/2019	Red Grouse Survey T2	Snipe	1		JC
28/02/2019	VP4	Snipe	2	Calling	AOD
26/03/2019	VP3	Snipe	2	Chipping 6:40	AOD
27/03/2019	VP4	Snipe	1	Drumming near VP 6:03	AOD
28/03/2019	VP6	Snipe	2	Chipping on site 6:34	AOD
29/03/2019	VP2	Snipe	1	Drumming near VP off site 6:01	AOD



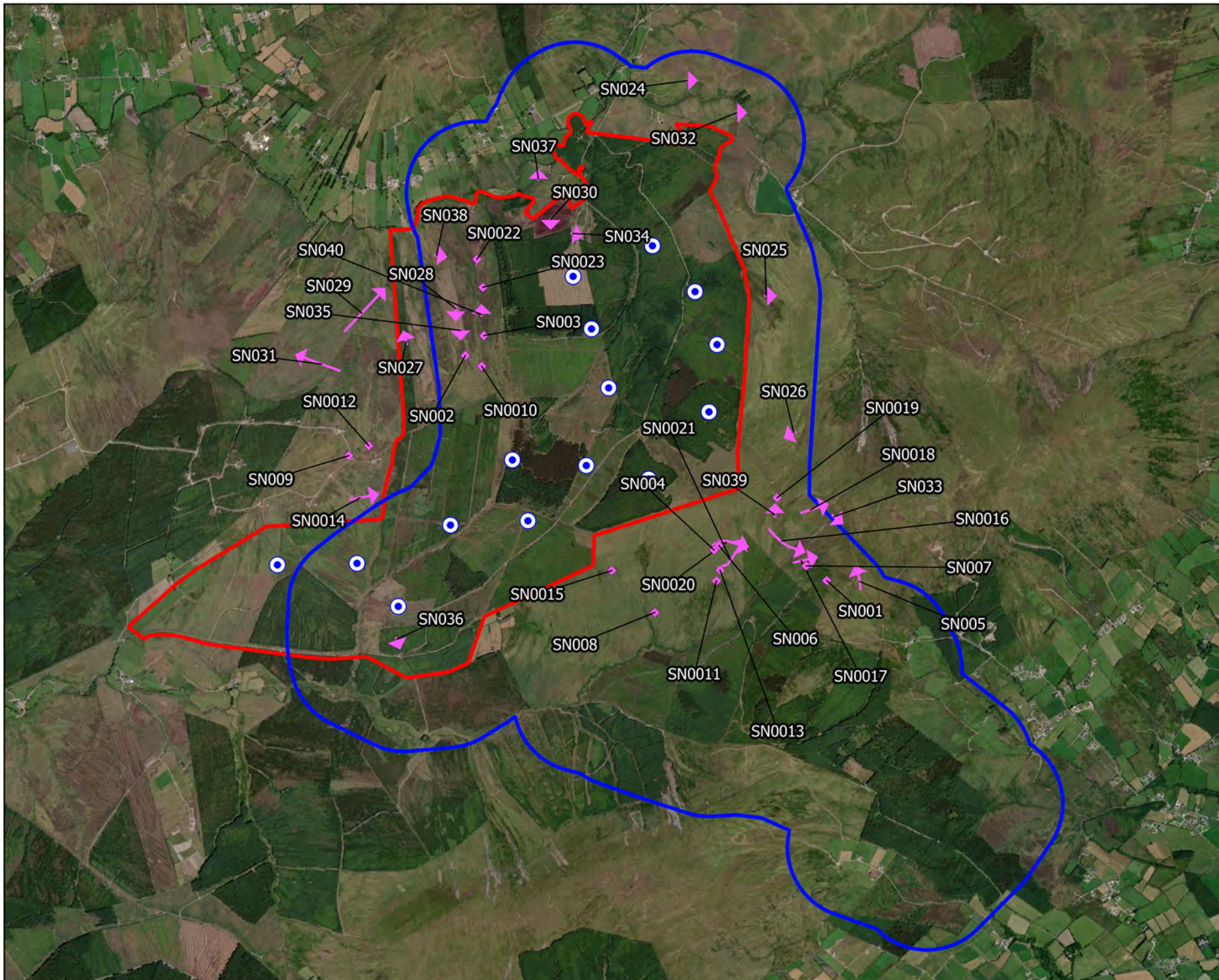
Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title	
Snipe Observations Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.18
Scale	Date
1:25000	10/11/2021
MKO Planning and Environmental Consultants <small> Tuam Road, Galway Ireland, H91 VV84 +353 (0) 91 735611 email: info@mkoireland.ie Website: www.mkoireland.ie </small>	

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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observation
- Flightline



Drawing Title
**Snipe Observations
 Breeding Walkover Surveys**

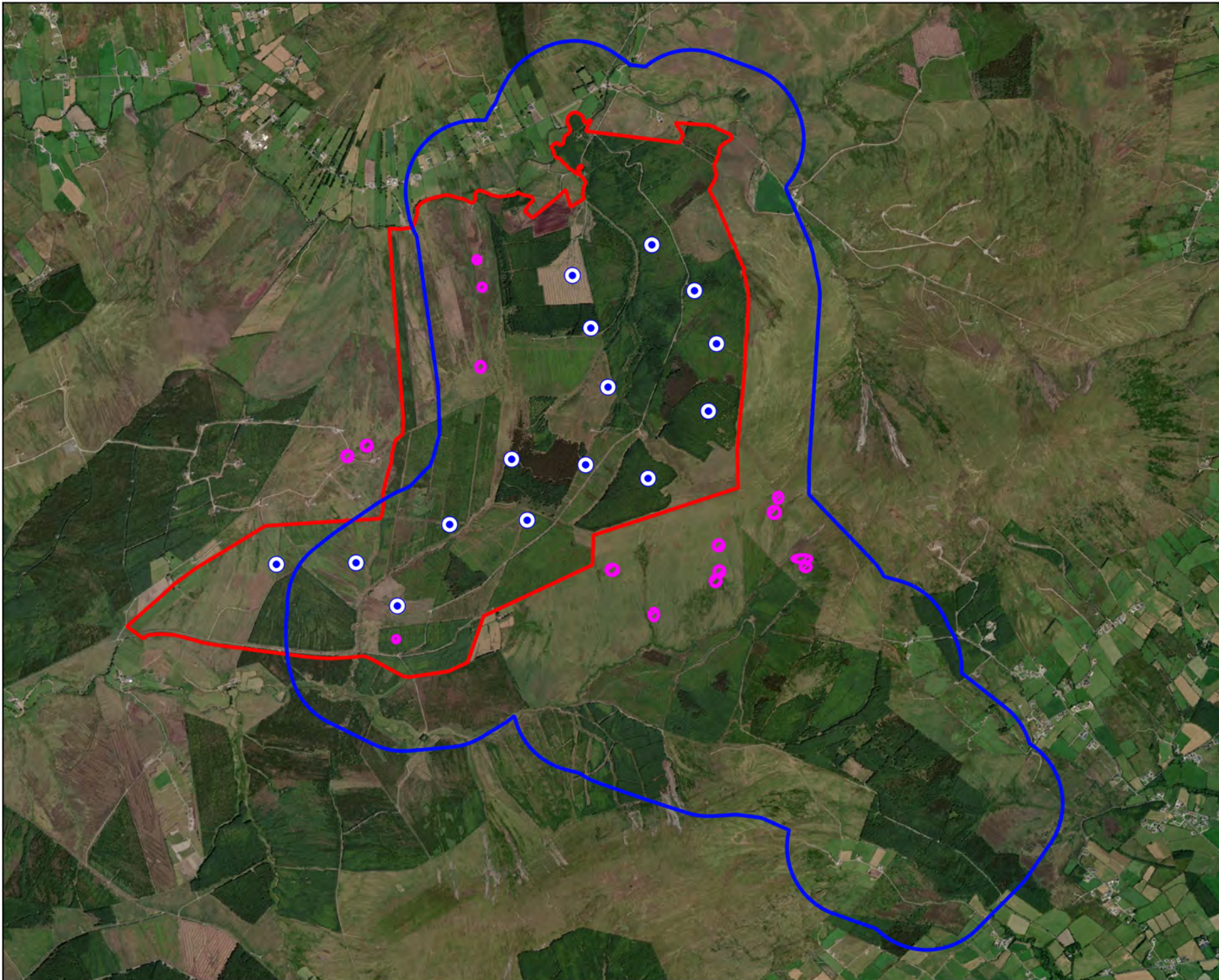
Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.3.8
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Scale 1:35000	Date 10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Territory



Drawing Title

Snipe Territories
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.3.8.1

Scale

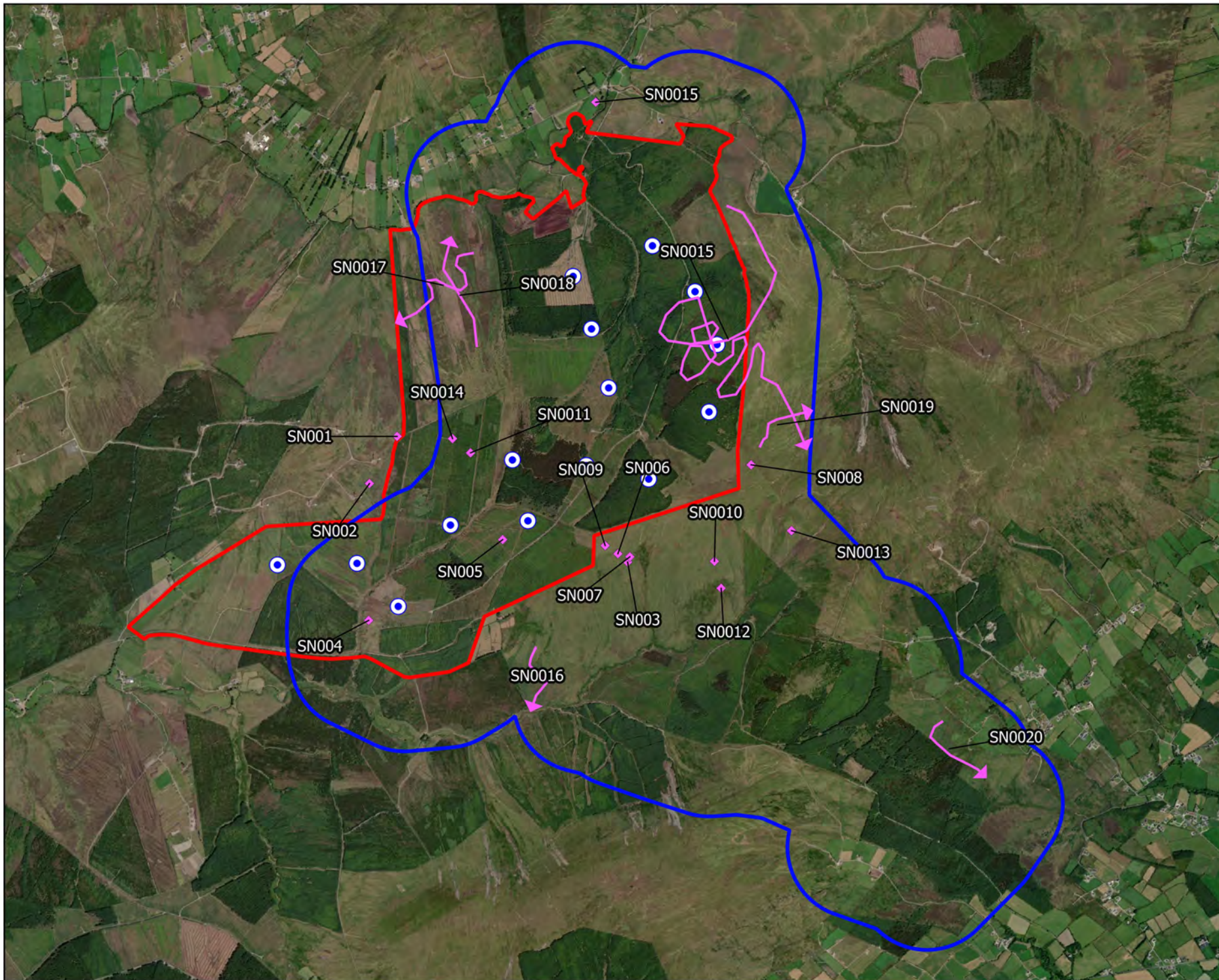
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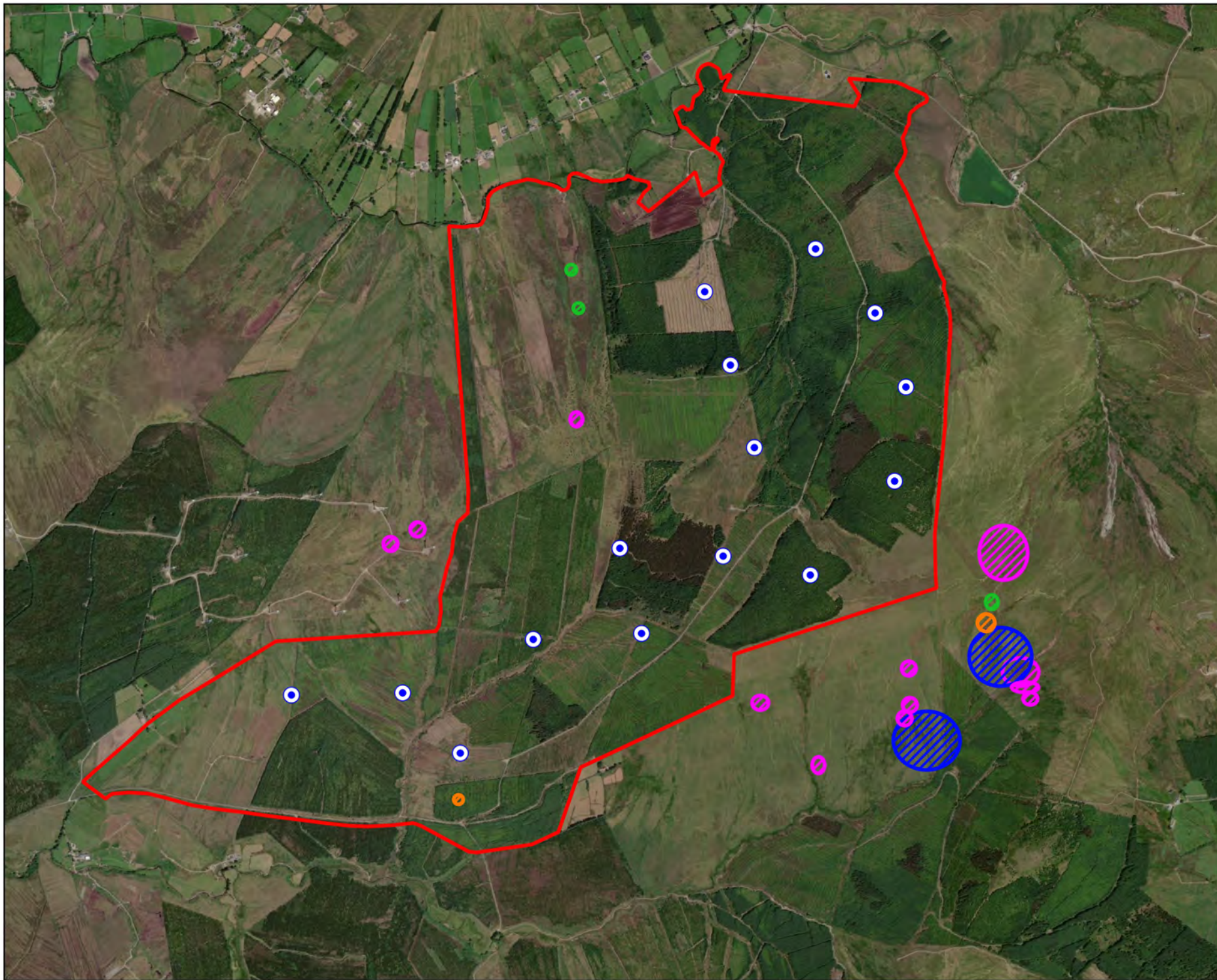
Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline
- ◆ Observations

Drawing Title Snipe Observations Winter Walkover Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.5.10
Scale 1:35000	Date 10/11/2021


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Map Legend

 Wind Farm Site

 Turbine Layout

Snipe Territories

 2017

 2018

 2019

 2021



Drawing Title

Snipe Territories

Project Title

Glenard Windfarm

Drawn By	Checked By
Patrick Manley	Padraig Cregg

Project No.	Drawing No.
190114	Figure 7.12.2

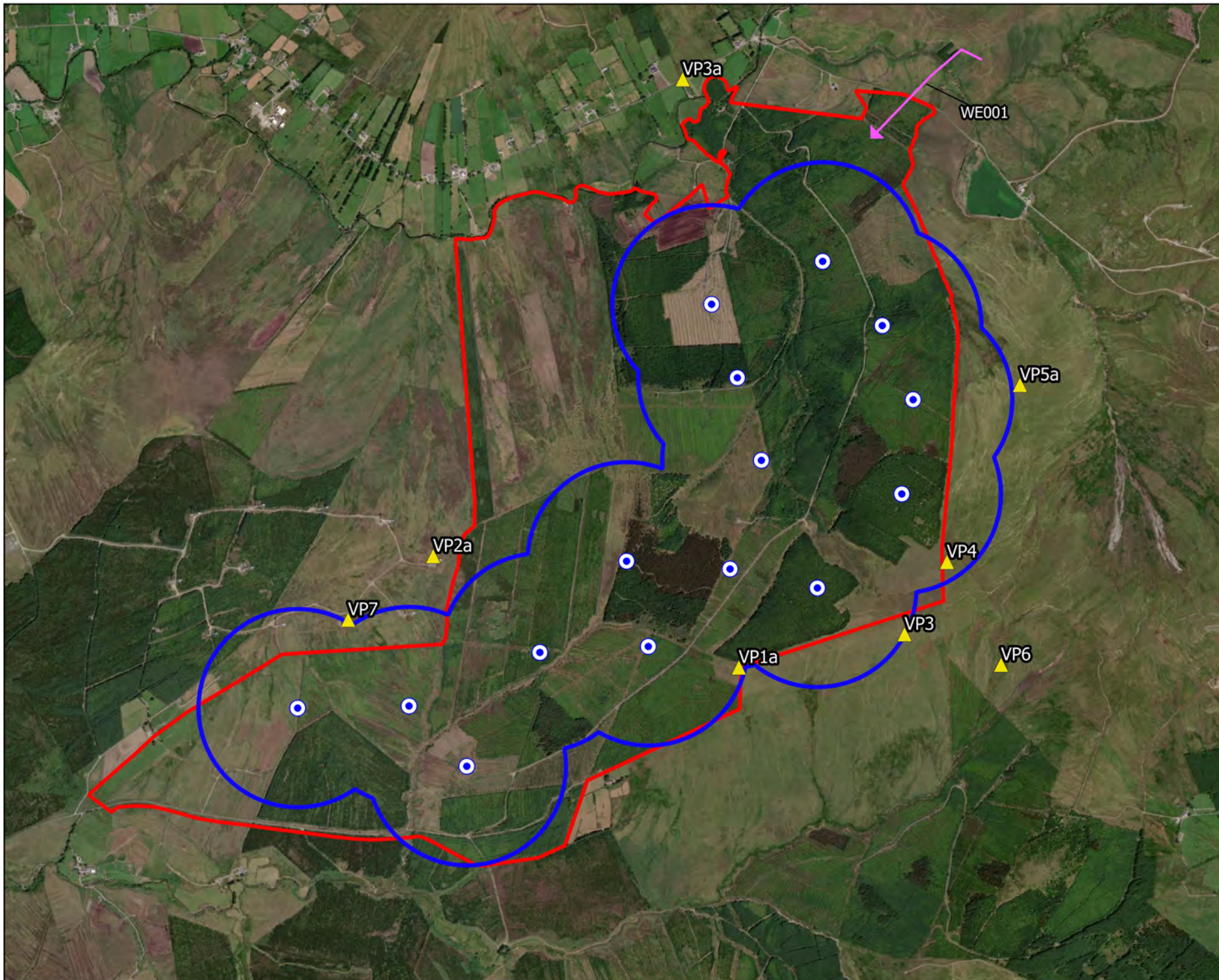
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Table 22 White-tailed Eagle Survey Data

Vantage Point Surveys												
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 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
WE001	18/09/2018	VP5a	White-tailed Eagle	1	12:48:00	20	20			WD4, (Conifer plantation) GS4, (Wet grassland) Flying low near sheep just off site. Unable to age no tags	Recorded as part of VP even though just after	AOD

Incidental Observation						
Date	Survey Type	Location	Species	No. of Birds		Notes
05/03/2021	HH Roost; HHVP1	White-tailed Eagle	1	PB1, (Raised bog) GA, (Improved grassland) Flew over road in southerly direction towards Crockaheeny, moved easterly towards Eddie Fulleron Dam Reservoir. Mobbed by HC. 3 BZ agitated by its presence. Adult Female		MM



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight



Drawing Title

White-tailed Eagle Obs.
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.19

Scale

1:25000

Date

10/11/2021



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Table 23 Woodcock Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
WK001	26/11/2016	VP5a	Woodcock	1	13:12:00	16	8	8	0	WD4, (Conifer plantation) In flight	Emerged from plantation changing flight path away from observer	AR
WK002	13/12/2016	VP4	Woodcock	1	12:03:00	13	8	5	0	WD4, (Conifer plantation) In flight through ride	Individual observed in flight emerging from forest break, moving direction away from observer	AR
WK003	28/11/2017	VP1a	Woodcock	1	15:27:00	15	15			Mixed broadleaved/conifer woodland WD4, (Conifer plantation) PB2, (Upland blanket bog) Flushed near VP over treetops		AOD
WK004	28/01/2019	VP6	Woodcock	2	17:39:00	8	4			WD4, (Conifer plantation) GS4, (Wet grassland) 2 birds flew from forest		AOD

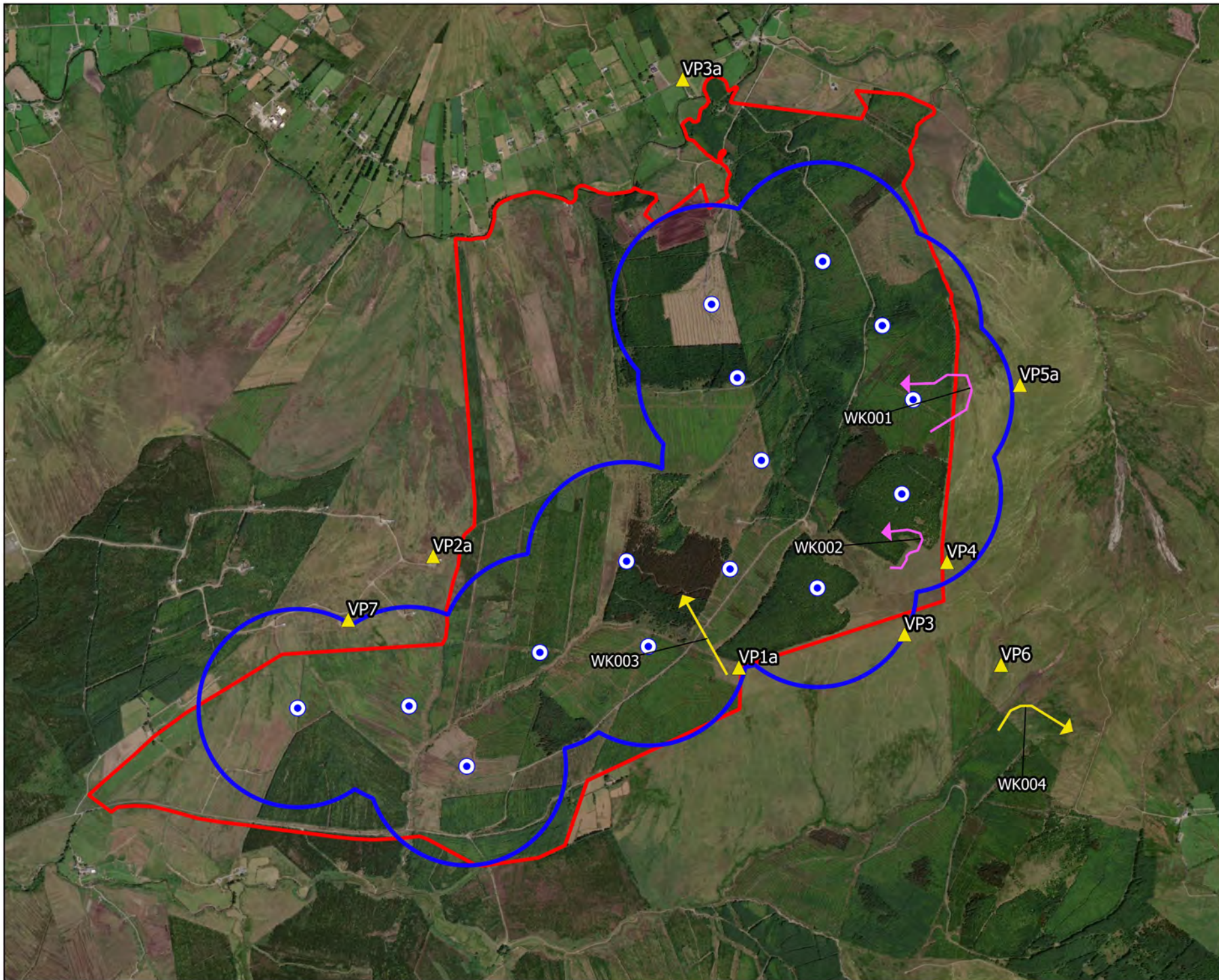
Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
WK001	22/01/2017	10:47	Woodcock	1		WD4, (Conifer plantation) Feeding along forest edge	AR

