



## APPENDIX 7-1

### TARGET SPECIES LIST



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# 1. APPENDIX 7-1 (SPECIES LIST)

Table 1-1 Target Species List

Species	Latin Name	Rationale
Whooper Swan	<i>Cygnus cygnus</i>	Annex I EU Birds Directive
Golden Plover	<i>Pluvialis apricaria</i>	Annex I EU Birds Directive, BoCCI Red Listed
Hen Harrier	<i>Circus cyaneus</i>	Annex I EU Birds Directive
Merlin	<i>Falco columbarius</i>	Annex I EU Birds Directive
Peregrine	<i>Falco peregrinus</i>	Annex I EU Birds Directive
Red Grouse	<i>Lagopus lagopus</i>	BoCCI Red Listed (Breeding Populations Only)
Woodcock	<i>Scolopax rusticola</i>	BoCCI Red Listed (Breeding Populations Only)
Curlew	<i>Numenius arquata</i>	BoCCI Red Listed (Breeding & Wintering Populations)
Buzzard	<i>Buteo buteo</i>	Schedule IV of the Wildlife Act; 1976 (Raptor Species)
Sparrowhawk	<i>Accipiter nisus</i>	Schedule IV of the Wildlife Act; 1976 (Raptor Species)
Kestrel	<i>Falco tinnunculus</i>	Schedule IV of the Wildlife Act; 1976 (Raptor Species)
Common Snipe	<i>Gallinago gallinago</i>	BoCCI Amber Listed (Breeding & Wintering Populations)

Table 1-2 Species Recorded On-Site

Species	Latin Name	Target Spp. Y/N
Whooper Swan	<i>Cygnus cygnus</i>	Yes
Golden Plover	<i>Pluvialis apricaria</i>	Yes
Hen Harrier	<i>Circus cyaneus</i>	Yes
Merlin	<i>Falco columbarius</i>	Yes
Peregrine	<i>Falco peregrinus</i>	Yes
Red Grouse	<i>Lagopus lagopus</i>	Yes
Woodcock	<i>Scolopax rusticola</i>	Yes
Curlew	<i>Numenius arquata</i>	Yes
Buzzard	<i>Buteo buteo</i>	Yes
Sparrowhawk	<i>Accipiter nisus</i>	Yes
Kestrel	<i>Falco tinnunculus</i>	Yes
Common Snipe	<i>Gallinago gallinago</i>	Yes
Meadow Pipit	<i>Anthus pratensis</i>	No
Grey Wagtail	<i>Motacilla cinerea</i>	No
Kittiwake	<i>Rissa tridactyla</i>	No
Common Gull	<i>Larus canus</i>	No
Lesser Black-backed Gull	<i>Larus fuscus</i>	No
Cormorant	<i>Phalacrocorax carbo</i>	No
Grey Heron	<i>Ardea cinerea</i>	No
Scaup	<i>Aythya marila</i>	No
Mallard	<i>Anas platyrhynchos</i>	No
Pheasant	<i>Phasianus colchicus</i>	No
Raven	<i>Corvus corax</i>	No
Carrion Crow	<i>Corvus corone</i>	No
Hooded Crow	<i>Corvus cornix</i>	No
Jay	<i>Garrulus glandarius</i>	No
Magpie	<i>Pica pica</i>	No
Cuckoo	<i>Cuculus canorus</i>	No
Grasshopper Warbler	<i>Locustella naevia</i>	No
Garden Warbler	<i>Sylvia borin</i>	No
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	No
Willow Warbler	<i>Phylloscopus trochilus</i>	No
Blackbird	<i>Turdus merula</i>	No
Mistle Thrush	<i>Turdus viscivorus</i>	No
Song Thrush	<i>Turdus philomelos</i>	No
Fieldfare	<i>Turdus pilaris</i>	No
Redwing	<i>Turdus iliacus</i>	No
Skylark	<i>Alauda arvensis</i>	No



Species	Latin Name	Target Spp. Y/N
Reed Bunting	<i>Emberiza schoeniclus</i>	No
House Martin	<i>Delichon urbicum</i>	No
Swallow	<i>Hirundo rustica</i>	No
Swift	<i>Apus apus</i>	No
Wood Pigeon	<i>Columba palumbus</i>	No
Collard Dove	<i>Streptopelia decaocto</i>	No
Great Tit	<i>Parus major</i>	No
Coal Tit	<i>Parus ater</i>	No
Blue Tit	<i>Parus caeruleus</i>	No
Long-tailed Tit	<i>Aegithalus caudatus</i>	No
Bullfinch	<i>Pyrrhula pyrrhula</i>	No
Chaffinch	<i>Fringilla coelebs</i>	No
Chiffchaff	<i>Phylloscopus collybita</i>	No
Crossbill	<i>