Migration Vantage Point Surveys							
Map Ref.	Date	VP	Species	No. of birds	Notes on habitat and activity	Comments	Surveyor
No Flight Available	28/02/2017	Migration VP	Woodcock	1	WD4, (Conifer plantation) Travelling		TR

Breeding Woodcock Surveys							
Map Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK001	T1	29/05/2021	22:19	Woodcock	1	conifer plantation and scrub, roding male	DM

Incidental Observations							
Date	Survey Type	Species	No. of Birds	Notes			Surveyor
11/10/2016	Close to VP1 Glenard	Woodcock	1	Flew through woodland and landed in area of rank vegetation			AR
05/11/2016	Forest track to Glenard	Woodcock	1	Seen on route to VP1			AR
06/11/2016	Glenard entrance	Woodcock	1	On route to VP			AR
19/11/2016	Leaving VP 6	Woodcock	1	Flushed from vegetation by observer			AR
20/11/2016	On forestry track leaving VP 4	Woodcock	5	On track and vegetation either side, flew when approached by car			AR
06/12/2016	On approach to vp3	Woodcock	1	Flushed from vegetation in forest break			AR
10/12/2016	During HH roost survey	Woodcock	1	Along forest track			AR
17/02/2017	On exiting Glenard site	Woodcock	4	4 observed feeding along forest road when exiting site			AR
23/02/2017	On route to Area 5 for HH survey	Woodcock		Feeding along forest road			AR
04/03/2017	Leaving site after VP1	Woodcock		Feeding along forest track			AR
28/11/2017	Vantage Point	Woodcock	1	Flushed near VP			AOD
02/01/2018	VP Survey	Woodcock	5	5 woodcock individuals were flushed along the forestry access track as the observer drove through to get to the VP			CMc

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
02/01/2018	VP Survey	Woodcock	2	2 woodcock individuals were flushed along the forestry access track as the observer drove out after VP watch	CMc
03/01/2018	VP Survey	Woodcock	5	5 woodcock individuals were flushed along the forestry access track as the observer drove through to get to the VP	CMc
23/02/2018	HHVP4	Woodcock	1	flew overhead on way back from HHVP	KB
27/11/2018	VP access track on site	Woodcock	2	On way into site	AOD
28/11/2018	VP access track on site	Woodcock	2	Flushed on way into site	AOD
30/11/2018	VP6	Woodcock	1	Flushed near VP	AOD
11/12/2018	VP track on site	Woodcock	4	Flushed on site track	AOD
12/12/2018	VP track on site	Woodcock	5	Flushed on site track	AOD
13/12/2018	VP track on site	Woodcock	3	Flushed on site track	AOD
18/12/2018	HHVP4	Woodcock	1	Flew low at HHVP at 16:42	AOD
21/12/2018	VP3	Woodcock	4	Flushed on site track	AOD
22/12/2018	VP6	Woodcock	1	Flew near VP	AOD
29/01/2019	VP1	Woodcock	2	Flushed on access track	AOD
26/02/2019	VP track on site	Woodcock	1	Flushed	AOD
27/02/2019	VP track on site	Woodcock	2	Flushed	AOD
15/03/2019	VP track on site	Woodcock	4	Flushed on entry	AOD
10/04/2019	VP Survey VP1	Woodcock	1	Put up on route to VP1a from undergrowth. Possibly overwintering migrant	ND



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- ↶ PCH Flight
- ↶ Non-PCH Flight



Drawing Title
**Woodcock Observations
Vantage Point Surveys**

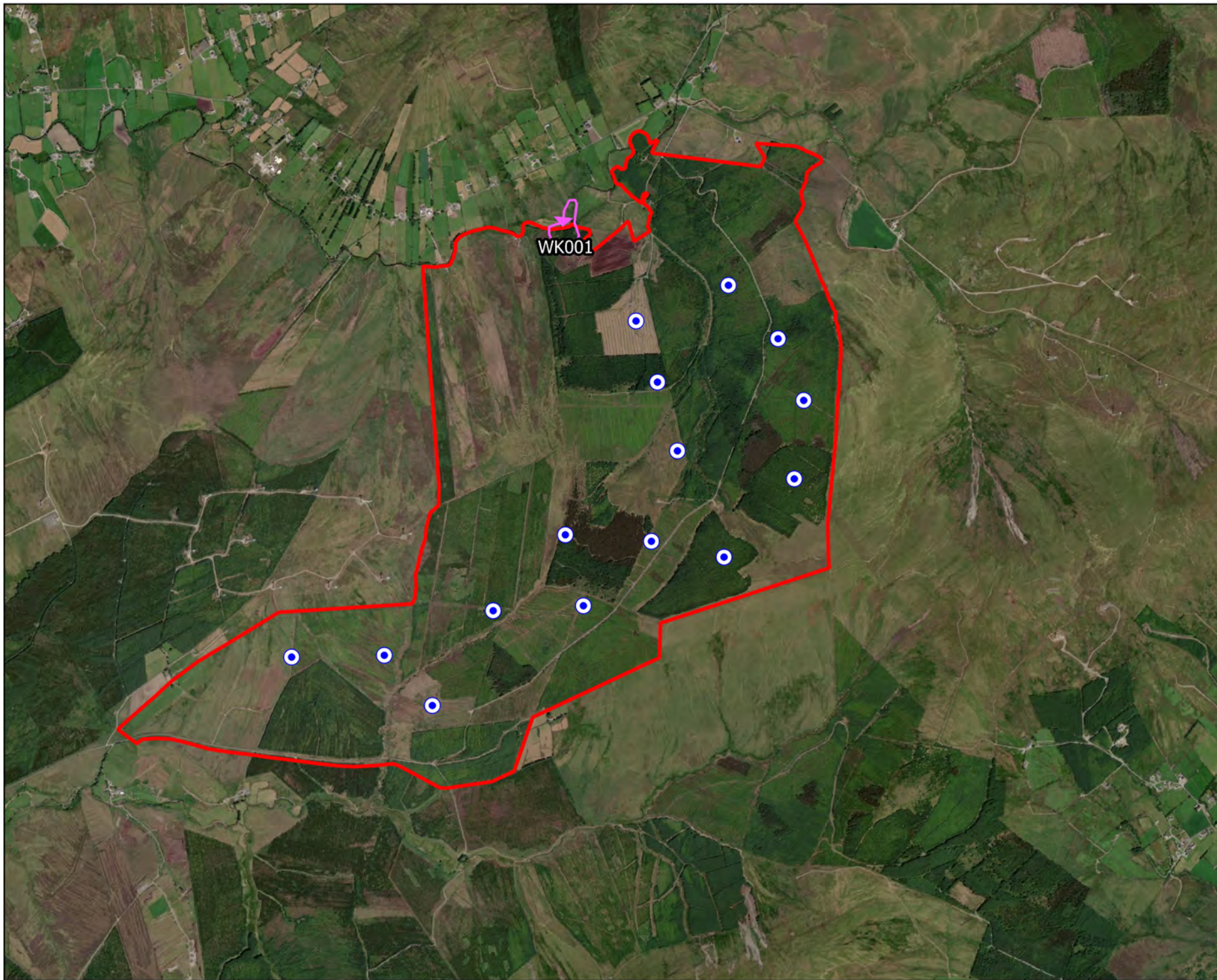
Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.20
Scale 1:25000	Date 10/11/2021






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Map Legend

-  Wind Farm Site
-  Turbine Layout
-  Flightline

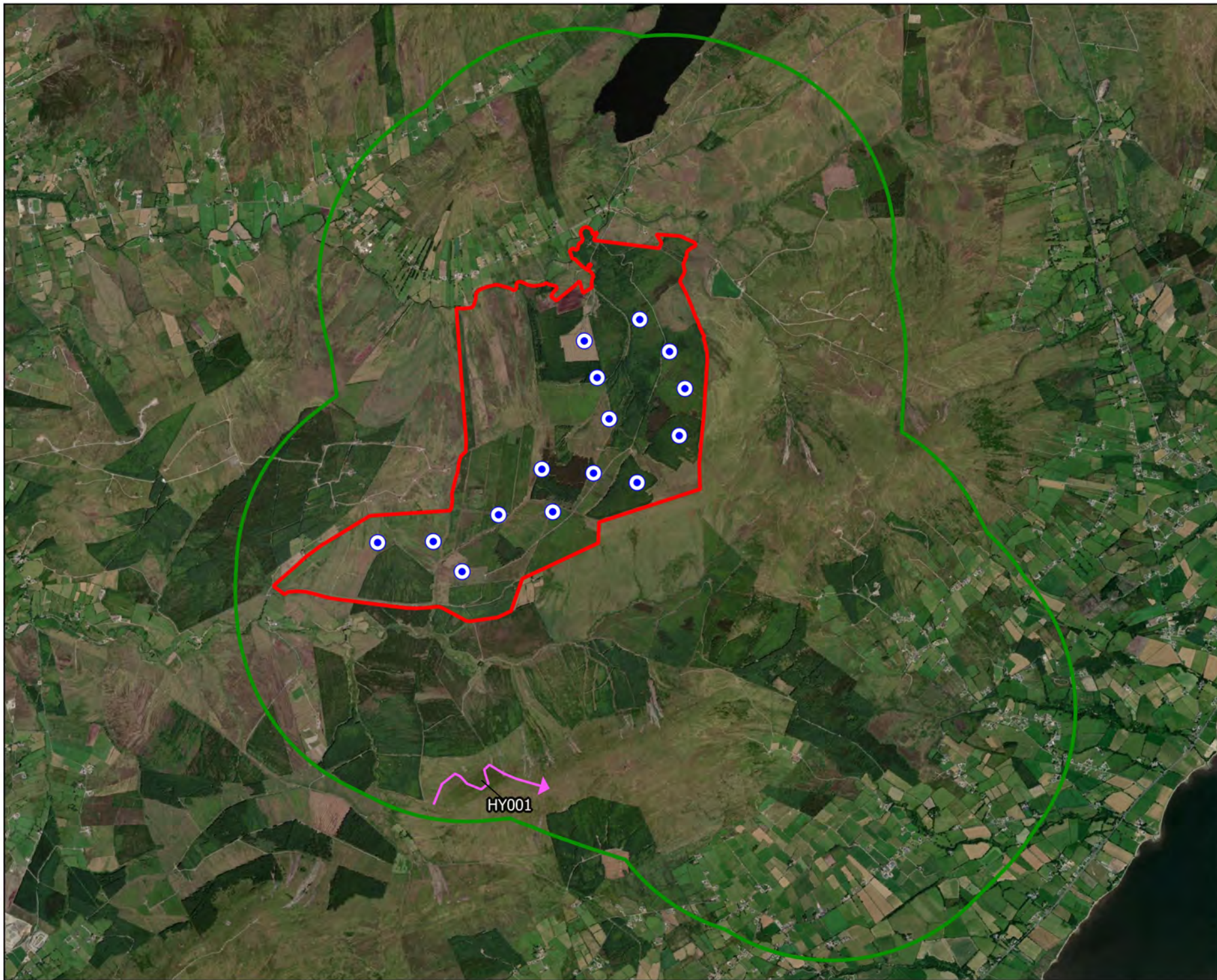


Drawing Title	
Woodcock Survey Observations	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.11.1
Scale	Date
1:30000	10/11/2021
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Table 24 Hobby Survey Data

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
HY001	20/07/2019	11:31:00	Hobby	1	HH1, (Dry siliceous heath) HH3, (Wet heath) Hobby, seen 200m to W flew towards VP then around overhead, then away over mountain top zone to E.	ID by red tarsal feathers, bold markings, size, flight and attitude	ND



Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline



Drawing Title

Hobby Observations
Breeding Raptor Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.4.5

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1:50000

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Table 25 Buzzard Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ001	08/10/2016	VP1a	Buzzard	2	10:55:00	211	15	196	0	PB2, (Upland blanket bog) HH3, (Wet heath) Hunting. Pair negotiating wind patterns, circling site a number of times		AR
BZ002	15/10/2016	VP5a	Buzzard	1	08:56:00	34	0	34	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting over S of site.		AR
BZ003	15/10/2016	VP5a	Buzzard	1	12:05:00	60	0	60	0	HH3, (Wet heath) WD4, (Conifer plantation) Travelling/hunting over site.		AR
BZ004	22/10/2016	VP2a	Buzzard	1	08:41:00	35	6	29	0	WL2, (Treelines) PF2, (Poor fen and flush) Travelling through site	Landing in treeline	AR
BZ005	22/10/2016	VP2a	Buzzard	1	11:30:00	250	0	250	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) PB2, (Upland blanket bog) Hunting. Circling site	Circling a number of times over site and around nearby turbines	AR
BZ006	30/10/2016	VP6	Buzzard	1	08:31:00	61	15	46	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting over heathland		AR
BZ007	30/10/2016	VP6	Buzzard	2	12:05:00	41	0	41	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Mobbed by RN		AR
BZ008	05/11/2016	VP1a	Buzzard	1	12:40:00	41	0	41	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting offsite		AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ009	05/11/2016	VP1a	Buzzard	1	17:30:00	52	0	52	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting	Hunting over clear-fell forestry	AR
BZ0010	06/11/2016	VP3	Buzzard	1	13:50:00	44	0	44	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Hunting	Mobbed by RN	AR
BZ0011	19/11/2016	VP6	Buzzard	1	13:20:00	38	0	38	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) PB2, (Upland blanket bog) Hunting	Hunting over site, mobbed by RN	AR
BZ0012	26/11/2016	VP5a	Buzzard	1	11:41:00	80	0	80	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting	Hunting over clear-fell forestry to the west of the site	AR
BZ0013	26/11/2016	VP5a	Buzzard	2	16:01:00	20	4	16	0	PB2, (Upland blanket bog) HH3, (Wet heath) Hunting	Hunting over dense vegetation along site boundary	AR
BZ0014	11/12/2016	VP2a	Buzzard	1	09:36:00	41		41		HH3, (Wet heath) WD4, (Conifer plantation) Hunting	Observed hunting over dense vegetation, circling once within PCH	AR
BZ0015	15/12/2016	VP5a	Buzzard	1	08:51:00	55	0	55	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting	Hunting over area of clear-fell within PCH	AR
BZ0016	15/12/2016	VP5a	Buzzard	1	11:45:00	70	20	50	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Circling over rank vegetation before descending below PCH for a time over young forestry	AR
BZ0017	08/01/2017	VP1a	Buzzard	1	16:05:00	61	0	61	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Soaring/hunting over glen within PCH, circling once.	AR
BZ0018	16/01/2017	VP4	Buzzard	1	14:44:00	62	15	47	0	WD4, (Conifer plantation) Hunting/mobbed	Hunting over site entering PCH. Mobbed by RN for 35 seconds before moving on	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0019	21/01/2017	VP2a	Buzzard	1	14:58:00	71	32	39	0	HH3, (Wet heath) Hunting	Adult male observed hunting offsite over Sorne Hill. Hovering in the wind.	AR
BZ0020	21/01/2017	VP2a	Buzzard	1	15:31:00	65	0	65	0	WD4, (Conifer plantation) HH3, (Wet heath) Travelling over site	Travelling SW over site within PCH	AR
BZ0021	04/02/2017	VP5a	Buzzard	1	11:42:00	56	0	56	0	PB2, (Upland blanket bog) HH3, (Wet heath) Soaring over site	In flight north east over northern end of site within PCH	AR
BZ0022	05/02/2017	VP1a	Buzzard	1	13:48:00	83	0	83	0	WS5, (Recently felled woodland) WD4, (Conifer plantation) Hunting	Hunting over the SW of site. Circling 3 times but moved off as it was being mobbed by RN	AR
BZ0023	11/02/2017	VP3	Buzzard	1	11:35:00	27	0	27	0	WD4, (Conifer plantation) Hunting	Hunting over site for a short time before moving off. Calling	AR
BZ0024	18/02/2017	VP6	Buzzard	1	12:21:00	37	0	37	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Hunting over vegetation at the bottom of glen moving uphill gradually	AR
BZ0025	25/02/2017	VP2a	Buzzard	1	10:44:00	65	0	65	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Hunting over Sorne Hill within PCH. Circling twice. Flying behind hill out of sight after 65 seconds.	AR
BZ00111	04/03/2017	VP1	Buzzard	1	15:05:00	72	32	40	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Individual seen in flight circling once within PCH. Flew east over site before perching in spruce plot.	AR
BZ00112	05/03/2017	VP5	Buzzard	1	15:31:00	45	0	0	45	PB2, (Upland blanket bog) HH3, (Wet heath) In flight	Individual soaring at height NW of site.	AR
BZ00113	05/03/2017	VP5	Buzzard	1	17:12:00	72	0	72	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting	Observed hunting over clear-fell. Flying SW over site.	AR
BZ00114	11/03/2017	VP3	Buzzard	2	15:23:00	355	0	355	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) In flight	Male and female in flight circling over site boundary. Heard calling for a period once out of sight.	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00115	11/03/2017	VP3	Buzzard	1	16:37:00	47	0	47	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Hunting over young plantation. Chased off by RN.	AR
BZ00116	19/03/2017	VP2	Buzzard	2	14:21:00	216	0	216	0	WD4, (Conifer plantation) Hunting/Territorial	Male and female circling site. Territorial activity against HC.	AR
BZ00117	19/03/2017	VP2	Buzzard	3	14:47:00	45	0	0	45	PB2, (Upland blanket bog) In flight	3 observed at height flying towards Iskaheen.	AR
BZ00118	19/03/2017	VP2	Buzzard	1	16:24:00	59	0	59	0	WS5, (Recently felled woodland) In flight	Circling over clear-fell before flying SW.	AR
BZ0026	29/03/2017	VP4	Buzzard	1	15:49:00	52	10	42	0	WS5, (Recently felled woodland) WD4, (Conifer plantation) Hunting	In flight, circling over area of clear-fell. Calling.	AR
BZ0027	29/03/2017	VP4	Buzzard	1	19:21:00	25	25	0	0	PB2, (Upland blanket bog) In flight	Flying low over ground north along site boundary	AR
BZ0028	31/03/2017	VP6	Buzzard	1	18:20:00	131	0	131	0	PB2, (Upland blanket bog) WS5, (Recently felled woodland) WD4, (Conifer plantation) Hunting	Hunting, circling over clear-fell and vegetation around vp1 within PCH.	AR
BZ0029	31/03/2017	VP6	Buzzard	1	18:41:00	53	10	43	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) In flight	Flying SW over the site rising over treeline out of sight	AR
BZ0030	26/04/2017	VP2a	Buzzard	1	11:50:00	444		444		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Buzzard observed quartering the ground habitats, possibly for prey opportunities and/or territorial; during which female Kestrel also seen in flight having emerged from young conifer plantation and scrub; engaged in a parallel soaring pattern of flying coincident with Buzzard. Lost visual contact subsequently.	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0031	26/04/2017	VP2a	Buzzard	1	12:36:00	324	0	290	34	WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Buzzard observed flying from SE; surveying terrain below and quartering the ground habitats possibly for prey opportunities and/or territorial; flying higher to soaring height as moved north, then returned south and away out of view to SE.	ND
BZ0032	26/04/2017	VP2a	Buzzard	1	12:47:00	652	252	400		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Buzzard flew into view over skyline, quartering habitat below for prey opportunities, slowly flying and circling. Employed hover hunting technique (like Kestrel) making a number of stoops to ground / strikes at prey. After which resuming flight and flying over habitat again to a hovering height of 30m to 40m; this repeated.	ND
BZ0033	26/04/2017	VP2a	Buzzard	1	12:58:00	465	0	465		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Continuation of previous observation; Buzzard now beginning to circle over and along skyline, gradually increasing height range to 60m, then 80m and over; appearing no longer to be assiduously foraging, but more like a surveillance flight mode. Transpired that this was a response to appearance of another Buzzard flying high from the east. Two BZ circled in concert in close proximity, after which the second bird moved away to N and NE while	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
											first bird flew westward gradually while both still circling / soaring. Visual contact lost on first bird over conifer forest.	
BZ0034	26/04/2017	VP2a	Buzzard	1	13:01:00	324	0	290		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Buzzard seen in flight from east, at about 80m and circling higher while circling close to first BZ as mentioned above as per previous observation. Continued to fly northward over plantation forestry, circling and ascending. Finally becoming distant and very high, moving into >175m and higher. Noted that two Ravens also circling at a higher level above this Buzzard. This continued, all birds moving off-map and off-site to NE, high and distant. Finished observation at 13:18	ND
BZ0035	02/05/2017	VP1a	Buzzard	1	12:32:00	120	75	45	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flying	Buzzard flew low over young conifer plantation. Then ascending; flight erratic. Lost visual contact.	ND
BZ0036	02/05/2017	VP1a	Buzzard	1	12:43:00	50	10	40	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flying	Following last obs.; BZ seen again at height, making long gliding descent.	ND
BZ0037	02/05/2017	VP1a	Buzzard	1	12:54:00	180	0	180	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flying	Buzzard foraging 1km to south over Owenkillew River, forest edge habitats. Quartering terrain for prey opportunities, flying high at 80m over ground, hover hunting.	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0038	04/05/2017	VP3	Buzzard	1	09:41:00	171	0	171	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flying	Buzzard flew over ridge of Crockanure Hill, slow flight about 30m above terrain, making turns. Set on and chased / mobbed by Raven. Flew over ridge to S out of view	ND
BZ0039	04/05/2017	VP3	Buzzard	1	11:46:00	55	5	50	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) flying	Distant obs. of Buzzard. Soaring at >80 above ground, followed by gliding descent. Visual contact constrained at low flight level by obstruction by conifer forest cover	ND
BZ0040	04/05/2017	VP3	Buzzard	1	11:52:00	75	5	70	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) flying	Distant obs. of Buzzard. Probably same bird as last obs. Soaring at >80 above ground, followed by gliding descent. Visual contact constrained at low flight level by obstruction by conifer forest cover	ND
BZ0041	25/05/2017	VP6	Buzzard	1	20:08:00	1228	310	918	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) flying	BZ foraging by hovering and moving position, like K. Another BZ (maybe second of pair) also further away to west - see below. Height over terrain / slope varied with change in slope and topography from <25m to 40-50m	ND
BZ0042	25/05/2017	VP6	Buzzard	1	20:09:00	255	0	255	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) flying	BZ foraging by hovering and moving position, like K. 30 to 40m over terrain, distant, >2km to west, lost visual contact while also watching the first BZ (above)	ND
BZ0043	25/05/2017	VP6	Buzzard	1	21:50:00	78	78	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flying	BZ flew out slowly N/NE from forested habitat at 15m to 20m over ground. After 40 sec, was mobbed	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
											and chased southward by 2 RN, flew off south pursued by Ravens in descent southward over skyline	
BZ0044	14/06/2017	VP5a	Buzzard	2	14:05	180		120	60	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) flying	Two Buzzards mutually circling / soaring, at 125m over ground and ascending, >1.5km to S over peak area of Croacknacraaddy and Glackmore Hill. Circling, parallel flights and then dives; display behaviour. Lost visual contact finally due to distance and high flight against glare.	ND
BZ0046	22/06/2017	VP1a	Buzzard	1	10:40	300				WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Buzzard to SE over Glackmore Hill.	ND
BZ0047	22/06/2017	VP3	Buzzard	1	12:54	120				WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Buzzard to SE over Glackmore Hill.	ND
BZ0048	22/06/2017	VP3	Buzzard	1	13:44	375		375		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying		ND
BZ0049	22/06/2017	VP3	Buzzard	1	13:47	255		255		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying		ND
BZ0050	26/06/2017	VP4	Buzzard	1	17:58	248		248		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Buzzard foraging 1.5km to south-east over Crocakanure Hill and open ground, at 40m over ground, hover hunting.	ND
BZ0051	30/06/2017	VP6	Buzzard	1	17:32	204	204			WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Buzzard flew low, slowly, over conifer plantation among trees, NE over open ground, 15 to 20m above	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
											ground. Then ascending, circling and over crest of hill to S / SE; Lost visual contact.	
BZ0052	30/06/2017	VP6	Buzzard	1	17:40	355	40	315		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Just a minute or two after last observation, Buzzard (seemingly same bird) re-appeared over Crockanure Hill, quartering terrain slowly, hovering or stationary at times, finally flew lines up and down slope between clumps of tall conifers on slope culminating in drop down and rapid descent to ground. Unclear if a foraging strike attempt or associated with nest/fledglings possibility. Not seen emerging from this spot, though visual contact was partially obscured by trees etc	ND
BZ0053	30/06/2017	VP6	Buzzard	1	17:48	125	50	75		WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) flying	Almost a repeat of last observation of Buzzard, culminating in rapid descent among clumps of tall conifers.	ND
BZ0054	18/07/2017	VP6	Buzzard	1	12:32:00	727		727		WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting		PM
BZ0055	25/07/2017	VP2a	Buzzard	1	10:06:00	261			261	WD4, (Conifer plantation) PB2, (Upland blanket bog) Soaring		PM
BZ0056	04/08/2017	VP3	Buzzard	1	09:31:00	135	0	135	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Female hunting over Meenyany. Flying off south.	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0057	04/08/2017	VP3	Buzzard	1	09:48:00	50	0	50	0	WD4, (Conifer plantation) WD4, (Conifer plantation) Hunting	Hunting over vp1. Lost view behind conifers.	AR
BZ0058	05/08/2017	VP6	Buzzard	1	08:20:00	62	62	0	0	PB2, (Upland blanket bog) Perched	Perched on telegraph pole. Flying west shortly after.	AR
BZ0059	12/08/2017	VP2a	Buzzard	1	11:05:00	72	15	57	0	WD4, (Conifer plantation) HH3, (Wet heath) Hunting	Hunting over Meenyanly SW of site.	AR
BZ0060	17/08/2017	VP1a	Buzzard	2	09:41:00	155	0	155	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Pair hunting over Meenyanly. Calling. Flew behind tree cover in the glen.	AR
BZ0061	09/09/2017	VP2a	Buzzard	1	16:30:00	82	0	82	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Male adult bird hunting offsite over heather. Flew west in PCH.	AR
BZ0062	15/09/2017	VP4	Buzzard	1	17:44:00	39	0	39	0	PB2, (Upland blanket bog) In flight	Adult calling/in flight SE offsite. Mobbed by HC.	AR
BZ0063	29/09/2017	VP3	Buzzard	1	16:18:00	122	0	122	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Adult hunting over site in PCH. Circling/calling throughout. Flying SW out of view.	AR
BZ0064	30/09/2017	VP6	Buzzard	1	18:01:00	35	0	35	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) In flight	Adult observed for a short time in flight. Travelling SE behind Crockanure Hill.	AR
BZ0065	12/10/2017	VP3	Buzzard	1	11:31:00	47	0	47	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Heard calling previously. Emerged over Meenyanly. Flying north over site.	AR
BZ0066	17/10/2017	VP4	Buzzard	1	11:25:00	91	0	91	0	PB2, (Upland blanket bog) In flight	In flight offsite within PCH. Flying south. Moving west over VP3.	AR
BZ0067	17/10/2017	VP4	Buzzard	1	12:15:00	101	0	101	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Emerged over forestry. Hunting/calling. Staying within PCH. Flew out of view.	AR
BZ0068	27/10/2017	VP2a	Buzzard	1	07:59:00	81	0	81	0	HH3, (Wet heath) WD4, (Conifer plantation) Hunting	Hunting over NW corner of site	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0069	27/10/2017	VP2a	Buzzard	1	09:30:00	55	0	55	0	WD4, (Conifer plantation) In flight	Individual flying SE onsite	AR
BZ0070	27/10/2017	VP2a	Buzzard	1	13:29:00	38	15	23	0	HH3, (Wet heath) WD4, (Conifer plantation) Perched	Flying east towards site. Landing on Spruce tree.	AR
BZ0071	29/10/2017	VP2a	Buzzard	1	12:07:00	121	0	121	0	WD4, (Conifer plantation) Hunting	Hunting, before flying off south behind Crockanure forest.	AR
BZ0072	18/11/2017	VP5a	Buzzard	1	13:15:00	67	0	67	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) WS5, (Recently felled woodland) Hunting	Hunting over area of clear-fell in PCH	AR
BZ0073	26/11/2017	VP6	Buzzard	2	17:03:00	77	0	77	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Observed in flight soaring and circling over site.	AR
BZ0074	26/11/2017	VP6	Buzzard	1	16:20:00	30	10	20	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Flying over forestry. Flew up into PCH and out of sight.	AR
BZ0075	29/11/2017	VP3	Buzzard	1	15:10:00	80	80			WD4, (Conifer plantation) Perched flew away low		AOD
BZ0076	01/12/2017	VP2a	Buzzard	1	12:02:00	140	100	40		WD4, (Conifer plantation) Hunting		AOD
BZ0077	18/12/2017	VP2a	Buzzard	1	12:05:00	45	0	45	0	WD4, (Conifer plantation) In flight	Calling in flight	AR
BZ0078	18/12/2017	VP2a	Buzzard	1	13:45:00	210	50	160	0	HH3, (Wet heath) PB2, (Upland blanket bog) Hunting	Hunting across Meenyanly flying out of sight	AR
BZ0079	06/01/2018	VP2a	Buzzard	1	14:40:00	115	0	115	0	WD4, (Conifer plantation) WS5, (Recently felled woodland) HH3, (Wet heath) In flight	Flying south over site within PCH.	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0080	20/01/2018	VP1a	Buzzard	1	12:10:00	61	0	61	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Calling	Calling in flight south over site.	AR
BZ0081	22/02/2018	VP6	Buzzard	1	10:50:00	200			200	PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring, calling		KB
BZ0082	22/02/2018	VP6	Buzzard	1	10:52:00	80			80	PB2, (Upland blanket bog) WD4, (Conifer plantation) Soaring		KB
BZ0083	28/02/2018	VP5a	Buzzard	1	15:23:00	81	0	81	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Hunting over Glenard forest	AR
BZ0084	28/02/2018	VP5a	Buzzard	1	15:50:00	63	0	63	0	WD4, (Conifer plantation) In flight	Soaring over forestry	AR
BZ0085	18/03/2018	VP2a	Buzzard	1	16:35:00	210	0	210	0	WD4, (Conifer plantation) HH3, (Wet heath) In flight	Mobbed by HC before flying off	AR
BZ0086	20/03/2018	VP4	Buzzard	1	17:31:00	344	27	317	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Soared over forestry at 10-60m before being lost from view	Adult	RW
BZ0087	21/03/2018	VP3	Buzzard	1	15:25:00	46	46		0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunted into wind at 10-15m before dipping out of view	Adult	RW
BZ0088	05/05/2018	VP5a	Buzzard	1	16:56:00	23	23			WD4, (Conifer plantation)	flew to N/NE, slow, high >400m high over VP1	ND
BZ0089	07/05/2018	VP4	Buzzard	1	17:17:00	85		85		PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Foraging high over habitat terrain		ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ0090	07/05/2018	VP4	Buzzard	1	17:21:00	20		20		PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Foraging high over habitat terrain		ND
BZ0091	07/05/2018	VP4	Buzzard	1	17:54:00	180		180		PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Foraging high over habitat terrain		ND
BZ0092	07/05/2018	VP4	Buzzard	1	17:57:00	62		62		PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Traversing area		ND
BZ0093	07/05/2018	VP4	Buzzard	1	18:26:00	91		91		PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) Foraging high over habitat terrain		ND
BZ0094	14/06/2018	VP5a	Buzzard	1	11:30:00	180	180			WD4, (Conifer plantation) Soaring low on strong wind, repeated calling near surveyor possible nest nearby		AOD
BZ0095	14/06/2018	VP5a	Buzzard	1	12:00:00	20	20			WD4, (Conifer plantation) Hunting		AOD
BZ0096	14/06/2018	VP5a	Buzzard	1	12:20:00	60	60			WD4, (Conifer plantation) Hunting		AOD
BZ0097	23/06/2018	VP4	Buzzard	1	14:10:00	80		80		WD4, (Conifer plantation) PB2, (Upland blanket bog)		ND
BZ0098	23/06/2018	VP4	Buzzard	1	15:19:00	40		40		WD4, (Conifer plantation) PB2, (Upland blanket bog)		ND
BZ0099	27/06/2018	VP6	Buzzard	1	12:06:00	100		50	50	WD4, (Conifer plantation) Soaring over site		AOD

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00100	29/06/2018	VP2a	Buzzard	1	11:12:00	60	20	40		WD4, (Conifer plantation) Calling repeatedly		AOD
BZ00101	29/06/2018	VP2a	Buzzard	1	11:50:00	20	20			WD4, (Conifer plantation) Flying low near possible nest area calling		AOD
BZ00102	29/06/2018	VP2a	Buzzard	1	12:20:00	20	20			WD4, (Conifer plantation) Flying low near possible nest area calling		AOD
BZ00103	24/07/2018	VP5a	Buzzard	2	12:45:00	10	10			WD4, (Conifer plantation) Pair of adults near possible nest area. Flying low		AOD
BZ00104	24/07/2018	VP5a	Buzzard	1	13:46:00	60	30	30		WD4, (Conifer plantation) Adult soaring		AOD
BZ00105	24/07/2018	VP5a	Buzzard	1	13:55:00	20	20			WD4, (Conifer plantation) Adult soaring Hunting		AOD
BZ00106	26/07/2018	VP2a	Buzzard	1	15:25:00	300	100	200		WD4, (Conifer plantation) Hunting south of Sorne Windfarm		AOD
BZ00107	16/08/2018	VP1a	Buzzard	2	18:00:00	400	200	200		WD4, (Conifer plantation) PB2, (Upland blanket bog) Pair hunting		AOD
BZ00108	23/08/2018	VP3	Buzzard	1	11:22:00	10	10			WD4, (Conifer plantation) Perched flew off		AOD
BZ00109	30/08/2018	VP6	Buzzard	1	12:20:00	100	100			WD4, (Conifer plantation) Calling, soaring over site		AOD
BZ00110	18/09/2018	VP5a	Buzzard	1	07:14:00	10	10			WD4, (Conifer plantation) Travelling		AOD
BZ00119	06/10/2018	VP5	Buzzard	1	16:44:00	165	45	120	0	PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting	Hunting over rank grassland	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00120	14/10/2018	VP2	Buzzard	1	16:38:00	60	0	60	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Circling/ hunting west offsite	AR
BZ00121	20/10/2018	VP6	Buzzard	1	13:30:00	63	63	0	0	GS4, (Wet grassland) Hunting	Flying low hunting offsite	AR
BZ00122	15/02/2019	VP1	Buzzard	3	13:01:00	240		240		WD4, (Conifer plantation) GS4, (Wet grassland) HH4, (Montane heath) Soaring, calling		AOD
BZ00123	15/02/2019	VP1	Buzzard	2	13:29:00	190	90	100		WD4, (Conifer plantation) Soaring, calling		AOD
BZ00124	15/02/2019	VP1	Buzzard	1	13:34:00	30	30			WD4, (Conifer plantation) Flew from edge of site flew towards VP calling		AOD
BZ00125	15/02/2019	VP1	Buzzard	1	14:45:00	60	60			WD4, (Conifer plantation) HH4, (Montane heath) Soaring		AOD
BZ00126	15/02/2019	VP1	Buzzard	2	14:47:00	600	300	300		WD4, (Conifer plantation) HH4, (Montane heath) Soaring, calling		AOD
BZ00127	17/02/2019	VP3	Buzzard	1	14:34:00	50		50		WD4, (Conifer plantation) Soaring, calling		AOD
BZ00128	17/02/2019	VP3	Buzzard	1	15:05:00	15	15			WD4, (Conifer plantation) HH4, (Montane heath) Flying from hilltop		AOD
BZ00129	25/02/2019	VP1	Buzzard	1	15:50:00	20	20			WD4, (Conifer plantation) HH4, (Montane heath) Soaring		AOD
BZ00130	25/02/2019	VP1	Buzzard	1	16:00:00	30	30			WD4, (Conifer plantation) Flying near treetops calling		AOD
BZ00131	27/02/2019	VP4	Buzzard	1	13:45:00	45	45			WD4, (Conifer plantation) Soaring, calling		AOD

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00132	27/02/2019	VP4	Buzzard	1	13:59:00	20		20		WD4, (Conifer plantation) Soaring		AOD
BZ00133	12/03/2019	VP2	Buzzard	1	09:20:00	10	10			WD4, (Conifer plantation) Flying low		AOD
BZ00134	12/03/2019	VP2	Buzzard	1	09:33:00	180	130	50		WD4, (Conifer plantation) Soaring		AOD
BZ00135	13/03/2019	VP6	Buzzard	1	14:36:00	45	45			WD4, (Conifer plantation) Flying		AOD
BZ00136	26/03/2019	VP3	Buzzard	1	11:18:00	10	10			WD4, (Conifer plantation) Flew between trees	Adult	AOD
BZ00137	26/03/2019	VP3	Buzzard	1	11:20:00	16	16			WD4, (Conifer plantation) Followed same route between trees	Adult	AOD
BZ00138	10/04/2019	VP1a	Buzzard	1	09:53:00	200		200		PB3, (Lowland blanket bog) HH3, (Wet heath) 400m to south. Hover and hunting for 200 secs then made a dive out of view		ND
BZ00139	10/04/2019	VP3a	Buzzard	1	11:08:00	80		80		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) circling over terrain and forestry.		ND
BZ00140	10/04/2019	VP3a	Buzzard	1	11:18:00	75		75		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) BZ seen again, circling low and ascending flying over young forestry and mixed habitat. South-east to north west.		ND
BZ00141	11/04/2019	VP5	Buzzard	1	10:27:00	15	15			WD4, (Conifer plantation) Being mobbed by a raven		JB

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00142	11/04/2019	VP5	Buzzard	2	12:40:00	35				WD4, (Conifer plantation) PB3, (Lowland blanket bog) Perching on site and feeding off sheep carcass off site. Getting mobbed by raven.		JB
BZ00143	17/04/2019	VP6	Buzzard	1	18:00:00	10	10			PB2, (Upland blanket bog) hunting		JB
BZ00144	17/04/2019	VP6	Buzzard	1	18:01:00	314	9	305		PB2, (Upland blanket bog) hunting		JB
BZ00145	17/04/2019	VP6	Buzzard	1	18:13:00	50		50		PB2, (Upland blanket bog) hunting		JB
BZ00146	17/04/2019	VP6	Buzzard	1	18:40:00	5		5		PB2, (Upland blanket bog) hunting		JB
BZ00147	17/04/2019	VP6	Buzzard	1	18:44:00	7		7		PB2, (Upland blanket bog) hunting		JB
BZ00148	17/04/2019	VP6	Buzzard	1	18:47:00	20	15	5		PB2, (Upland blanket bog) hunting		JB
BZ00149	17/04/2019	VP6	Buzzard	1	19:24:00	164		164		PB2, (Upland blanket bog) hunting		JB
BZ00150	17/04/2019	VP6	Buzzard	1	19:29:00	92		92		PB2, (Upland blanket bog) hunting		JB
BZ00151	07/05/2019	VP4	Buzzard	1	06:28:00	20		20		WD4, (Conifer plantation) PB2, (Upland blanket bog) Travelling		JB
BZ00152	13/05/2019	VP1a	Buzzard	1	06:22:00	92		92		HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) Foraging by hovering	Breeding territory	ND
BZ00153	13/05/2019	VP1a	Buzzard	1	09:18:00	360		360		HH3, (Wet heath) PB2, (Upland blanket bog) PF2, (Poor fen and flush) Foraging	Breeding territory	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										by hovering about 80m over ground, position 600m SW of VP1a, quartering ground from height and moving slowly eastward out of viewshed.		
BZ00154	19/05/2019	VP2a	Buzzard	1	07:10:00	45	45			WD4, (Conifer plantation) Flying low and direct, in breeding site / territory area	Breeding territory	ND
BZ00155	19/05/2019	VP2a	Buzzard	1	10:55:00	265		265		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) Foraging on wing, hovering and moving positions, scanning terrain below. On skyline over forest edge zone.	Breeding territory	ND
BZ00156	21/05/2019	VP5	Buzzard	1	10:00:00	26		26		HH3, (Wet heath) PF2, (Poor fen and flush) WD4, (Conifer plantation) TRAVELLING		JB
BZ00157	28/05/2019	VP6	Buzzard	1	09:15:00	600		600		PB2, (Upland blanket bog) HH3, (Wet heath) GS4, (Wet grassland) Foraging. Hovering and moving positions by small margins, progressively eastward over plateau	Breeding territory	ND
BZ00158	07/06/2019	VP2a	Buzzard	1	10:25:00	90		90		PB4, (Cutover bog) HH3, (Wet heath) WD4, (Conifer plantation) Hovering, moving position, foraging.	Hovering, moving position, foraging.	ND
BZ00159	07/06/2019	VP2a	Buzzard	1	10:43:00	190	90	100		WD4, (Conifer plantation) possible same bird as above.	possible same bird as above. Arrived into forested area and	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										Arrived into forested area and conifers and made prey food drop to nest. Quick in and out skirted away and circled up and around then off to south /south west again. Nest approx. 43000/31000	conifers and made prey food drop to nest. Quick in and out skirted away and circled up and around then off to south /south west again. Nest approx. 43000/31000	
BZ00160 (NEST)	07/06/2019	VP2a	Buzzard								Nest	ND
BZ00161	22/06/2019	VP2a	Buzzard	1	11:40:00	35	35				Flew across forest ride in direct flight 10-20 m high descending over WD4 towards nest area. Possibly carrying food item. Out of view behind conifers	ND
BZ00162	26/06/2019	VP3a	Buzzard	1	12:04:00	85	30	55		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) flew south over slope of Crockanure forest, quartering terrain then circling and descending in valley bottom, forest edge-wetland near river. Dropped down out of view	flew south over slope of Crockanure forest, quartering terrain then circling and descending in valley bottom, forest edge-wetland near river. Dropped down out of view	ND
BZ00163	28/06/2019	VP6	Buzzard	1	12:24:00	280	20	260		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet heath) Flew slowly down over slope finally down to ground. Dropped down at forest edge near stream, and poor flush area	Flew slowly down over slope finally down to ground. Dropped down at forest edge near stream, and poor flush area	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
BZ00164	29/06/2019	VP5	Buzzard	1	16:06:00	38		38		WD4, (Conifer plantation) Hunting, very active over young 2nd generation plantation on site	Hunting, very active over young 2nd generation plantation on site	JB
BZ00165	06/07/2019	VP1a	Buzzard	1	12:26:00	128		80	48	WD4, (Conifer plantation) Foraging, hovering, descending to tree-top level, moving west	In breeding territory	ND
BZ00166	13/07/2019	VP1a	Buzzard	1	10:35:00	282		10	272	WD4, (Conifer plantation) Foraging, hovering, moving southwest	In breeding territory	ND
BZ00167	16/07/2019	VP3a	Buzzard	1	10:21:00	164			164	PB2, (Upland blanket bog) HH3, (Wet heath) hovering foraging across slope of Glackmore	In breeding territory	ND
BZ00168	16/07/2019	VP3a	Buzzard	1	12:10:00	285			285	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) foraging, pausing to hover and scan repeatedly, finally moving away from view to SW	In breeding territory	ND
BZ00169	20/07/2019	VP4	Buzzard	1	11:36:00	366			256	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting, circling		JB
BZ00170	20/07/2019	VP4	Buzzard	1	12:52:00	95		15	30	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting		JB
BZ00171	20/07/2019	VP4	Buzzard	1	13:29:00	18			18	WD4, (Conifer plantation) Hunting		JB
BZ00172	23/07/2019	VP5	Buzzard	1	11:29:00	16		16		PB2, (Upland blanket bog) WD4, (Conifer plantation)		JB

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										Travelling to land on bead tree where perched for 12min before leaving.		
BZ00173	21/08/2019	VP4	Buzzard	1	16:54:00	240	100	140		WD4, (Conifer plantation) Soaring.		JK
BZ00174	04/09/2019	VP5	Buzzard	1	08:45:00	25	25			GS4, (Wet grassland) Soaring into wind	Adult	JK

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ175	VP4	23/01/2021	10:41	Buzzard	1	79			79		conifer plantation; circling over Glenard, female	DM
BZ176	VP1	08/02/2021	14:09	Buzzard	1	136		136			conifer plantation; circling over Glenard, female	DM
BZ177	VP2	08/02/2021	11:55	Buzzard	1	180		180			raised bog and conifer plantation; hunting, male	MM
BZ178	VP2	08/02/2021	13:10	Buzzard	1	150		30	120		raised bog and conifer plantation; hunting, female	MM
BZ179	VP2	08/02/2021	14:15	Buzzard	1	75	15	60			conifer plantation and raised bog; travelling, male	MM
BZ180	VP2	08/02/2021	14:20	Buzzard	2	180		180			raised bog; travelling, male& female	MM
BZ181	VP2	08/02/2021	16:55	Buzzard	1	360	120	240			conifer plantation and raised bog; hunting between turbines, female	MM
BZ182	VP2	09/02/2021	12:36	Buzzard	1	780	30	30	720		raised bog and conifer plantation; hunting, female	MM
BZ183	VP2	09/02/2021	14:05	Buzzard	1	120			120		raised bog; hunting, female	MM

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ184	VP3	11/02/2021	12:03	Buzzard	1	416	329	87			raised bog and conifer plantation; hunting, female	DM
BZ185	VP4	15/02/2021	11:47	Buzzard	1	236		41	195		conifer plantation; circling over glenard, female	DM
BZ186	VP7	22/02/2021	11:30	Buzzard	1	900	300	600			raised bog and conifer plantation; hunting, male	DM
BZ187	VP7	22/02/2021	11:55	Buzzard	1	660	120	420	120		conifer plantation and raised bog; hunting, mobbed by hc, male	MM
BZ188	VP7	22/02/2021	14:47	Buzzard	1	480		300	120	60	raised bog and conifer plantation; soaring, female	MM
BZ189	VP7	22/02/2021	15:50	Buzzard	1	1200	720	420			conifer plantation and raised bog; hunting, female	MM
BZ190	VP7	22/02/2021	16:20	Buzzard	1	420	60	300			conifer plantation and raised bog; hunting, male	MM
BZ191	VP7	01/03/2021	10:29	Buzzard	1	463		163	300		mixed broadleaved/conifer woodland and raised bog; circling over restock, female	DM
BZ192	VP2	03/03/2021	11:05	Buzzard	1	374		142	232		conifer plantation and raised bog; circling over Glenard before hunting over Some. moved off in NW direction, female	DM
BZ193	VP5	04/03/2021	12:23	Buzzard	1	369		369			conifer plantation; circling over glenard, male	DM
BZ194	VP1	06/03/2021	11:29	Buzzard	1	436		22	414		conifer plantation and raised bog; circling over Glenard. begun hunting briefly over Meenyanly, male	DM
BZ195	VP6	08/03/2021	10:21	Buzzard	1	469			469		raised bog; circling high, female	DM
BZ196	VP3	09/03/2021	10:02	Buzzard	1	309		45	264		conifer plantation; circling, female	DM
BZ197	VP4	10/03/2021	10:11	Buzzard	1	249			249		conifer plantation; adult - circling, female	DM

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ198	VP4	10/03/2021	13:49	Buzzard	1	360			360		conifer plantation; adult - circling, female	DM
BZ199	VP6	09/04/2021	16:04	Buzzard	1	73	0	0	73	0		DM
BZ200	VP5a	09/04/2021	19:05	Buzzard	2	187	187	0	0	0	improved agricultural grassland; pair copulating in the tree	BD
BZ201	VP1a	11/04/2021	13:01	Buzzard	1	30	0	30	0	0	conifer plantation; flew low over forestry	PW
BZ202	VP1a	11/04/2021	13:05	Buzzard	1	10	10	0	0	0	conifer plantation; flew low over forestry	PW
BZ203	VP4	09/05/2021	08:11	Buzzard	1	216	0	0	216	0	conifer plantation and bogs; circling	DM
BZ204	VP6	15/05/2021	06:11	Buzzard	1	136	0	0	136	0	bogs and conifer plantation; circling	DM
BZ205	VP7	16/05/2021	09:56	Buzzard	1	40	0	40	0	0	conifer plantation; flying	PW
BZ206	VP2	22/05/2021	14:58	Buzzard	1	240	0	0	240	0	conifer plantation and bogs; hunting, bird hovered at times	MM
BZ207	VP2	22/05/2021	16:20	Buzzard	1	60	0	0	60	0	bogs; hunting, then travelling	MM
BZ208	VP2	22/05/2021	16:58	Buzzard	2	120	0	30	90	0	bogs; soaring, soaring, one bird went down	MM
BZ209	VP5	24/05/2021	06:24	Buzzard	1	206	0	0	206	0	bogs; male circling	DM
BZ210	VP3	29/05/2021	06:29	Buzzard	1	293	0	0	293	0	conifer plantation and improved agricultural grassland; circling, male	DM
BZ211	VP7	07/06/2021	13:51	Buzzard	2	45	45	0	0	0	conifer plantation and bogs; mobbed by hc , lost sight	PW
BZ212	VP1a	08/06/2021	12:02	Buzzard	1	15	15	0	0	0	conifer plantation; flying, lost sight	PW
BZ213	VP5	09/06/2021	15:11	Buzzard	1	184	0	0	184	0	conifer plantation and improved agricultural grassland; circling, female	DM
BZ214	VP3	11/06/2021	14:21	Buzzard	1	369	0	86	283	0	improved agricultural grassland and conifer plantation; flying low and fast, male	DM
BZ215	VP2	13/06/2021	09:17	Buzzard	1	300	30	30	240	0	bogs; hunting, hovering, dived to ground	MM

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ216	VP2	13/06/2021	10:09	Buzzard	1	420	0	0	420	0	improved agricultural grassland; mobbed by HC, went above it	MM
BZ217	VP2	13/06/2021	11:33	Buzzard	1	90	0	0	90	0	bogs; soaring high	MM
BZ218	VP5	09/07/2021	11:03	Buzzard	1	216	0	0	216	0	conifer plantation and raised bog; circling, male	DM
BZ219	VP1a	11/07/2021	08:09	Buzzard	1	86	10	60	16	0	conifer plantation and bogs; hunting, male	PW
BZ220	VP1a	11/07/2021	13:30	Buzzard	1	42	0	0	42	0	conifer plantation and bogs; hunting, male	PW
BZ221	VP6	14/07/2021	10:04	Buzzard	1	89	0	19	70	0	bogs and conifer plantation; ad male circling over Glackmore Hill, ad male	DM
BZ222	VP7	25/07/2021	12:10	Buzzard	2	120	120	0	0	0	conifer plantation; 2x juv flying low along forestry and going to ground	MM
BZ223	VP1a	29/08/2021	09:22	Buzzard	1	179	0	33	146	0	conifer plantation and bogs; circling, female circling high (circa 100m) over Meenyarly	DM
BZ224	VP2	31/08/2021	14:53	Buzzard	1	164	0	0	164	0	conifer plantation and bogs; circling, male circling over some hill flew off in sw direction	DM
BZ225	VP2	21/09/2021	15:20	Buzzard	1	150	0	150	0	0	bogs; circling and hovering, mobbed by 2 ravens	MM
BZ226	VP2	21/09/2021	15:50	Buzzard	1	45	0	45	0	0	bogs; travelling near forest	MM
BZ227	VP7	25/09/2021	15:15	Buzzard	2	360	0	90	270	0		MM
BZ228	VP7	25/09/2021	15:30	Buzzard	2	240	0	60	180	0		MM
BZ229	VP7	25/09/2021	15:45	Buzzard	1	60	0	20	40	0		MM
BZ230	VP7	25/09/2021	15:55	Buzzard	1	120	0	0	120	0		MM
BZ231	VP4	26/09/2021	17:51	Buzzard	1	122	0	0	122	0	bogs; circling, male circling overhead. moved off in w direction	DM

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ232	VP1	30/09/2021	15:02	Buzzard	1	163	0	0	163	0	conifer plantation; circling, female circling over forestry. moved off out of site in NNW direction	DM

Vantage Point Survey – Non-Flight Observations							
Date	VP	Species	No. of Birds	Time	Comments	Surveyor	
20/04/2018	5a	Buzzard	1		Heard only to west	ND	
21/04/2018	4	Buzzard	1		Heard only to west	ND	

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ001	09/04/2017	13:01	Buzzard	2	WD4, (Conifer plantation) Territorial call	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ002	09/04/2017	15:20	Buzzard	1	HH3, (Wet heath) Hunting	Flying over; Non-breeding	AR
BZ003	15/04/2017	11:30	Buzzard	2	PB2, (Upland blanket bog) HH3, (Wet heath) Displaying	Courtship and display; Probable breeding	AR
BZ004	15/04/2017	12:04	Buzzard	1	WS5, (Recently felled woodland) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ005	15/04/2017	12:18	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ006	15/04/2017	13:40	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ007	15/04/2017	14:15	Buzzard	1	HH3, (Wet heath) WD4, (Conifer plantation) Hunting	Singing male present in breeding season in suitable breeding habitat; Possible breeder	AR
BZ008	15/04/2017	15:30	Buzzard	1	HH3, (Wet heath) Hunting	Singing male present in breeding season in suitable breeding habitat; Possible breeder	AR
BZ009	17/04/2017	10:29	Buzzard	1	PB2, (Upland blanket bog) Hunting	Flying over; Non-breeding	AR

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0010	17/04/2017	14:20	Buzzard	2	WD4, (Conifer plantation) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0011	17/04/2017	14:58	Buzzard	1	HH3, (Wet heath) Hunting	Flying over; Non-breeding	AR
BZ0012	29/04/2017	10:50	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0013	29/04/2017	12:49	Buzzard	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0014	29/04/2017	13:20	Buzzard	1	HH3, (Wet heath) Calling	Suitable nesting habitat; Possible breeder	AR
BZ0015	06/05/2017	10:55	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0016	13/05/2017	12:35	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0017	18/05/2017	12:31	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0018	20/05/2017	12:03	Buzzard	2	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0019	10/06/2017	12:48	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0020	11/06/2017	13:40	Buzzard	2	WD4, (Conifer plantation) Hunting	Adults carrying faecal sac or food for young; Confirmed breeding	AR
BZ0021	16/06/2017	09:40	Buzzard	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0022	24/06/2017	09:15	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0023	24/06/2017	10:25	Buzzard	1	WS5, (Recently felled woodland) Flying around nest site	Adults entering/leaving nests or seen incubating; Confirmed breeding	AR
BZ0024	09/07/2017	10:46	Buzzard	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0025	09/07/2017	13:40	Buzzard	2	HH3, (Wet heath) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0026	23/07/2017	13:10	Buzzard	2	WD4, (Conifer plantation) Calling	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0027	23/07/2017	14:10	Buzzard	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0028	29/07/2017	14:50	Buzzard	1	PB2, (Upland blanket bog) Perched	Suitable nesting habitat; Possible breeder	AR
BZ0029	29/07/2017	16:34	Buzzard	1	PB2, (Upland blanket bog) Calling	Suitable nesting habitat; Possible breeder	AR
BZ0030	04/04/2018	13:51:00	Buzzard	1	flying around north boundary of the site		AOD

Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0031	04/04/2018	16:09:00	Buzzard	1	flying around north boundary of the site		AOD
BZ0032	05/04/2018	12:10:00	Buzzard	1	WD4, (Conifer plantation) soaring over WD4		AOD
BZ0033	05/04/2018	14:55:00	Buzzard	1	WD4, (Conifer plantation) flew out of WD4 track		AOD
BZ0034	05/04/2018	16:00:00	Buzzard	3	GS4, (Wet grassland) Flew from GS4 on site, possibly mating	Possible	AOD
BZ0035	07/04/2018	18:19:00	Buzzard	1	WD4, (Conifer plantation) soaring over WD4		AOD
BZ0036	19/05/2018	13:10:00	Buzzard	1	Soaring over conifer plantation and bog.		JOS
BZ0037	19/05/2018		Buzzard	1			JOS
BZ0038	19/05/2018		Buzzard	1			JOS
BZ0039	20/06/2018	15:04:00	Buzzard	1	WD4, (Conifer plantation) Flying low on site. Hunting		AOD
BZ0040	21/06/2018	16:50:00	Buzzard	1	Soaring high. South of Glenard		AOD
BZ0041	28/06/2018	10:41:00	Buzzard	2	Soaring over west of site. Calling repeatedly. Alarmed	Probable	AOD
BZ0043	18/07/2018	14:55:00	Buzzard	2	WD4, (Conifer plantation) Flying low and calling near nest site on Ture. No fledglings visible, but adults territorial	Probable	AOD
BZ0043	19/07/2018	12:18:00	Buzzard	1	Soaring low west of site		AOD
BZ0044	19/07/2018	15:53:00	Buzzard	1	WD4, (Conifer plantation) Soaring high over Glenard site		AOD
BZ0045	19/07/2018	16:47:00	Buzzard	1	WS5, (Recently felled woodland) Hunting west of site. Hovering over.		AOD
BZ0046	20/07/2018	16:22:00	Buzzard	2	Flew out from near possible nest area	Probable	AOD
BZ047	30/04/2021	13:02	Buzzard	1	bogs; flying, male (suitable nesting habitat; possible breeder)		PW
BZ048	10/06/2021	17:41	Buzzard	1	bogs and conifer plantation; circling, male (suitable nesting habitat; possible breeder)		DM
BZ049	11/07/2021	18:01	Buzzard	1	bogs; flying, male (suitable nesting habitat; possible breeder)		PW

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ001	14/04/2017	09:44:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ002	14/04/2017	10:30:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ003	14/04/2017	12:45:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) In flight	Flying over; Non-breeding	AR
BZ004	14/04/2017	13:20:00	Buzzard	2	HH3, (Wet heath) Displaying	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ005	16/04/2017	10:30:00	Buzzard	2	HH3, (Wet heath) PB2, (Upland blanket bog) Displaying	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ006	16/04/2017	12:40:00	Buzzard	1	HH3, (Wet heath) Hunting	Flying over; Non-breeding	AR
BZ007	16/04/2017	14:20:00	Buzzard	1	WS5, (Recently felled woodland) Hunting	Flying over; Non-breeding	AR
BZ008	30/04/2017	10:58:00	Buzzard	2	PB2, (Upland blanket bog) Territorial	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ009	30/04/2017	11:35:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0010	30/04/2017	13:25:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0011	07/05/2017	09:20:00	Buzzard	2	HH3, (Wet heath) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0012	07/05/2017	12:10:00	Buzzard	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
BZ0013	14/05/2017	10:35:00	Buzzard	1	PB2, (Upland blanket bog) Nest building	Nest building or excavating nest hole; Probable breeding	AR
BZ0014	14/05/2017	11:50:00	Buzzard	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0015	16/05/2017	11:01:00	Buzzard	2	HH3, (Wet heath) WD4, (Conifer plantation) Territorial behaviour	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0016	16/05/2017	12:30:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0017	16/05/2017	14:11:00	Buzzard	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0018	09/06/2017	11:20:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Adults carrying faecal sac or food for young; Confirmed breeding	AR
BZ0019	09/06/2017	11:57:00	Buzzard	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0020	09/06/2017	13:30:00	Buzzard	1	PB2, (Upland blanket bog) Calling	Suitable nesting habitat; Possible breeder	AR
BZ0021	18/06/2017	14:30:00	Buzzard	1	HH3, (Wet heath) Calling	Suitable nesting habitat; Possible breeder	AR

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0022	18/06/2017	15:59:00	Buzzard	1	WD4, (Conifer plantation) HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0023	25/06/2017	11:50:00	Buzzard	2	WS5, (Recently felled woodland) Calling	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0024	25/06/2017	14:55:00	Buzzard	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0025	08/07/2017	12:04:00	Buzzard	1	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0026	22/07/2017	09:40:00	Buzzard	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0027	22/07/2017	11:10:00	Buzzard	1	WD4, (Conifer plantation) Perched	Recently fledged young/downy young; Confirmed breeding	AR
BZ0028	22/07/2017	13:17:00	Buzzard	1	PB2, (Upland blanket bog) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0029	22/07/2017	14:45:00	Buzzard	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
BZ0030	30/07/2017	14:15:00	Buzzard	2	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Pair observed in suitable nesting habitat in breeding season; Probable breeding	AR
BZ0031	30/07/2017	16:24:00	Buzzard	1	HH3, (Wet heath) Hunting	Suitable nesting habitat; Possible breeder	AR
BZ0032	10/04/2018	17:40:00	Buzzard	2	GS4, (Wet grassland) PB2, (Upland blanket bog) flying, pair hunting and soaring east of site		AOD
BZ0033	11/04/2018	14:28:00	Buzzard	2	PB2, (Upland blanket bog) GS4, (Wet grassland) pair soaring together band 2/3. off site		AOD
BZ0034	11/04/2018	15:31:00	Buzzard	1	WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) travelling on Illies Hill. offsite		AOD
BZ0035	12/04/2018	16:29:00	Buzzard	2	PB2, (Upland blanket bog) WD4, (Conifer plantation) pair soaring likely to be the same pair seen before		AOD
BZ0036	12/04/2018	19:09:00	Buzzard	1	PB2, (Upland blanket bog) flew from WD4 patch towards site		AOD
BZ0037	17/05/2018	11:42:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Soaring over north of site.	JOS
BZ0038	18/05/2018	12:29:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Soaring over bog and conifers, band 2, into conifer canopy, out of view.	JOS
BZ0039	18/05/2018	14:06:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Soaring over bog and conifer, band 3, mobbed by HC.	JOS

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0040	22/05/2018	15:15:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation)	Soaring band 3.	JOS
BZ0041	22/05/2018	15:25:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Soaring over conifers with other BZ.	JOS
BZ0042	22/05/2018	15:25:00	Buzzard	1	PB, (Bogs) WD4, (Conifer plantation) In flight	Soaring over conifers with other BZ.	JOS
BZ0043	22/05/2018	15:44:00	Buzzard	1	WD4, (Conifer plantation)	Flies east over conifers out of view.	JOS
BZ0044	22/05/2018	15:45:00	Buzzard	1	WD4, (Conifer plantation)	Soaring	JOS
BZ0045	22/05/2018	15:48:00	Buzzard	1	GS3, (Dry-humid acid grassland) In flight	Soaring over grassland	JOS
BZ0046	22/05/2018	16:20:00	Buzzard	1	WD4, (Conifer plantation) GS3, (Dry-humid acid grassland) In flight	Soaring over acid grassland and conifers, drops into conifer canopy.	JOS
BZ0047	22/05/2018	16:30:00	Buzzard	1	WD4, (Conifer plantation) Soaring	Soaring over conifers.	JOS
BZ0048	22/05/2018	16:33:00	Buzzard	1	WD4, (Conifer plantation) In flight.	In flight over conifers	JOS
BZ0049	22/05/2018	16:59:00	Buzzard	1	WD4, (Conifer plantation) In flight.	Circles over SW corner of site	JOS
BZ0050	01/06/2018	13:00:00	Buzzard	2	FL1, (Dystrophic lakes) Pair on ground beside reservoir shore possible feeding on carrion		AOD
BZ0051	05/06/2018	12:05:00	Buzzard	1	WD4, (Conifer plantation) Calling in WD4 flushed out over PB2 flew south (band 2 60s)		AOD
BZ0052	05/06/2018	14:36:00	Buzzard	1	GA1, (Improved agricultural grassland) near gulls in silage field mobbed by HC hunting		AOD
BZ0053	06/06/2018	18:11:00	Buzzard	1	WD4, (Conifer plantation) mobbed by HC flew out from site		AOD
BZ0054	10/07/2018	15:32:00	Buzzard	1	PB2, (Upland blanket bog) GS3, (Dry-humid acid grassland) Soaring over Croakaheny flew off east		AOD
BZ0055	10/07/2018	17:00:00	Buzzard	1	PB2, (Upland blanket bog) GS4, (Wet grassland) Juvenile Illies Hill. Calling		AOD
BZ0056	12/07/2018	09:01:00	Buzzard	1	WD4, (Conifer plantation) Adult over site soaring		AOD
BZ0057	12/07/2018	13:34:00	Buzzard	1	GA1, (Improved agricultural grassland) Hunting over farmland south of site		AOD
BZ0058	17/04/2019	08:25:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) GS4, (Wet grassland) foraging, hover hunting over open ground	Some Hill C4031	ND

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0059	17/04/2019	13:10:00	Buzzard	3	WD4, (Conifer plantation) HH3, (Wet heath) Flying low over forestry and possibly landing in it.	Ture SE of Crackanure (C4628)	JB
BZ0060	17/04/2019	13:30:00	Buzzard	4	HH3, (Wet heath) GS3, (Dry-humid acid grassland) HH1, (Dry siliceous heath) soaring, interactive, territorial	Eskaheen east (C4428)	JB
BZ0061	17/04/2019	15:35:00	Buzzard	1	HH3, (Wet heath) GS3, (Dry-humid acid grassland) GS4, (Wet grassland) Flying, foraging	Ture and SE Crackanure (C4729)	JB
BZ0062	17/04/2019	13:55:00	Buzzard	1	PB2, (Upland blanket bog) HH3, (Wet heath) WD4, (Conifer plantation) FLYING. Turning 15m over ground, within broad ridgeline and flew away out of view	C4231 (Cloghadoo)	ND
BZ0063	17/04/2019	14:30:00	Buzzard	1	WD4, (Conifer plantation) FORAGING and flying low over immature WD4 and away over crest of hill to SE	C4230 Meenyanly	ND
BZ0064	21/04/2019	09:36:00	Buzzard	1	WD4, (Conifer plantation) Flew low eastward, calling repeated alarm call. Territorial and defensive, possibly female near nest.	Flew west in ridgeline unsighted, calling alarm, territorial from C4429 to C4329. Breeding site, near nest.	ND
BZ0065	21/04/2019	12:30:00	Buzzard	2	WD4, (Conifer plantation) HH3, (Wet heath) Two BZ flying a little apart, foraging over immature WD4 and open moor. Seem to be a pair. No aggression observed.	one pair in territory	ND
BZ0066	21/04/2019	13:40:00	Buzzard	1	GS3, (Dry-humid acid grassland) HH3, (Wet heath) GS4, (Wet grassland) One BZ in flight foraging over slope of Glackmore		ND
BZ0067	21/04/2019	14:00:00	Buzzard	2	GS3, (Dry-humid acid grassland) HH3, (Wet heath) GS4, (Wet grassland) Two BZ very high, >100m soaring, interactive. Like two males disputing along territory boundary.	Overlap of two BZ breeding site territories	ND
BZ0068	24/04/2019	08:51:00	Buzzard	2	WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) Pair of BZ flew from edge over Illies Forest, SE toward and into Glenard forest. Lost visual at that point	Overlap of two BZ breeding site territories	ND
BZ0069	24/04/2019	10:35:00	Buzzard	1	WD4, (Conifer plantation) BZ flying circling and giving alarm call over high closed forest, where nest located at C437327	Overlap of two BZ breeding site territories	ND
BZ0070	25/04/2019	11:22:00	Buzzard	1	HH3, (Wet heath) GS4, (Wet grassland) GS3, (Dry-humid acid grassland) Buzzard flying, foraging over hill slopes	probable breeding territory	JB

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0071	25/04/2019	12:24:00	Buzzard	1	WD4, (Conifer plantation) HH3, (Wet heath) BZ flying, not travelling, over Illies Hill. Dropped down, out of view.	possible pair breeding in this area. Same or mate of previous obs. (18)	JB
BZ0072	01/05/2019	12:00:00	Buzzard	1	WD4, (Conifer plantation) Perched, then flew off	possibly breeding in the area	JB
BZ0073	01/05/2019	15:14:00	Buzzard	1	WD4, (Conifer plantation) Flying high, circling soaring 100m high, glide slowly west	breeding territory	JB
BZ0074	01/05/2019	16:34:00	Buzzard	1	PB2, (Upland blanket bog) HH3, (Wet heath) PF2, (Poor fen and flush) foraging over slope	breeding territory	JB
BZ0075	15/05/2019	08:17:00	Buzzard	1	WD4, (Conifer plantation) HH3, (Wet heath) Buzzard flying, foraging by hovering over hill slopes	possible breeding territory	JB
BZ0076	15/05/2019	12:40:00	Buzzard	1	HH3, (Wet heath) WD4, (Conifer plantation) Foraging; hunting over slope, moving eastward	possible breeding territory	JB
BZ0077	13/06/2019	06:55:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) Flying very high, slow, patrolling flight, northward in C4130 to C4131	VP at C431/307	JB
BZ0078	13/06/2019	12:13:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) Straight flight across valley from SE to NW	VP at C433/306	JB
BZ0079	22/06/2019	17:25:00	Buzzard	1	WD4, (Conifer plantation) GS4, (Wet grassland) HH3, (Wet heath) BZ perched at forest edge in conifers, disturbed and flew off west over riparian wet grassland in river valley, 10m high		ND
BZ0080	30/06/2019	09:23:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) BZ travelling then foraging for 250 sec along bottom of valley, then flying on to E	VP at C435/307 BZ seems to belong to a pair that hold a territory and possibly breeding in the area 55.1277389, -7.307774	JB
BZ0081	30/06/2019	12:50:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation) BZ travelling up valley bottom eastward to Crockanure	VP at C438/308 good breeding habitat for HH and also covers probable flight paths i.e. river channel, forestry rides and tracks and the valley itself. Feel that this area is now well covered and does not have breeding HH	ND
BZ0087	16/07/2019	06:42:00	Buzzard	1	WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) BZ flew out of WD4 with J. fledging prey, to NW 20m high, carrying towards nest site.	J distress calls heard just before	ND

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ0084	20/07/2019	10:21:00	Buzzard	1	HH3, (Wet heath) WD4, (Conifer plantation) Buzzard foraging in very methodical fashion; 30m over terrain, traversing along over forest edge zone E to W, pausing to hover, then moving on a little and repeating. Working in a straight line flightline.	Within occupied breeding territory in south side of Owenkillew valley	ND
BZ0085	20/07/2019	10:55:00	Buzzard	1	WD4, (Conifer plantation) HH3, (Wet heath) PB2, (Upland blanket bog) Buzzard foraging over SW slope of Crockanure	In occupied breeding territory in south side of Owenkillew valley	ND
BZ0082	25/07/2019	14:28:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation)	low over forestry then hunting flight. 270 secs	JB
BZ0083	25/07/2019	15:22:00	Buzzard	1	HH3, (Wet heath) PB2, (Upland blanket bog) WD4, (Conifer plantation)	slow travelling flight along river 165 sec, lost in haze	JB
BZ0086	27/07/2019	08:50:00	Buzzard	1	WD4, (Conifer plantation) GS4, (Wet grassland) FW1, (Eroding/upland rivers) BZ flew E to W, overhead on walkover survey route along Owenkillew River, 20m over ground.	BZ flew E to W, overhead on walkover survey route along Owenkillew River, 20m over ground.	ND
BZ087	19/04/2021	09:37	Buzzard	1	raised bog and improved agricultural grassland, circling over northern side of site. mobbed by MT & HC, adult male		DM
BZ088	22/04/2021	10:10	Buzzard	1	cutover bog, circling over bog, flew very low over heather		MM
BZ089	22/04/2021	10:50	Buzzard	2	cutover bog, soaring over forest		MM
BZ090	28/04/2021	10:15	Buzzard	1	amenity grassland (improved) and dry siliceous heath, flew over hill. mobbed by HC		MM
BZ091	28/04/2021	10:55	Buzzard	1	reservoirs, carrying prey. mobbed by raven		MM
BZ092	28/04/2021	13:55	Buzzard	1	improved agricultural grassland and upland blanket bog, travelling 200-300m high, bird flew very high		MM
BZ093	13/05/2021	10:25	Buzzard	1	bogs and improved agricultural grassland, travelling, mobbed by RN		MM
BZ094	13/05/2021	10:50	Buzzard	2	bogs, soaring together		MM

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ095	13/05/2021	10:59	Buzzard	1	bogs, soaring over heather then landed on fence post		MM
BZ096	13/05/2021	11:10	Buzzard	1	conifer plantation, flying over forest		MM
BZ097	13/05/2021	11:15	Buzzard	2	cutover bog, soaring very high together calling		MM
BZ098	13/05/2021	11:52	Buzzard	1	bogs, soaring		MM
BZ099	13/05/2021	12:25	Buzzard	1	cutover bog, circled over bog, landed on tree		MM
BZ100	13/05/2021	12:30	Buzzard	2	conifer plantation, two buzzards perched on forest, may be nesting in forest		MM
BZ101	23/05/2021	14:12	Buzzard	1	conifer plantation and bogs, male BZ mobbed by HC, low flight over forestry		PW
BZ102	23/05/2021	16:00	Buzzard	2	bogs, male and female on ground, then soared to >200m		PW
BZ103	25/05/2021	09:24	Buzzard	1	bogs, hunting male		DM
BZ104	26/05/2021	09:34	Buzzard	1	bogs and conifer plantation, male hunting, flew towards Sorne		DM
BZ105	06/06/2021	08:50	Buzzard	1	bogs, flying from east to west, started to be mobbed by HC, male		PW
BZ106	06/06/2021	10:50	Buzzard	2	bogs, male and female together, then being mobbed by 2xhc, then soared high		PW
BZ107	09/06/2021	11:52	Buzzard	1	bogs and conifer plantation, travelling, hovering then displaying		MM
BZ108	09/06/2021	13:50	Buzzard	2	improved agricultural grassland and conifer plantation, travelling then circled over forest		MM
BZ109	12/06/2021	10:10	Buzzard	1	bogs, travelling over hill, mobbed by 2 ravens and a kestrel		MM
BZ110	12/06/2021	10:24	Buzzard	1	bogs, soaring over area then flew towards hill, landed on hill		MM
BZ111	12/06/2021	13:05	Buzzard	1	bogs, circled over rushy fields and landed on same spot as map ref 3 bird		MM

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
BZ112	13/06/2021	10:10	Buzzard	1	bogs and improved agricultural grassland, circling - mobbed by HC, male		DM
BZ113	08/07/2021	10:05	Buzzard	1	bogs, sitting on a pole scanning for prey		MM
BZ114	08/07/2021	12:25	Buzzard	1	bogs, hunting over moorlands		MM
BZ115	08/07/2021	12:40	Buzzard	1	bogs, travelling over fields then over bog. mobbed by hooded crows		MM
BZ116	08/07/2021	13:05	Buzzard	1	bogs, sitting on a pole. same as map ref 1		MM
BZ117	19/07/2021	13:24	Buzzard	1	conifer plantation, male circling over forestry, male		DM

Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
BZ001	29/10/2016	09:20:00	Buzzard	1	adult male	PB2, (Upland blanket bog) Hunting	AR
BZ002	29/10/2016	12:30:00	Buzzard	2		WD4, (Conifer plantation) Hunting	AR
BZ003	18/12/2016	12:22:00	Buzzard	1		HH3, (Wet heath) Hunting over heathland	AR
BZ004	18/12/2016	12:40:00	Buzzard	1		HH3, (Wet heath) Hunting	AR
BZ005	18/12/2016	15:09:00	Buzzard	1	Adult male	PB2, (Upland blanket bog) Hunting offsite	AR
BZ006	22/01/2017	13:31:00	Buzzard	1		PB2, (Upland blanket bog) Hunting over bogland on site boundary	AR
BZ007	18/03/2017	08:59:00	Buzzard	1		WS5, (Recently felled woodland) Hunting over clear-fell	AR
BZ008	18/03/2017	11:43:00	Buzzard	1		GA1, (Improved agricultural grassland) Hunting	AR
BZ009	14/10/2017	08:50:00	Buzzard	1		PB2, (Upland blanket bog), Hunting along eastern boundary	AR
BZ0010	16/12/2017	09:37:00	Buzzard	1		WD4, (Conifer plantation) Hunting	AR
BZ0011	16/12/2017	11:54:00	Buzzard	1		WD4, (Conifer Plantation) In flight	AR
BZ0012	17/12/2017	09:22:00	Buzzard	1		Conifer Plantation, In flight	AR
BZ0013	17/12/2017	11:04:00	Buzzard	1		HH3 (Wet Heath)	AR

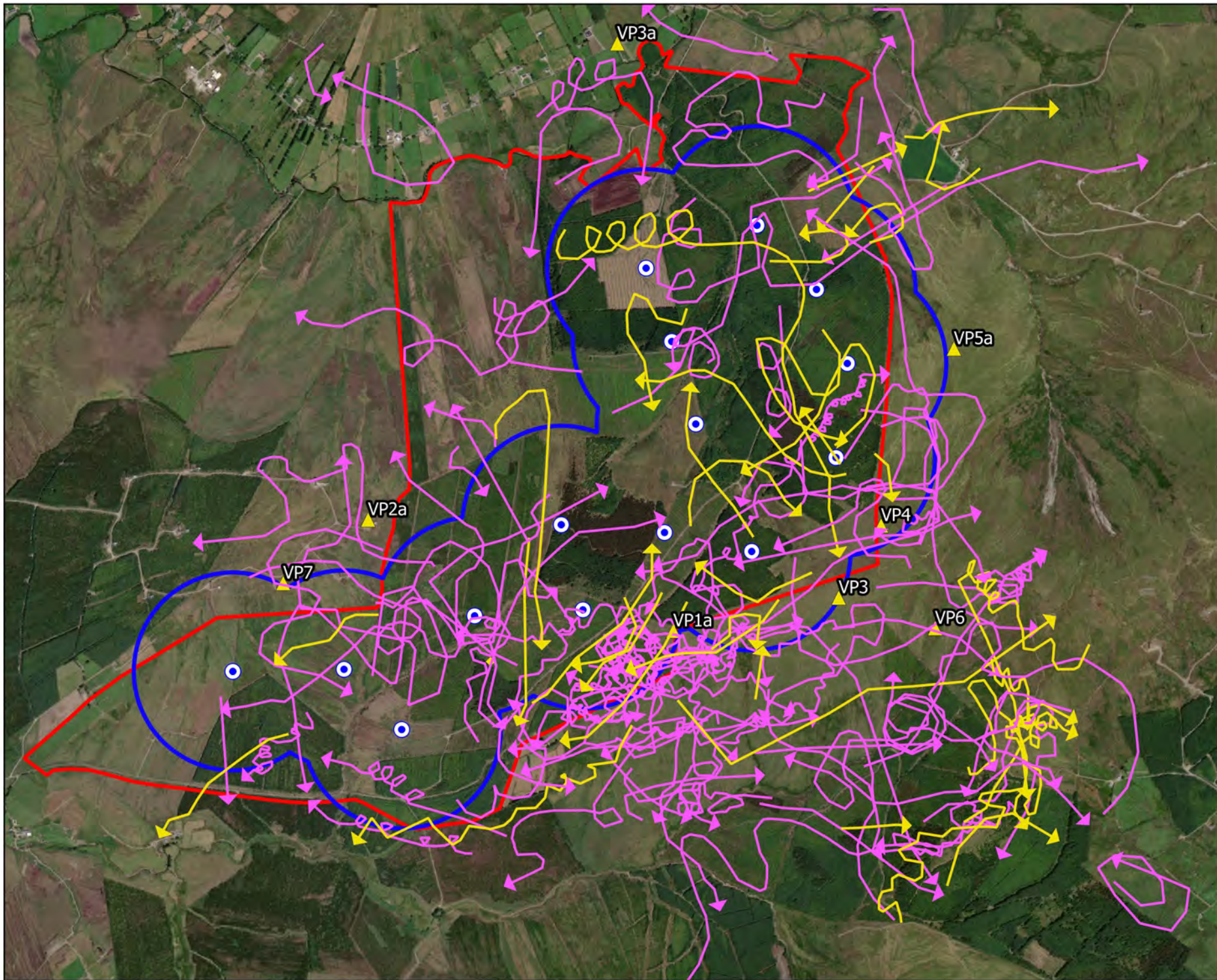
Winter Walkover Surveys							
Map Ref.	Date	Time	Species	No. of birds	Sex/age	Habitat and Activity	Surveyor
BZ0014	27/01/2018	09:18:00	Buzzard	1		PB2, (Upland blanket bog) Hunting	AR
BZ0015	27/01/2018	11:23:00	Buzzard	1		PB2, (Upland blanket bog) Hunting, Circling	AR
BZ0016	27/01/2018	11:25:00	Buzzard	1		PB2, (Upland blanket bog) Hunting	AR
BZ0017	28/01/2018	09:59:00	Buzzard	2		PB2, (Upland blanket bog) Hunting	AR
BZ0018	28/01/2018	14:39:00	Buzzard	2		PB2, (Upland blanket bog) Hunting	AR
BZ0019	05/12/2018	11:50:00	Buzzard	1	Adult	Flying high over old nest site near Ture. 40s Band 3.	AOD
BZ0020	17/01/2019	13:41:00	Buzzard	1		Flew from perch on site into woods at Ture. Near 2018 nest	AOD
BZ0021	13/02/2019	13:48:00	Buzzard	2		Pair flew from WD4 north of site. Calling then flew onto site (300s Band 2-3)	AOD
BZ0022	13/02/2019	14:50:00	Buzzard	1		Soaring over site north to SW landing on site (600s Band 3)	AOD
BZ0023	14/02/2019	12:50:00	Buzzard	1		Adult soaring near 2018 nest site near Ture (Band 3 30s)	AOD
BZ0024	14/02/2019	13:26:00	Buzzard	1		Adult, Likely different bird to first (40s Band 2)	AOD

Migration Vantage Point Surveys							
Map Ref.	Date	VP	Species	No. of birds	Notes on habitat and activity	Comments	Surveyor
BZ001	27/01/2017	Migration VP	Buzzard	1	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting		TR
BZ002	27/01/2017	Migration VP	Buzzard	1	GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Soaring, travelling		TR
No Flight Available	28/02/2017	Migration VP	Buzzard	1	GA1, (Improved agricultural grassland) WD4, (Conifer plantation) Soaring		TR

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
16/08/2016	Waterbird Count Lough Foyle, Culmore point, 55.047009, - 7.253809	Buzzard	1	Soaring over Foyle harbour, flew west over Culmore Point out of view.	JOS
09/10/2016	VP 3	Buzzard	1	Perched on tree stump Entrance to Glenard site	AR
23/10/2016	Flying over clear-fell close to site entrance	Buzzard	1	Hunting over clear-fell	AR
29/10/2016	Area 5 of HH survey	Buzzard	1	In flight	AR
31/10/2016	During winter waterfowl count	Buzzard	1		AR
17/11/2016	During HH survey at Area 3	Buzzard	1	Flying over Sorne Hill windfarm	AR
28/11/2016	During HH survey at Area 5	Buzzard	1	Hunting over site boundary	AR
04/12/2016	VP1	Buzzard	1	In flight hunting over clear-fell Glenard site entry	AR
11/12/2016	Exiting VP 2	Buzzard	1	In flight over fields at the gate entrance to Sorne Hill windfarm	AR
15/12/2016	On approach to vp5	Buzzard	1	In flight over forestry	AR
20/12/2016	During HH roost survey	Buzzard	1	In flight hunting over ground east of Glenard	AR
09/01/2017	During winter waterfowl count	Buzzard			AR
10/01/2017	During HH dusk survey	Buzzard			AR
14/01/2017	Exiting site after vp3	Buzzard		Perched	AR
16/01/2017	Upon arrival at site for vp4	Buzzard		Perched on a tree stump	AR
23/01/2017	During HH dusk survey	Buzzard		Flying south over site	AR
26/01/2017	On approach to VP6	Buzzard		In flight hunting	AR
27/01/2017	During winter waterfowl count	Buzzard			AR
04/03/2017	On route to VP1	Buzzard		On forest track feeding on frogs	AR
11/03/2017	Entering site for vp3	Buzzard		In flight over forestry	AR
12/03/2017	During HH roost survey	Buzzard		Flying west over forestry	AR
20/03/2017	During HH roost survey	Buzzard	2	In flight east over site	AR
24/03/2017	During HH roost survey	Buzzard	1	Flying west over HH VP.	AR

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
29/03/2017	On route to VP4	Buzzard	1	Flying over site boundary	AR
05/05/2017	During waterfowl survey	Buzzard			AR
14/06/2017	Vantage Point Survey	Buzzard	1	BZ noted foraging about 2km to east, airborne, S of wind turbines. Off site, so not timed or followed continuously	ND
12/08/2017	On route to vp 2	Buzzard		Adult in flight.	AR
17/08/2017	On route to vp 1	Buzzard		One adult hunting outside site entrance	AR
05/10/2017	HH Roost Survey	Buzzard	1	Hunting	AR
09/10/2017	HH Roost Survey	Buzzard	2	In flight	AR
13/10/2017	HH Roost Survey	Buzzard	1	In flight	AR
13/10/2017	HH Roost Survey	Buzzard		No HH Activity. BZ in flight offsite, snipe flushed	AR
21/10/2017	HH Roost Survey	Buzzard		No HH Activity, BZ hunting over Glenard forest	AR
03/11/2017	Glenard	Buzzard	1	In flight	AR
10/11/2017	HH Roost Survey	Buzzard	2	2 Buzzards observed hunting offsite at 14:20	AR
11/11/2017	On route to vp4	Buzzard	1	Hunting onsite at 10:52	AR
19/11/2017	Waterfowl survey	Buzzard		Hunting	AR
24/11/2017	HH Roost Survey	Buzzard	1	In flight	AR
30/11/2017	HH Roost Survey	Buzzard	1	In flight	AR
03/12/2017	HH Roost Survey	Buzzard	3		AR
04/12/2017	HH Roost Survey	Buzzard	1		AR
15/12/2017	HH Roost Survey	Buzzard	2		AR
22/12/2017	Waterfowl Survey	Buzzard	1		AR
02/01/2018	During waterfowl count	Buzzard			AR
13/01/2018	During HH roost survey	Buzzard			AR
21/01/2018	During waterfowl count	Buzzard			AR
21/02/2018	HH Roost	Buzzard	1	mobbed by k	KB

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
04/03/2018	Waterfowl Survey	Buzzard			AR
15/03/2018	HH Roost	Buzzard	1	In flight over site	AR
23/03/2018	HH Roost	Buzzard	1		AR
24/03/2018	Waterfowl Survey	Buzzard			AR
08/10/2018	HH VP1	Buzzard	1	In flight in site heading north	AR
21/10/2018	HH VP2	Buzzard	1	Hunting	AR
28/10/2018	HHVP3	Buzzard	1	Flying west over site	AR
06/12/2018	HHVP5	Buzzard	1	Perched on post for 20s then mobbed by HC	AOD
25/01/2019	VP4	Buzzard	1	Calling near VP at 13:42 unseen	AOD
06/02/2019	HHVP7	Buzzard	1	Flying	AOD
20/02/2019	HHVP	Buzzard	1	Near 2018 nest at Ture	AOD
22/02/2019	Red Grouse Survey T2	Buzzard	1		JC
22/02/2019	Waterfowl Survey at Crana River on site	Buzzard	1	Flying	AOD
23/02/2019	Red Grouse Survey T3	Buzzard	1		JC
14/03/2019	HHVP6	Buzzard	1	Flew same line towards north half of site band2	AOD
26/03/2019	VP3	Buzzard	1	Calling near VP 8:03	AOD
28/03/2019	VP6	Buzzard	2	Calling from wd4 7:45	AOD
19/04/2019	VP Survey VP1	Buzzard	1	outside the VP watch zone in 1km sq. C4530. The buzzard was foraging by hovering for an extended period, but I was unable to time this or map this accurately or map it whilst continuing to observe in the correct direction.	ND
20/07/2019	VP Survey	BZ	1	Preening at 55.144 7219, -7.2992845 on leaving site at 15:05	JB
23/07/2019	VP Survey	BZ	1	over Illies Hill 15:54 outside of survey area	JB
13/09/2019	VP2 Entry to Sorne windfarm	Buzzard	1	Leaving Roost at Dawn	JK
28/01/2021	HH Roost; HHVP3	Buzzard	2	GA, (Improved grassland); Pair soaring together	MM
05/03/2021	HH Roost; HHVP1	Buzzard	1	WD4, (Conifer plantation) PB1, (Raised bog) Travelling. Male	MM



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title
**Buzzard Breeding Season Obs.
 Vantage Point Surveys**

Project Title
Glenard Windfarm

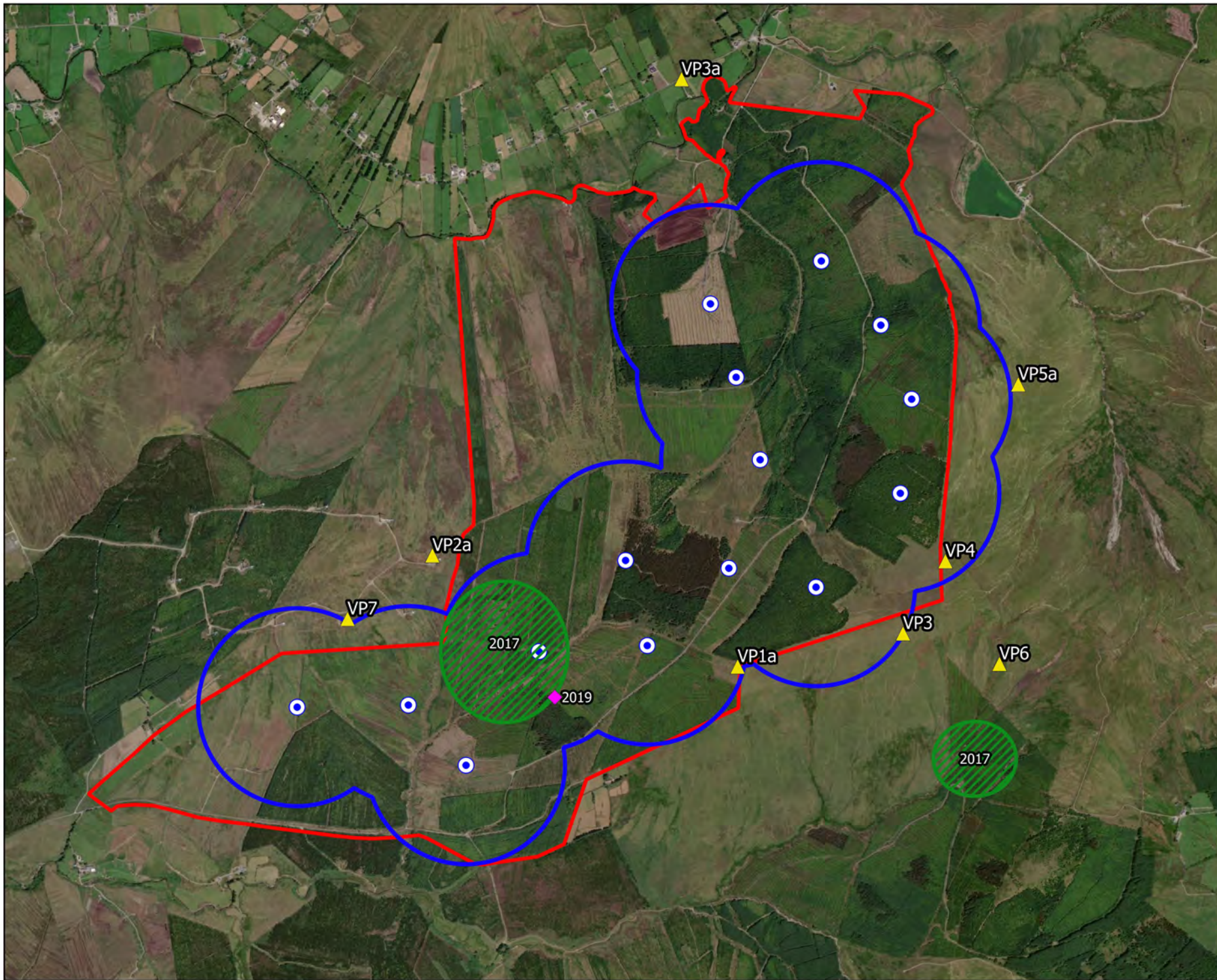
Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.1.21.1
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Scale 1:25000	Date 10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- Possible Territory
- ◆ Nest Location



Drawing Title

Buzzard Territories
Vantage Point Surveys

Project Title

Glenard Windfarm

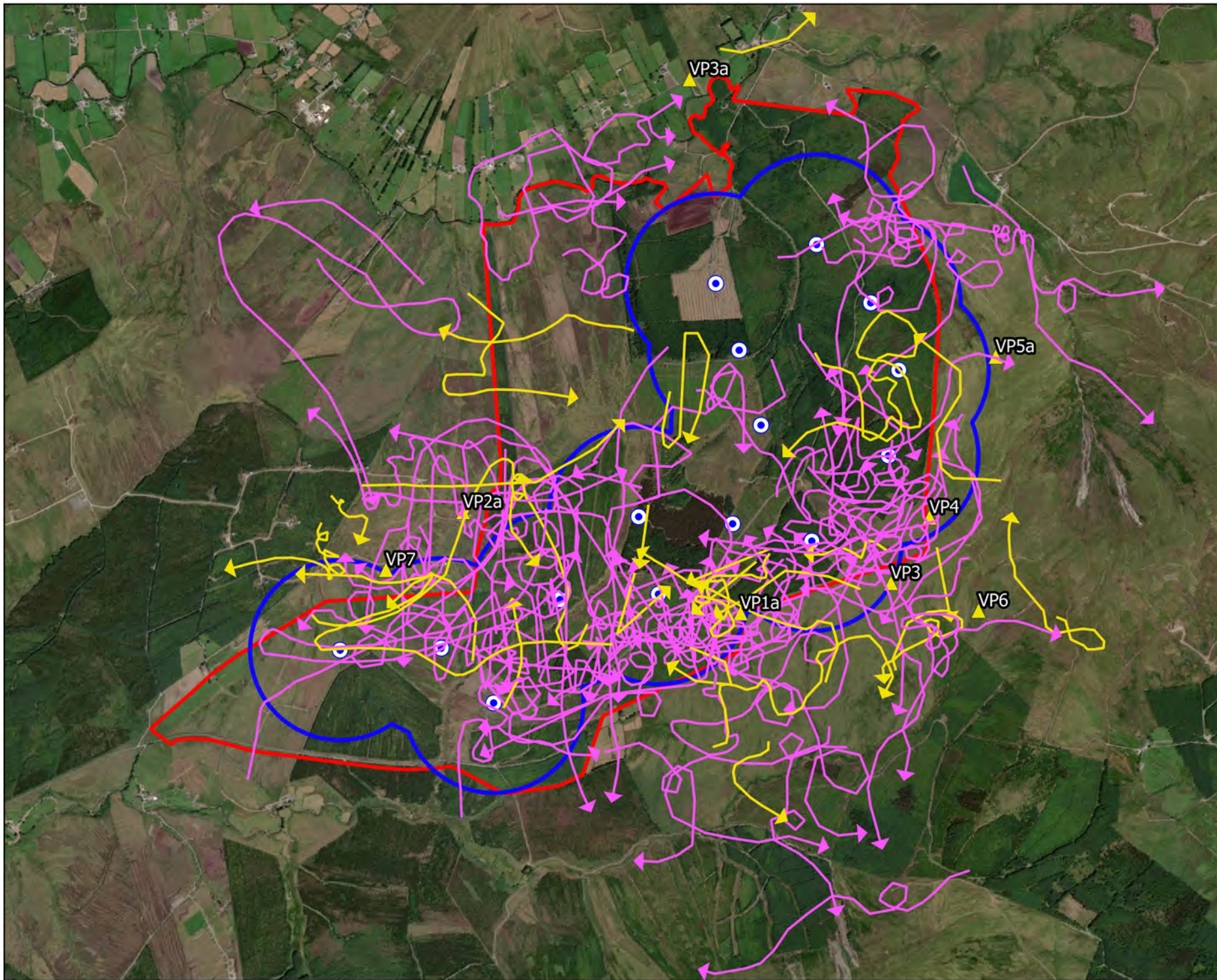
Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.1.21.1.1
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Scale 1:25000	Date 10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight

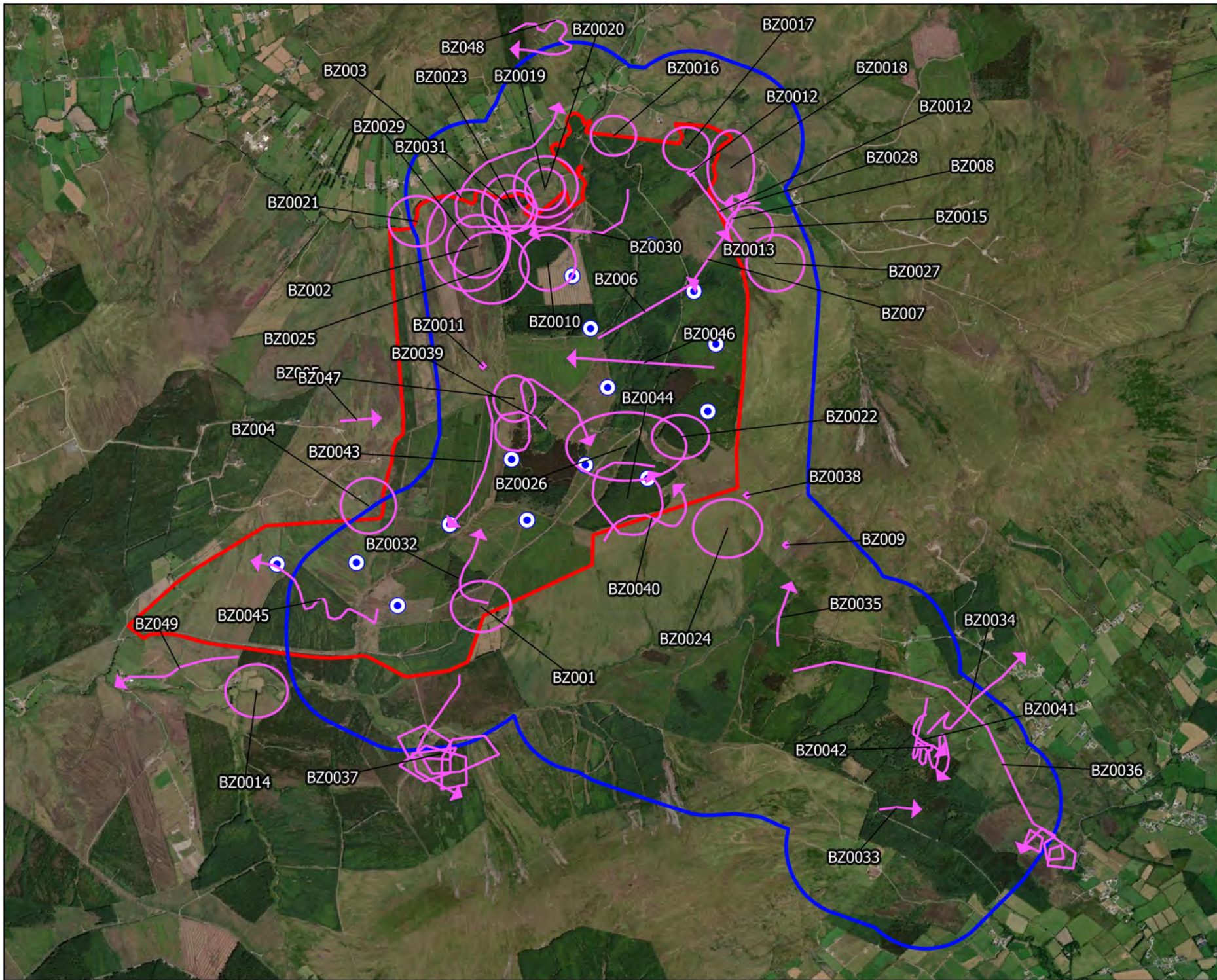


Drawing Title	
Buzzard non-Breeding Season Vantage Point Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.1.21.2
Scale	Date
1:27500	10/11/2021



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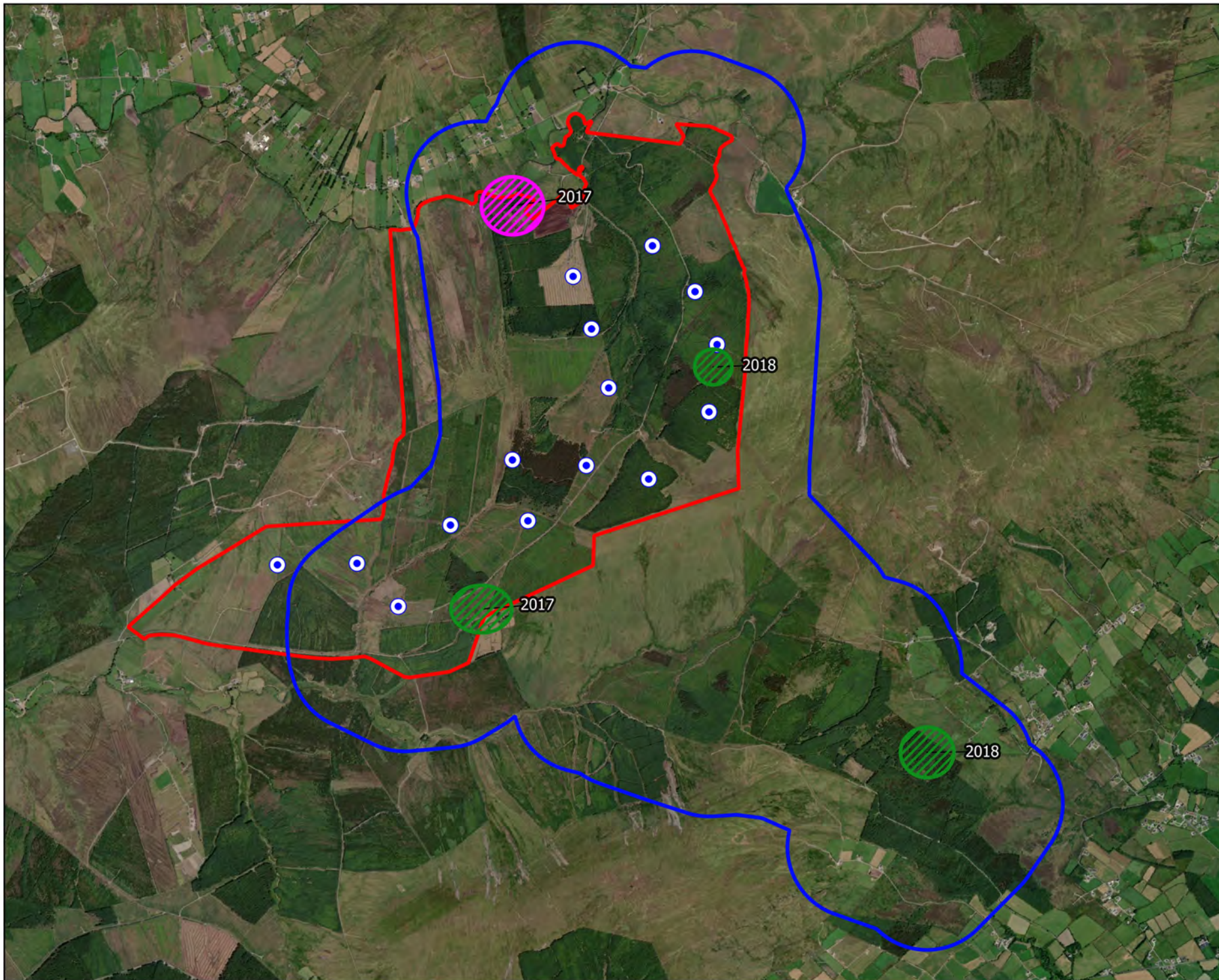
Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observation
- Flightline



Buzzard Observations Breeding Walkover Surveys	
Project Title Glenard Windfarm	
Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.3.9
Scale 1:35000	Date 10/11/2021
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Confirmed Territory
- Possible Territory



Drawing Title

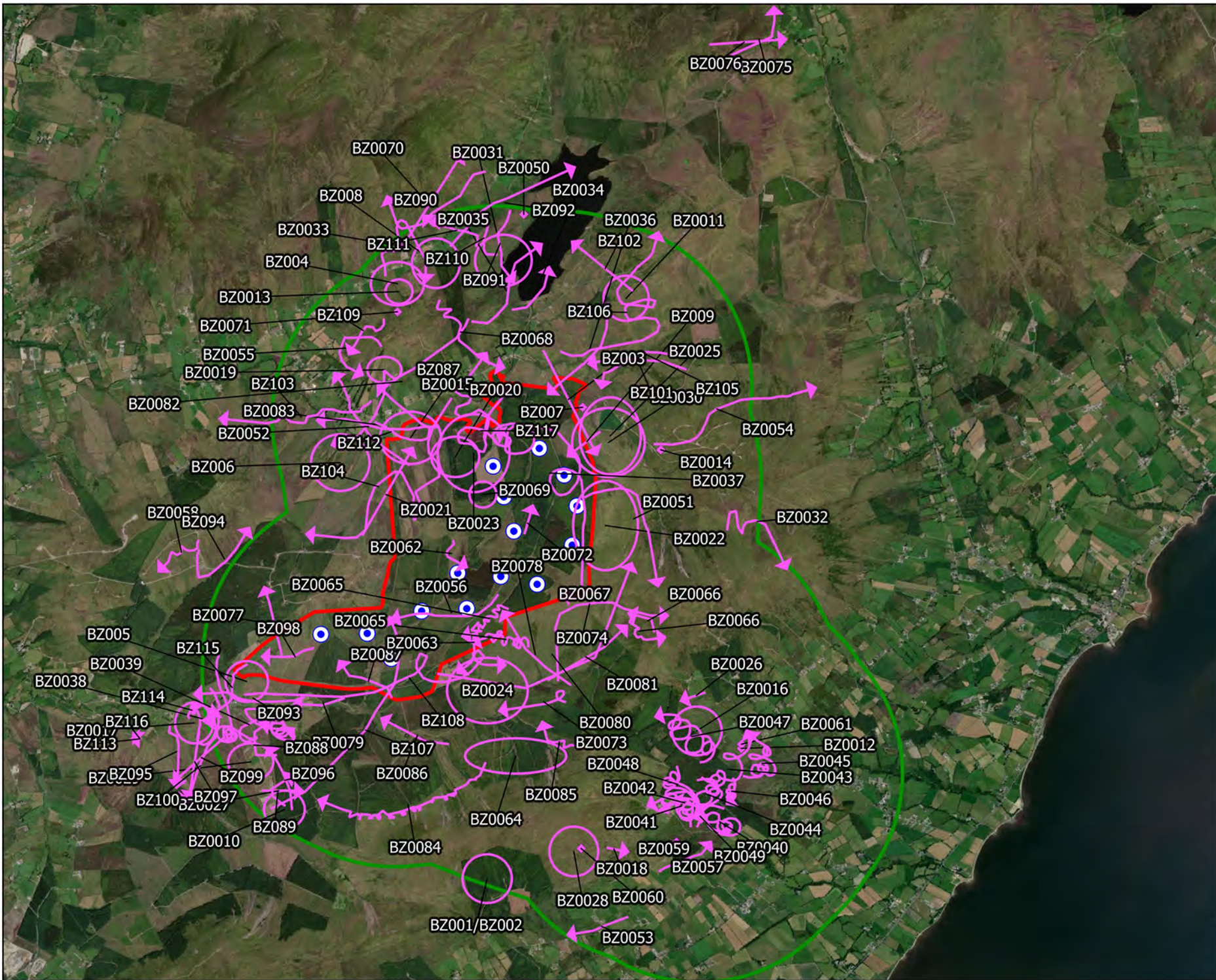
Buzzard Territories
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.3.91
Scale 1:35000	Date 10/11/2021

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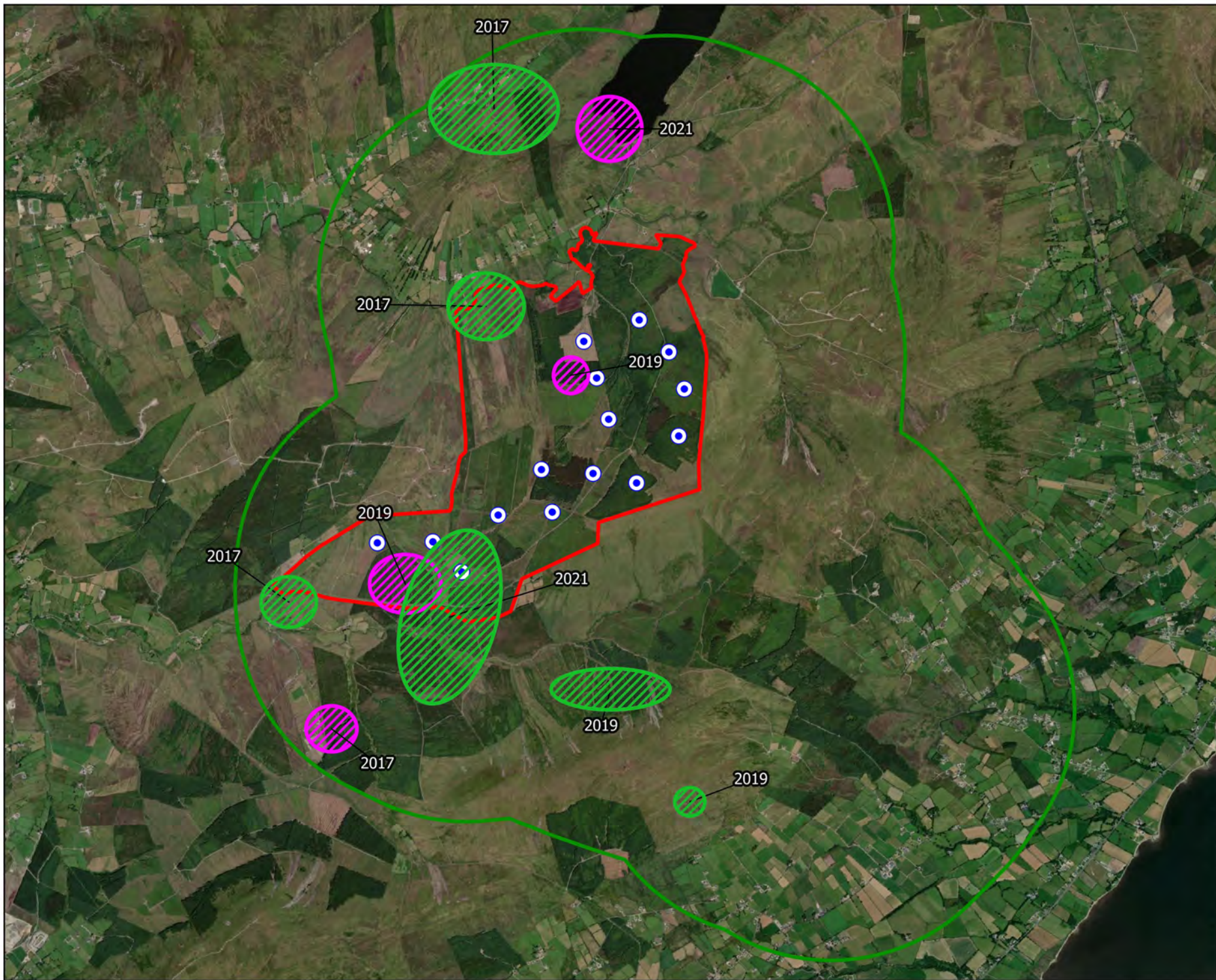
Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline
- ◆ Observation



<p>Drawing Title</p> <p>Buzzard Observations Breeding Raptor Surveys</p>	
<p>Project Title</p> <p>Glenard Windfarm</p>	
<p>Drawn By</p> <p>Patrick Manley</p>	<p>Checked By</p> <p>Padraig Cregg</p>
<p>Project No.</p> <p>190114</p>	<p>Drawing No.</p> <p>Figure 7.4.7</p>
<p>Scale</p> <p>1:60000</p>	<p>Date</p> <p>10/11/2021</p>
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Confirmed Territory
- Possible Territory



Drawing Title

Buzzard Territories
Breeding Raptor Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.4.71

Scale

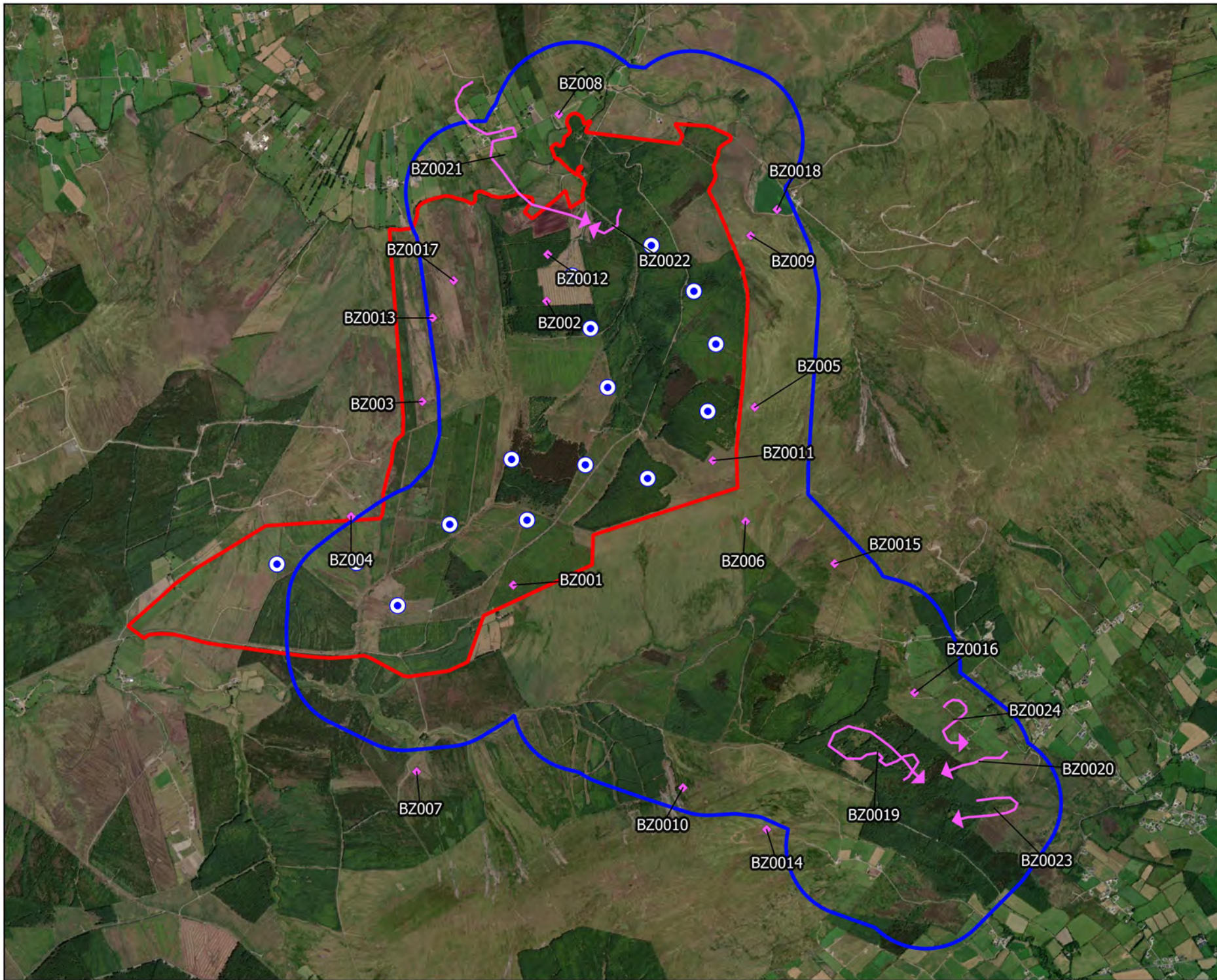
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Date

10/11/2021



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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Flightline
- ◆ Observations

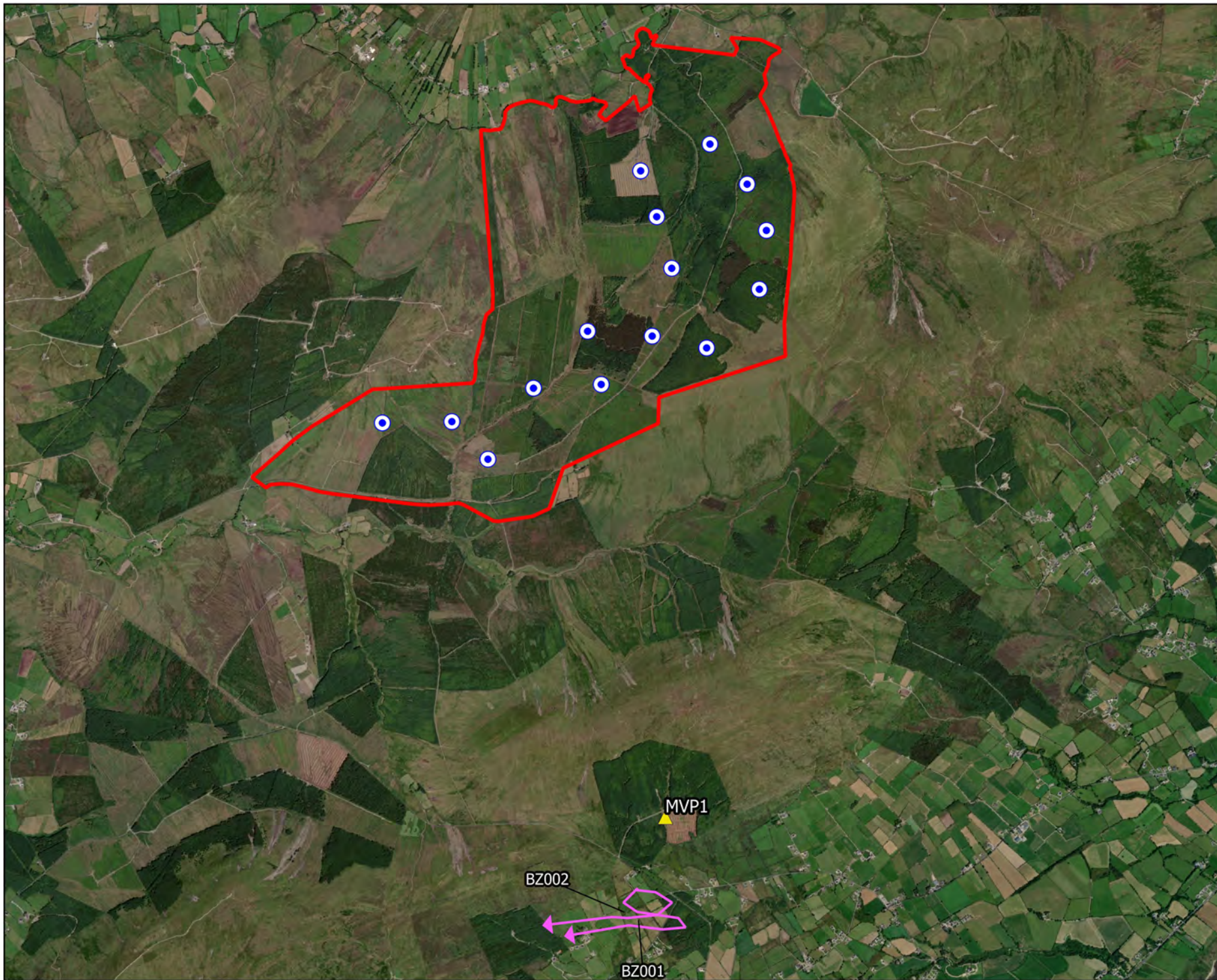


Drawing Title
Buzzard Observations Winter Walkover Surveys
 Project Title
Glenard Windfarm
 Drawn By
Patrick Manley
 Checked By
Padraig Cregg
 Project No.
190114
 Drawing No.
Figure 7.5.12
 Scale
1:35000
 Date
10/11/2021







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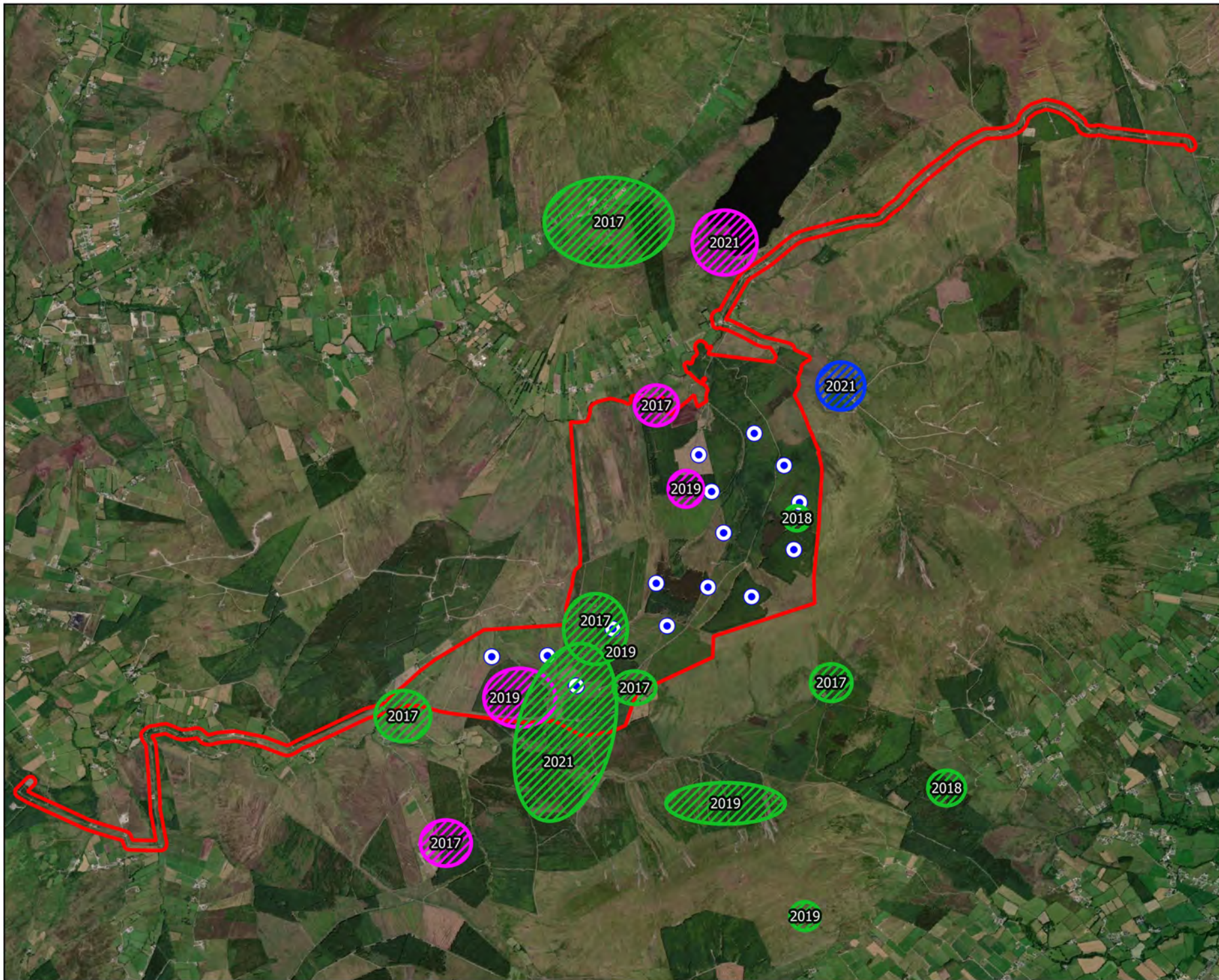
Map Legend

-  Wind Farm Site
-  Turbine Layout
-  Migratory Vantage Point Location
-  Flightline



Drawing Title	
Buzzard Observations Migratory VP Surveys	
Project Title	
Glenard Windfarm	
Drawn By	Checked By
Patrick Manley	Padraig Cregg
Project No.	Drawing No.
190114	Figure 7.9.2
Scale	Date
1:40000	10/11/2021
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Map Legend

- EIAR Site Boundary
- Turbine Layout
- Confirmed Territory
- Probable Territory
- Possible Territory



Drawing Title

Buzzard Territories

Project Title

Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.12.3
Scale 1:50000	Date 10/11/2021

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Table 26 Sparrowhawk Survey Data

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
SH001	23/09/2016	VP2a	Sparrowhawk	1	09:40:00	9	9			WD4, (Conifer plantation) Hunting	Hunting low over young second rotation forestry	HH
SH002	08/10/2016	VP1a	Sparrowhawk	1	08:52:00	31	31	0	0	WD4, (Conifer plantation) Flying between inspection track		AR
SH003	15/10/2016	VP5a	Sparrowhawk	1	10:11:00	55	0	55	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Flying over site at PCH		AR
SH004	05/11/2016	VP1a	Sparrowhawk	1	16:05:00	40	40	0	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Female hunting over sparse forestry	AR
SH005	22/11/2016	VP2a	Sparrowhawk	1	15:31:00	22	17	5	0	WD4, (Conifer plantation) HH3, (Wet heath) Hunting	Observed hunting, flying straight along site boundary	AR
SH006	04/12/2016	VP1a	Sparrowhawk	1	10:02:00	21	13	8	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting along forest edge	Female hunting along forestry edge, perching on tree stump	AR
SH0022	05/03/2017	VP5	Sparrowhawk	1	14:31:00	11	4	7	0	WD4, (Conifer plantation) Hunting	In flight hunting GT. Flew into dense tree cover.	AR
SH007	31/03/2017	VP6	Sparrowhawk	1	16:55:00	62	32	30	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Hunting	Male hunting along young spruce after GT, MP.	AR
SH008	09/09/2017	VP2a	Sparrowhawk	1	18:15:00	32	23	9	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	Adult male in flight along forestry edge. Flew up over trees entering PCH.	AR
SH009	18/11/2017	VP5a	Sparrowhawk	1	15:30:00	32	32		0	WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting	Male in flight along treeline low to the ground. Flying up and over trees out of sight.	AR

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
SH0010	30/11/2017	VP3	Sparrowhawk	1	16:11:00	25	25			WD4, (Conifer plantation) Adult male flying over treetops	Adult male	AOD
SH0011	20/01/2018	VP1a	Sparrowhawk	1	14:30:00	40	0	40	0	WD4, (Conifer plantation) PB2, (Upland blanket bog) In flight	In flight SW within PCH.	AR
SH0012	21/03/2018	VP3	Sparrowhawk	1	14:53:00	47	10	37	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Flew SW, initially at 20-30m in level flight but increased relative to the as it sloped off	Adult female	RW
SH0013	27/06/2018	VP6	Sparrowhawk	1	11:51:00	2	2			WD4, (Conifer plantation) PB2, (Upland blanket bog) Hunting low		AOD
SH0014	28/06/2018	VP1a	Sparrowhawk	1	13:44:00	5	5			WD4, (Conifer plantation) Female flying between wd4		AOD
SH0015	10/07/2018	VP3	Sparrowhawk	1	10:52:00	5	5			PB2, (Upland blanket bog) WD4, (Conifer plantation) Spotted flying fast low to ground towards and into forest 200m W of VP3		ND
SH0016	21/08/2018	VP2a	Sparrowhawk	1	10:56:00	80	80			WD4, (Conifer plantation) Hunting flock of MP		AOD
SH0017	13/09/2018	VP2a	Sparrowhawk	2	08:06:00	1200	1200			WD4, (Conifer plantation) 2 young SH chasing flock of jays with no success for long time		AOD
SH0018	13/09/2018	VP2a	Sparrowhawk	2	11:55:00	200	200			WD4, (Conifer plantation) Same behaviour 2 SH repeatedly chasing flock of 13 jays		AOD
SH0019	20/09/2018	VP4	Sparrowhawk	1	10:15:00	10				PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting		AOD
SH0020	20/09/2018	VP4	Sparrowhawk	1	11:04:00	15	15			PB2, (Upland blanket bog) Caught prey and flew to perch		AOD
SH0021	21/09/2018	VP3	Sparrowhawk	1	07:48:00	10	10			PB2, (Upland blanket bog) GS4, (Wet grassland) Hunting		AOD

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
SH0023	20/10/2018	VP6	Sparrowhawk	1	14:02:00	44	44	0	0	WD4, (Conifer plantation) Hunting	Flying low over plantation south. Male. Mobbed by HC	AR
SH0024	29/11/2018	VP3	Sparrowhawk	1	09:09:00	150	100			WD4, (Conifer plantation) Soaring over wd4 mobbed by 2 ravens		AOD
SH0025	20/12/2018	VP2	Sparrowhawk	1	13:52:00	5	5			HH4, (Montane heath) WD4, (Conifer plantation) Male hunting snipe low pursuit		AOD
SH0026	15/01/2019	VP2	Sparrowhawk	1	15:58:00	10	10			WD4, (Conifer plantation) HH4, (Montane heath) Hunting low		AOD
SH0027	25/02/2019	VP1	Sparrowhawk	1	17:44:00	3	3			WD4, (Conifer plantation) Foraging over trees	Adult female	AOD
SH0028	26/03/2019	VP3	Sparrowhawk	1	09:26:00	2	2			WD4, (Conifer plantation) Flying low	Female adult	AOD
SH0029	28/03/2019	VP6	Sparrowhawk	1	07:27:00	12	5			WD4, (Conifer plantation) GS4, (Wet grassland) Hunting same flock of MP	Adult female	AOD
SH0030	10/04/2019	VP1a	Sparrowhawk	2	09:14:00	188		188		PB3, (Lowland blanket bog) WD4, (Conifer plantation) HH3, (Wet heath) Two SH females circling in a mutual spiral 700m SW of VPO. Climbing high- aggression with dives by one on the other. Territorial defines by one female. End in fast flight chase of one after the other in W/NW direction and away out of view, over forestry edge.	Female	ND
SH0031	19/04/2019	VP1a	Sparrowhawk	1	19:43:00	280		280		PB2, (Upland blanket bog) WD4, (Conifer plantation) flew east, beats and glides at 25m plus travelling. Then circled to north.		ND
SH0032	28/06/2019	VP6	Sparrowhawk	1	13:22:00	62		62		WD4, (Conifer plantation) PB2, (Upland blanket bog) HH3, (Wet	Flew from direction of Crocknanure Forest,	ND

Vantage Point Surveys												
Map Ref.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Band 1 (0-25m)	Band 2 (25-175m)	Band 3 PCH (175m+)	Notes on habitat and activity	Comments	Surveyor
										heath) Flew from direction of Crocknanure forest, slow at first then travelled on north and to west, possibly hunting. Likely breeding and nest at Crocknanure	slow at first then travelled on north and to west, possibly hunting. Likely breeding and nest at Crocknanure	
SH0033	23/07/2019	VP5	Sparrowhawk	1	10:43:00	54	12	42		PB2, (Upland blanket bog) WD4, (Conifer plantation) GA1, (Improved agricultural grassland) Travelling	Female or juv.	JB
SH0034	15/08/2019	VP6	Sparrowhawk	1	11:25:00	40	40			WD4, (Conifer plantation) GS4, (Wet grassland) hunting		JK
SH0035	21/08/2019	VP4	Sparrowhawk	1	18:40:00	3	3			WD4, (Conifer plantation) Hunting		JK
SH0036	22/08/2019	VP3	Sparrowhawk	2	18:02:00	120	120			WD4, (Conifer plantation) Play-fighting & mock hunting Ravens.		JK
SH0037	22/08/2019	VP3	Sparrowhawk	1	20:47:00	25	25			WD4, (Conifer plantation) Travelling.		JK
SH0038	13/09/2019	VP2	Sparrowhawk	1	10:45:00	15	15			WD4, (Conifer plantation) Hunting MP's	AD/F	JK

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
SH039	VP2	09/02/2021	13:15	Sparrowhawk	1	40	40				raised bog; travelling, male	MM
SH040	VP3	11/02/2021	14:03	Sparrowhawk	1	19	19				conifer plantation and raised bog; travelling low and fast into plantation, male	DM
SH041	VP5	18/02/2021	14:21	Sparrowhawk	1	236		184	52		conifer plantation and raised bog; circling mobbed by HC, female	DM

Vantage Point Surveys 2021												
Map Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	PCH (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
H042	VP5	04/03/2021	15:19	Sparrowhawk	1	209			209		raised bog and conifer plantation; circling, mobbed HY m, female	DM
SH043	VP6	08/03/2021	15:10	Sparrowhawk	1	134		12	122		raised bog; circling at circa 70m, female	DM
SH044	VP6	15/05/2021	10:29	Sparrowhawk	1	29	29	0	0	0	bogs and conifer plantation; flying	DM
SH045	VP5	24/05/2021	10:26	Sparrowhawk	1	66	0	66	0	0	conifer plantation; female circling over forestry	DM
SH046	VP3	29/05/2021	09:41	Sparrowhawk	1	28	28	0	0	0	improved agricultural grassland and conifer plantation; flying low and fast, male	DM
SH047	VP3	11/06/2021	10:32	Sparrowhawk	1	243	0	37	206	0	conifer plantation; circling, male	DM
SH048	VP2	13/06/2021	11:50	Sparrowhawk	2	210	0	0	210	0	bogs; soaring, hunting	MM
SH049	VP3	13/07/2021	10:19	Sparrowhawk	1	69	0	8	61	0	conifer plantation; circling, female	DM
SH050	VP3	30/08/2021	11:04	Sparrowhawk	1	16	16	0	0	0	improved agricultural grassland; hunting, juv female hunting	DM
SH051	VP7	25/09/2021	15:35	Sparrowhawk	1	300	0	0	300	0		MM
SH052	VP3	28/09/2021	14:15	Sparrowhawk	1	45	45	0	0	0	bogs and conifer plantation; flew near river mobbed by 2 HC	MM
SH053	VP3	28/09/2021	17:45	Sparrowhawk	1	40	40	0	0	0	improved agricultural grassland; flew low and fast over field, starling and thrushes scatter in fear	MM
SH054	VP3	28/09/2021	19:05	Sparrowhawk	1	50	30	20	0	0	bogs and improved agricultural grassland; flew across road and landed on a tree, mobbed by 2 HC	MM
SH055	VP3	28/09/2021	19:35	Sparrowhawk	1	120	0	120	0	0	bogs and conifer plantation; flew over forest	MM
SH056	VP1	30/09/2021	17:40	Sparrowhawk	1	11	11	0	0	0	conifer plantation; travelling, ad female past VP in s direction	DM

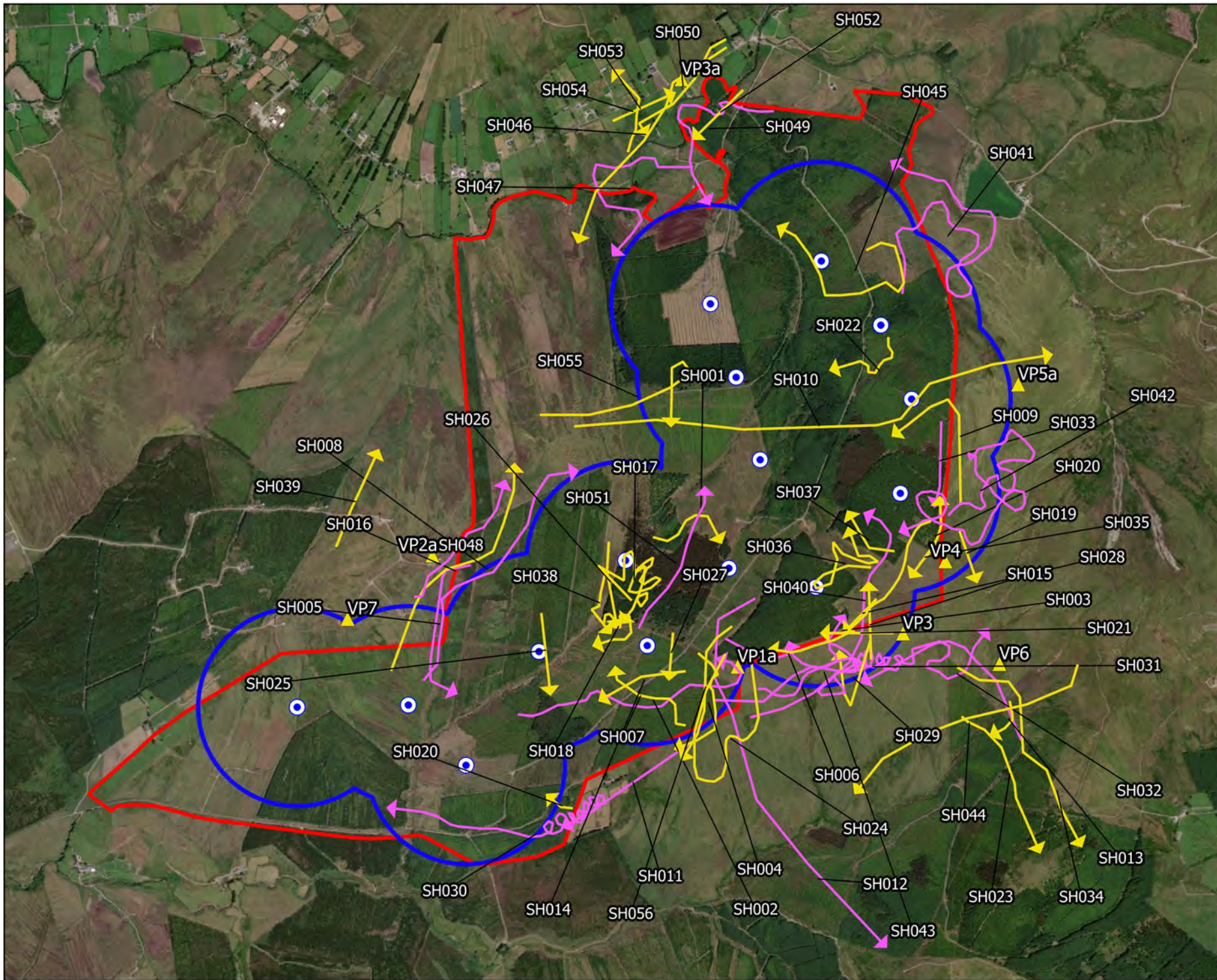
Breeding Walkover Surveys							
Map Ref. No.	Survey Date	Time	Species	No. of birds	Habitat and Activity	Comments	Surveyor
SH001	09/04/2017	09:41	Sparrowhawk	1	WD4, (Conifer plantation) Displaying	Courtship and display; Probable breeding	AR
SH002	09/04/2017	15:11	Sparrowhawk	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
SH003	15/04/2017	11:49	Sparrowhawk	1	WD4, (Conifer plantation) Hunting	Suitable nesting habitat; Possible breeder	AR
SH004	29/04/2017	13:30	Sparrowhawk	1	WD4, (Conifer plantation) Carrying nest material	Nest building or excavating nest hole; Probable breeding	AR
SH005	29/04/2017	10:59	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
SH006	06/05/2017	11:55	Sparrowhawk	1	WD4, (Conifer plantation) Carrying prey	Suitable nesting habitat; Possible breeder	AR
SH0020	13/05/2017	10:59	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
SH007	20/05/2017	08:15	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
SH008	24/06/2017	10:45	Sparrowhawk	1	WS5, (Recently felled woodland) Hunting	Suitable nesting habitat; Possible breeder	AR
SH009	24/06/2017	10:48	Sparrowhawk	1	WD4, (Conifer plantation) Calling	Suitable nesting habitat; Possible breeder	AR
SN0010	07/07/2017	12:20	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Recently fledged young/downy young; Confirmed breeding	AR
SN0011	29/07/2017	17:01	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Recently fledged young/downy young; Confirmed breeding	AR
SH0012	05/04/2018	14:50:00	Sparrowhawk	1	WD4, (Conifer plantation) soaring over WD4	Male	AOD
SH0013	07/04/2018	14:31:00	Sparrowhawk	1	WD4, (Conifer plantation) Female flying through WD4 just above treetops	Female flying through WD4 above trees	AOD
SH0014	07/04/2018	15:50:00	Sparrowhawk	1	Male hunting low over grassland	male hunting low	AOD
SH0015	20/06/2018	13:20:00	Sparrowhawk	1	WD4, (Conifer plantation) Female flushed from WD4		AOD
SH0016	21/06/2018	18:00:00	Sparrowhawk	1	Male flying low through trees on site		AOD
SH0017	28/06/2018	12:02:00	Sparrowhawk	1	WD4, (Conifer plantation) Male flying over treetops then mobbing a perched buzzard		AOD
SH0018	28/06/2018	15:06:00	Sparrowhawk	1	WD4, (Conifer plantation) Flying low on site. Hunting		AOD
SH0019	20/07/2018	14:49:00	Sparrowhawk		WD4, (Conifer plantation) Adult and juvenile(s) heard in begging calls from Conifers.	Confirmed Breeding/ Nest Site	AOD

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
SH001	14/04/2017	08:21:00	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Courtship and display; Probable breeding	AR
SH002	16/04/2017	09:59:00	Sparrowhawk	1	WD4, (Conifer plantation) Perched	Suitable nesting habitat; Possible breeder	AR
SH003	14/05/2017	13:35:00	Sparrowhawk	1	WS5, (Recently felled woodland) Perched	Suitable nesting habitat; Possible breeder	AR
SH004	18/06/2017	11:40:00	Sparrowhawk	1	WD4, (Conifer plantation) Calling	nest with young seen or heard; Confirmed breeding	AR
SH005	25/06/2017	13:40:00	Sparrowhawk	1	WD4, (Conifer plantation) Aggressive behaviour	Agitated behaviour or anxiety calls; Probable breeding	AR
SH006	22/07/2017	10:36:00	Sparrowhawk	2	WD4, (Conifer plantation) Aggressive behaviour	nest with young seen or heard; Confirmed breeding	AR
SH007	22/05/2018	15:01:00	Sparrowhawk	1	PB, (Bogs) WD4, (Conifer plantation)	In flight.	JOS
SH008	10/07/2018	12:55:00	Sparrowhawk	1	PB2, (Upland blanket bog) Female hunting N. side of reservoir		AOD
SH009	12/07/2018	09:12:00	Sparrowhawk	1	WD4, (Conifer plantation) Adult female flying over wd4 carrying food	Near 2017 nest site but no nest found	AOD
SH0010	17/07/2018	14:36:00	Sparrowhawk	1	PB2, (Upland blanket bog) Adult female hunting starling flock west of site.		AOD
SH0011	17/04/2019	14:50:00	Sparrowhawk	1	WD4, (Conifer plantation) HH3, (Wet heath) HH1, (Dry siliceous heath) Female. High, flight, soaring, territorial	Ture and SE Crackanure (C4728)	JB
SH0012	25/04/2019	10:55:00	Sparrowhawk	1	WD4, (Conifer plantation) HH3, (Wet heath) Sparrowhawk Female flew along forest edge and into forest	possible SH breeding site	JB
SH0013	01/05/2019	10:48:00	Sparrowhawk	1	WD4, (Conifer plantation) HH3, (Wet heath) Sparrowhawk flew across gap, carrying food item	indication of breeding nearby	JB
SH0014	12/05/2019	13:05:00	Sparrowhawk	1	WD4, (Conifer plantation) Flying carrying food: Female Sparrowhawk flew 30m above ground, over immature, then high forest, carrying food item, first direct in NE direction, then irregular circling while moving NE, finally flew around in a SE direction in decent within high canopy, out of view. Indicates nest in breeding territory	breeding territory breeding site	ND
SH0018 (NEST)	25/07/2019		Sparrowhawk		4 probable SH nests 10/15m apart. One with MG feathers below it. Feathers were not fresh. There was a small amount	4 probable SH nests 10/15m apart. One with MG feathers below it. Feathers were not fresh.	JB

Breeding Raptor Surveys							
Map Ref. No.	Survey Date	Time of observation	Species	No. of birds	Habitat and Activity	Comments	Surveyor
					of wash near the feathers but not close enough for the nest to be currently in use. Very early breeders or failed nesting attempt	There was a small amount of wash near the feathers but not close enough for the nest to be currently in use. Very early breeders or failed nesting attempt	
SH0019	27/07/2019	11:24:00	Sparrowhawk	1	WD4, (Conifer plantation) circling over forest on Crockanure, ascending and soaring to 150m over ground (3mins) before making long direct glide and descent northward to hunt along forest edge	SH breeding site in this area	ND
SH0015	31/07/2019	14:58:00	Sparrowhawk	1	WD4, (Conifer plantation) female SH seen in circling flight 20m high at breeding site. Disturbed by a remote-controlled survey plane.	An un-manned remote-control survey plane	JB
SH0016	31/07/2019	15:18:00	Sparrowhawk	1	WD4, (Conifer plantation) male SH flew over WD4 6m high carrying prey / food to breeding site area.	male SH flew over WD4 6m high carrying prey / food to breeding site area.	JB
SH0017	31/07/2019	15:40:00	Sparrowhawk	2	WD4, (Conifer plantation) begging calls from two juvs heard from conifer forest	begging calls from two juvs heard from conifer forest	JB
SH018	22/04/2021	07:45	Sparrowhawk	1	cutover bog, hunting, male SH attacked MP but missed it		MM
SH019	22/04/2021	10:25	Sparrowhawk	1	cutover bog, soaring over site		MM
SH020	22/04/2021	11:45	Sparrowhawk	1	conifer plantation, soaring over forest		MM
SH021	28/04/2021	09:50	Sparrowhawk	1	reservoirs, soaring, mobbed by 5 MP		MM
SH022	28/04/2021	11:45	Sparrowhawk	1	amenity grassland (improved), mobbed by HC over the hill		MM
SH023	28/04/2021	14:25	Sparrowhawk	1	reservoirs, mobbed by HC, soaring		MM
SH024	26/05/2021	13:01	Sparrowhawk	1	improved agricultural grassland and conifer plantation, adult male flew into conifer plantation		DM
SH025	12/06/2021	11:01	Sparrowhawk	1	raised bog, flying, male - mobbed by HC		DM
SH026	13/06/2021	11:52	Sparrowhawk	1	bogs and conifer plantation, travelling, female		DM
SH027	10/07/2021	12:27	Sparrowhawk	1	raised bog, soaring over hill then went down towards fields		MM

Winter Walkover Surveys							
Map Ref.	Date	Time of Observation	Species	No. of birds	Feeding/Roosting	Notes on habitat and activity	Surveyor
SH001	18/12/2016	10:15:00	Sparrowhawk	1	Adult male	WD4, (Conifer plantation) Hunting, chasing after wren	AR
SH002	22/01/2017	09:58:00	Sparrowhawk	1	Adult male	WD4, (Conifer plantation) Hunting, caught BT in talons	AR
SH003	18/03/2017	10:16:00	Sparrowhawk	1		WD4, (Conifer plantation) Hunting GT Along Inspection track	AR
SH004	15/10/2017	11:20:00	Sparrowhawk	1		WD4, conifer Plantation, In flight along forest break,	AR
SH005	16/12/2017	10:35:00	Sparrowhawk	1		WD4, (Conifer plantation) Hunting GT	AR
SH006	17/12/2017	09:43:00	Sparrowhawk	1		Recently felled woodland	AR
SH007	28/01/2018	11:21:00	Sparrowhawk	1		In Flight	AR

Incidental Observations					
Date	Survey Type	Species	No. of Birds	Notes	Surveyor
17/01/2017	Upon arrival at site for VP5	Sparrowhawk		Hunting along forestry edge	AR
25/02/2017	On route to VP2	Sparrowhawk		In flight along forest ride	AR
16/06/2017	Outside Glenard site 500m buffer	Sparrowhawk		Hunting along Illies Hill	AR
12/08/2017	On route to VP 2	Sparrowhawk		Adult male hunting	AR
09/09/2017	On route to VP 2	Sparrowhawk		Adult male perched	AR
05/10/2017	HH Roost Survey	Sparrowhawk		No HH Activity. SH hunting along forest edge. Sn rose from heather	AR
21/10/2017	HH Roost Survey	Sparrowhawk	1	Hunting	AR
17/11/2017	HH Roost Survey	Sparrowhawk		1 Sparrowhawk in flight	AR
15/12/2017	HH Roost Survey	Sparrowhawk	1		AR
21/01/2018	During waterfowl count	Sparrowhawk			AR
15/02/2018	VP	Sparrowhawk	1	MALE flew across track in on site	AOD
24/03/2018	Waterfowl Survey	sparrowhawk			AR



Map Legend

- Wind Farm Site
- Turbine Layout
- 500m Turbine Buffer
- ▲ Vantage Point Location
- PCH Flight
- Non-PCH Flight



Drawing Title
**Sparrowhawk Observations
Vantage Point Surveys**

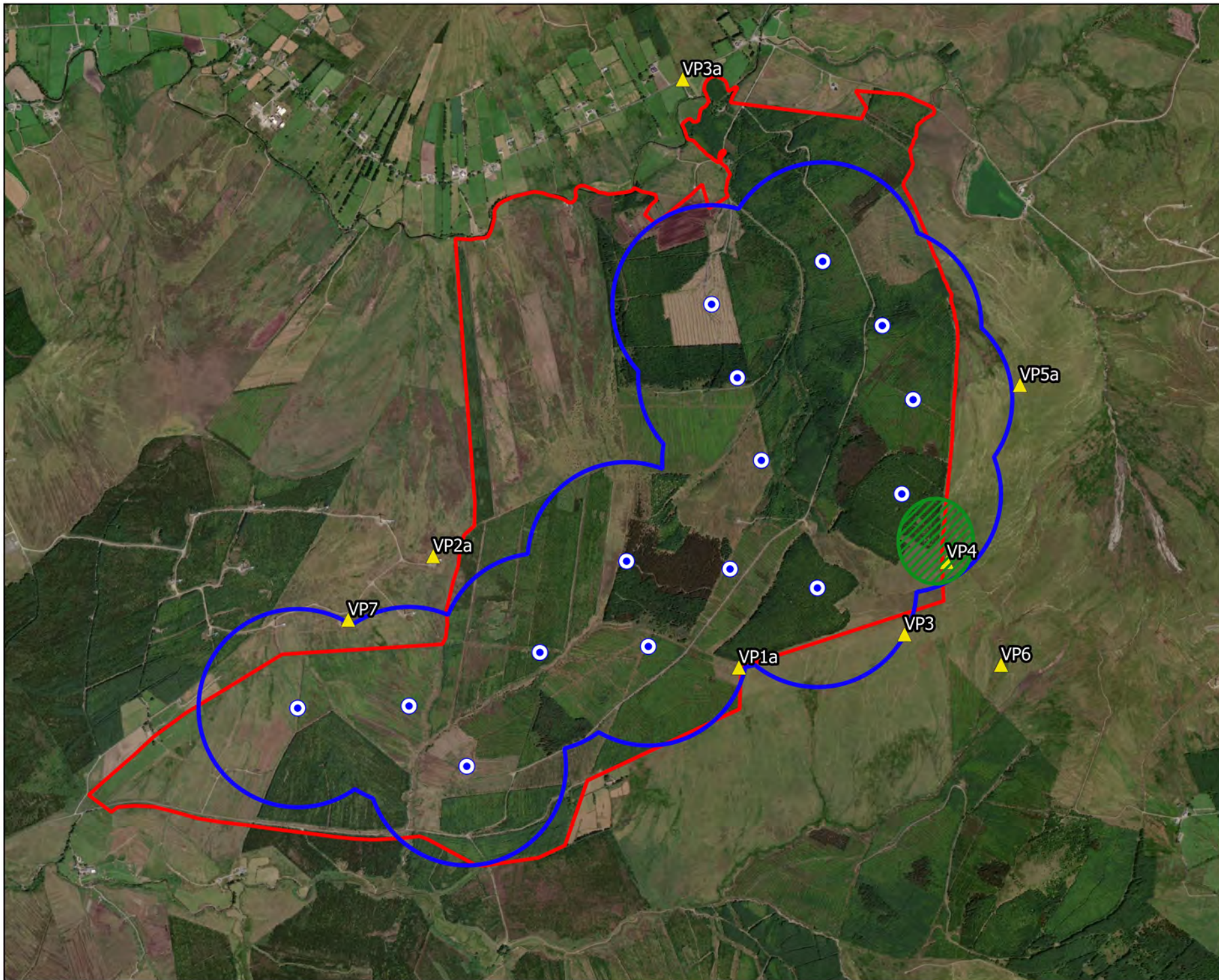
Project Title
Glenard Windfarm

Drawn By Patrick Manley	Checked By Padraig Cregg
Project No. 190114	Drawing No. Figure 7.1.22
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Map Legend

-  Wind Farm Site
-  Turbine Layout
-  500m Turbine Buffer
-  Vantage Point Location
-  Possible Territory



Drawing Title

Sparrowhawk Territories
Vantage Point Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

190114

Drawing No.

Figure 7.1.22.1

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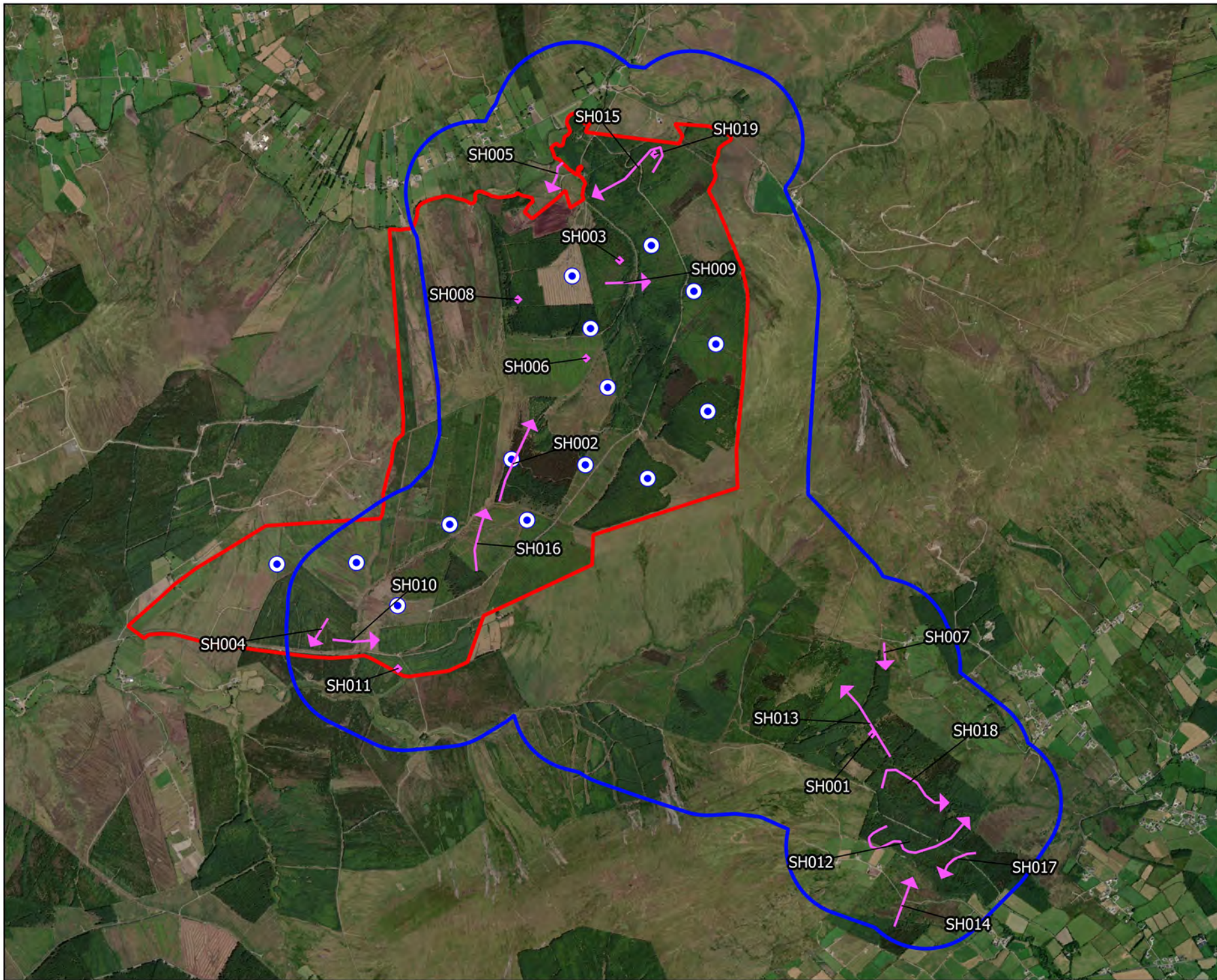
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observation
- Flightline



Drawing Title
**Sparrowhawk Observations
 Breeding Walkover Surveys**

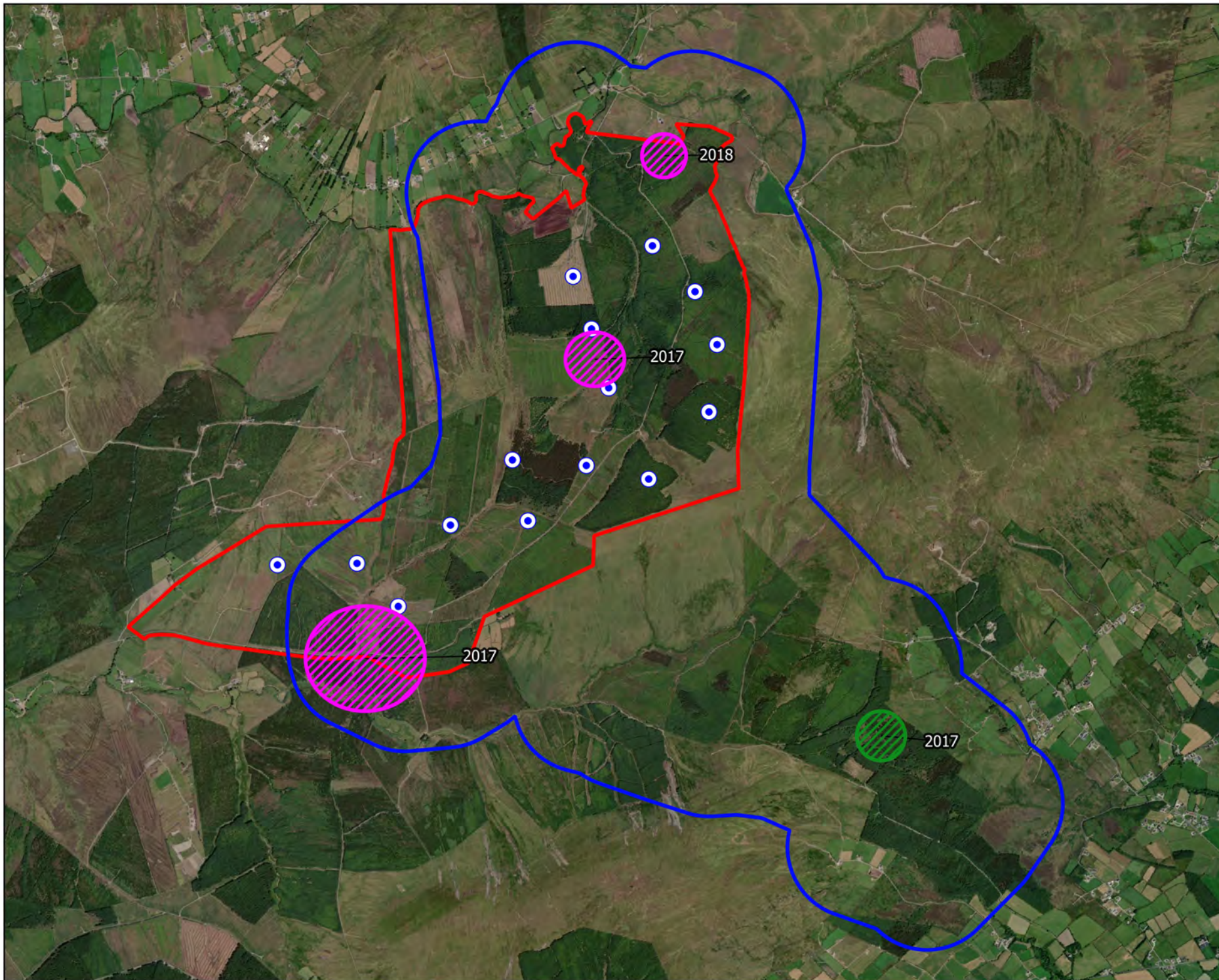
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Drawn By Patrick Manley	Checked By Padraig Cregg
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Project No. 190114	Drawing No. Figure 7.3.10
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- Confirmed Territory
- Possible Territory



Drawing Title

Sparrowhawk Territories
Breeding Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

Padraig Cregg

Project No.

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Drawing No.

Figure 7.3.10.1

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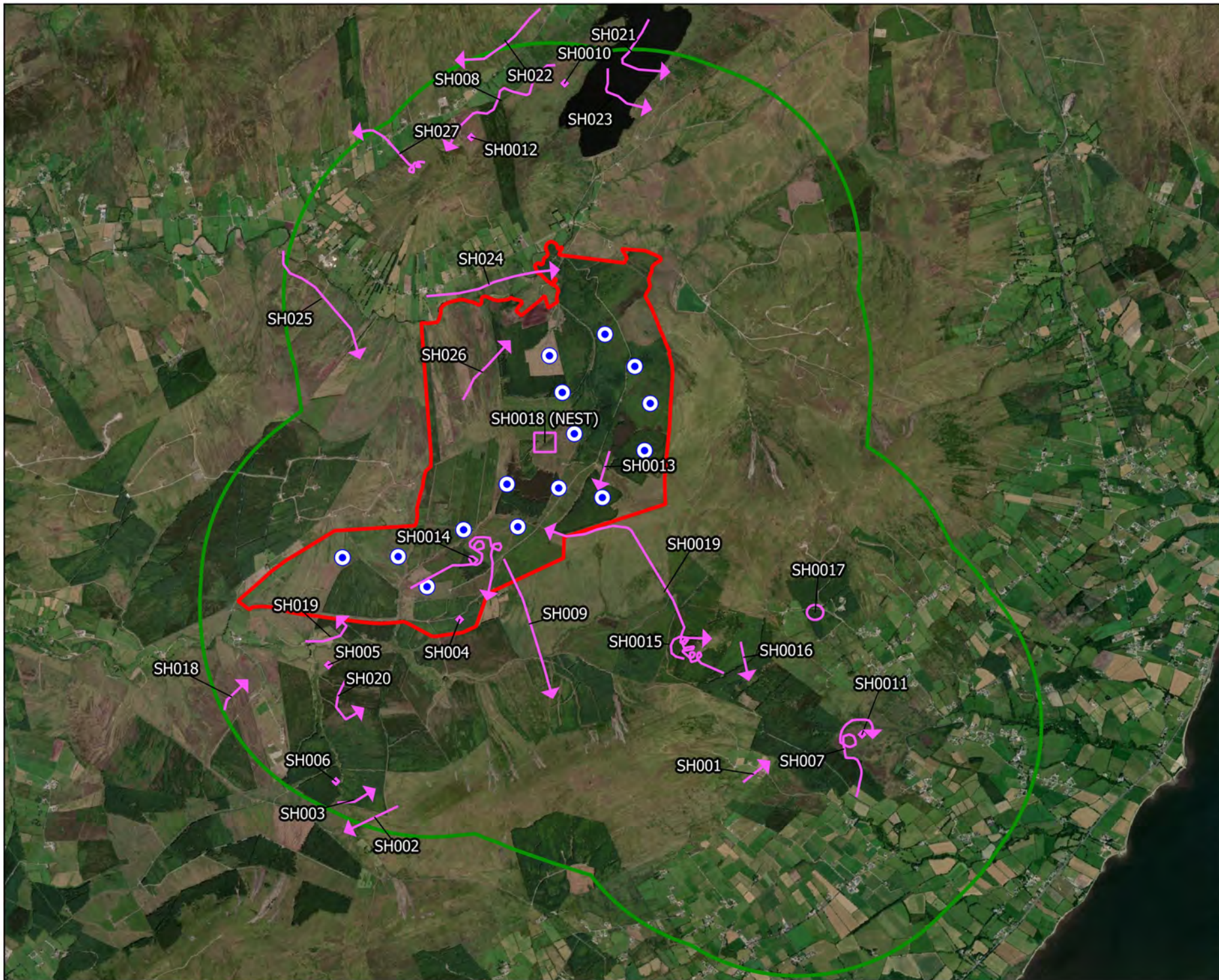
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Flightline
- ◆ Observation



Drawing Title

Sparrowhawk Observations
Breeding Raptor Surveys

Project Title

Glenard Windfarm

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Drawing No.

Figure 7.4.8

Scale

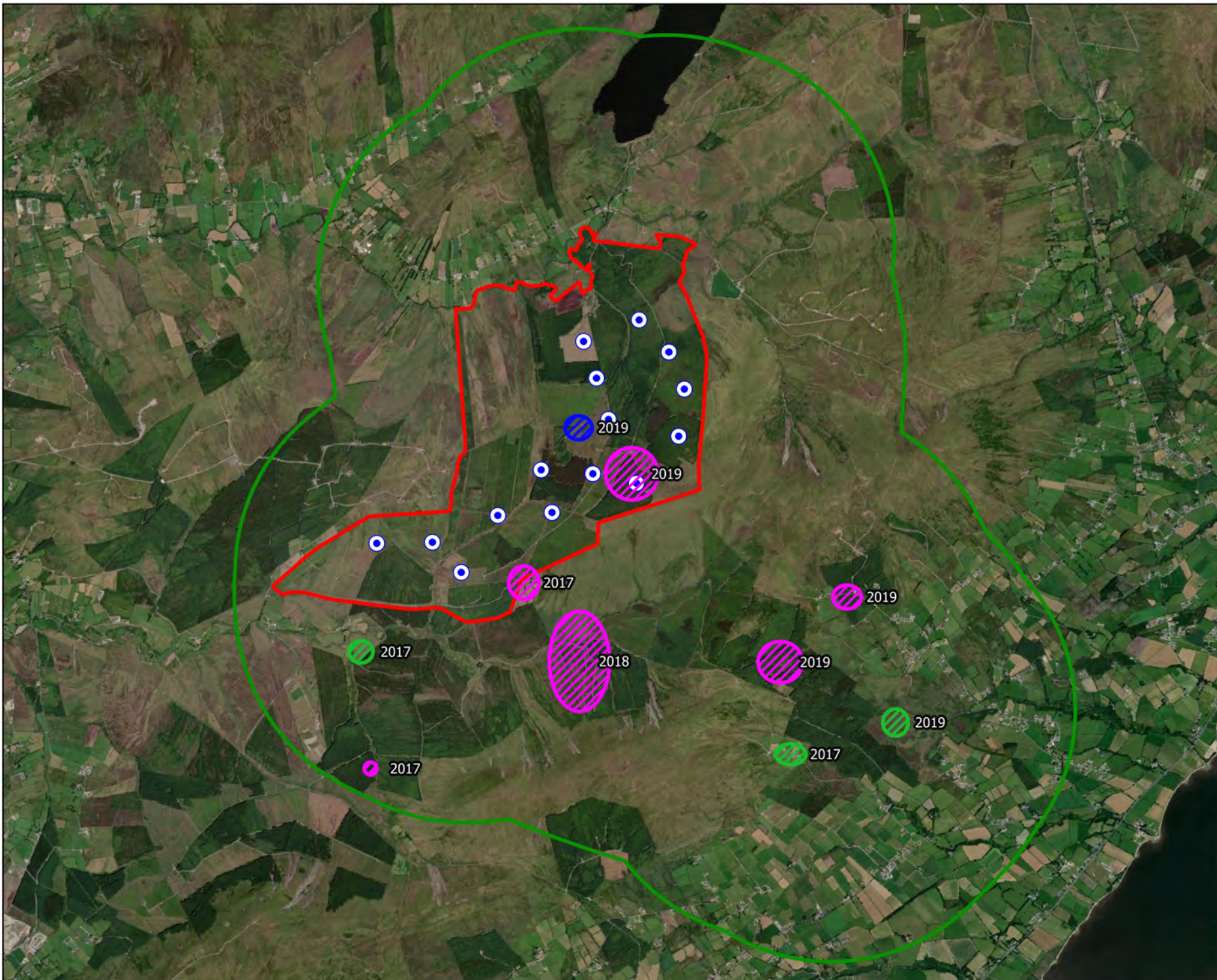
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Map Legend

- Wind Farm Site
- Turbine Layout
- Breeding Raptor Survey Area
- Confirmed Territory
- Probable Territory
- Possible Territory



Drawing Title

Sparrowhawk Territories
Breeding Raptor Surveys

Project Title

Glenard Windfarm

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Checked By

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Project No.

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Drawing No.

Figure 7.4.8.1

Scale

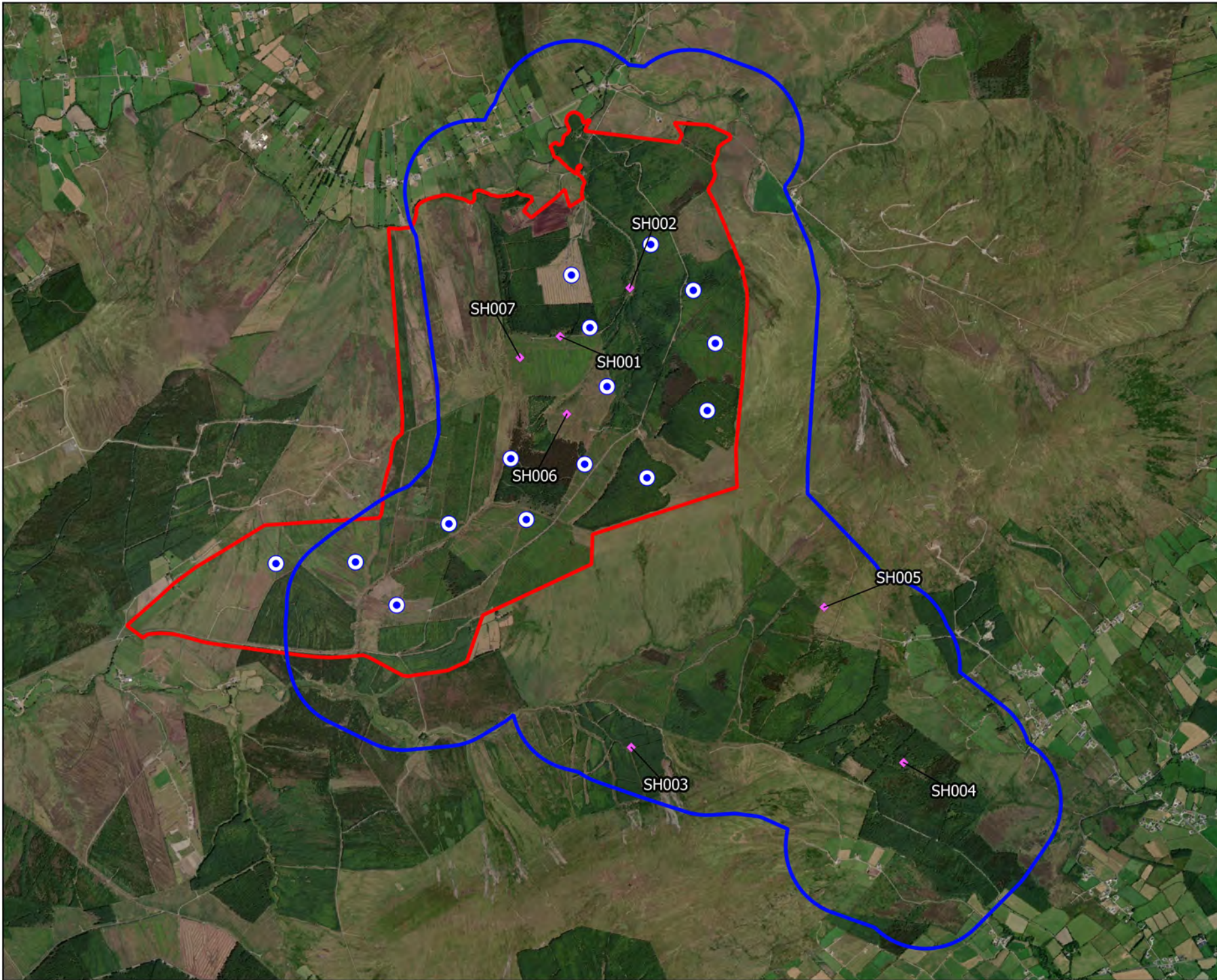
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Map Legend

- Wind Farm Site
- Turbine Layout
- Walkover Survey Area
- ◆ Observations



Drawing Title

Sparrowhawk Observations
Winter Walkover Surveys

Project Title

Glenard Windfarm

Drawn By

Patrick Manley

Checked By

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Project No.

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Drawing No.

Figure 7.5.13

Scale

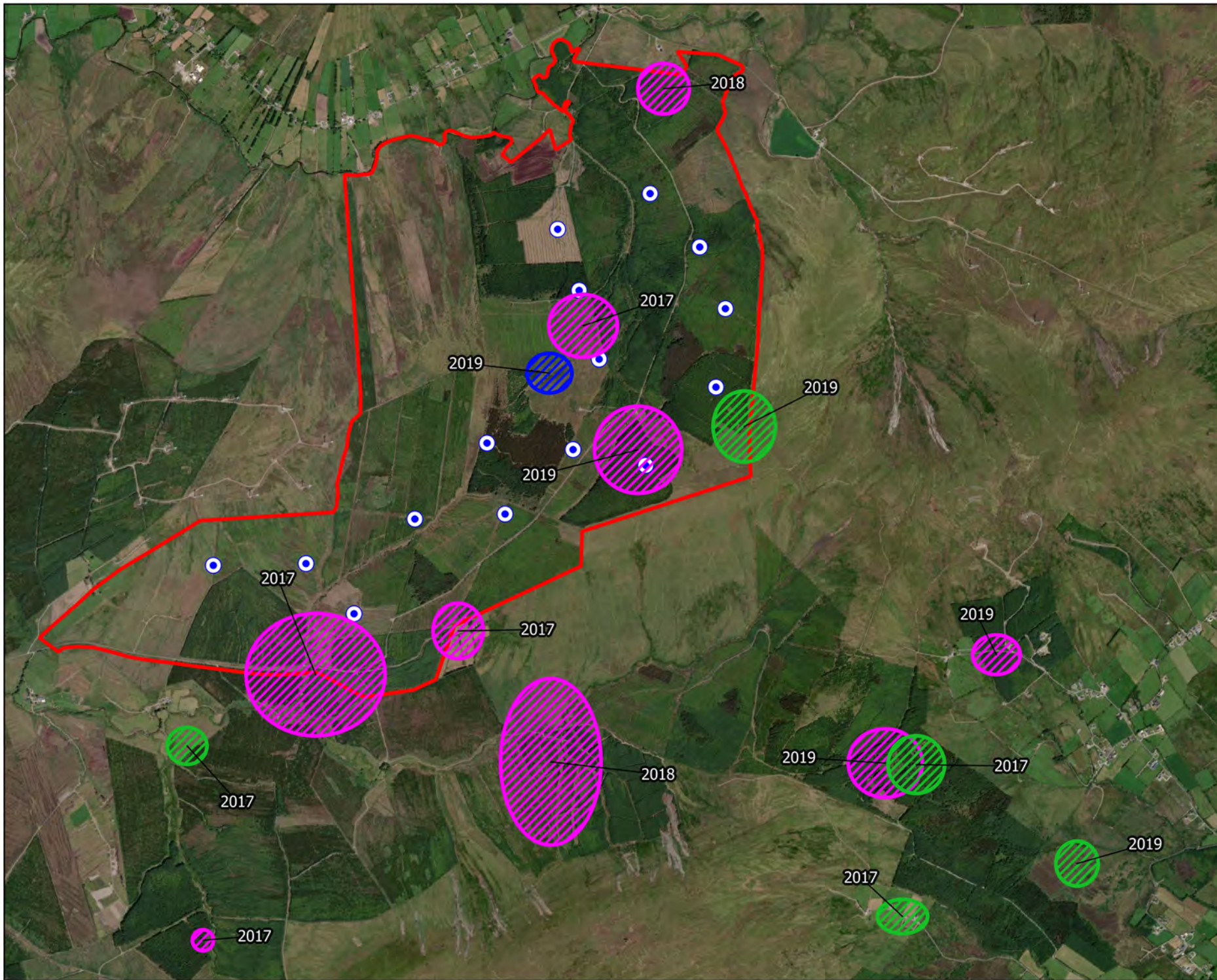
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Map Legend

-  Wind Farm Site
-  Turbine Layout
-  Confirmed Territory
-  Probable Territory
-  Possible Territory



Drawing Title

Sparrowhawk Territories

Project Title

Glenard Windfarm

Drawn By	Checked By
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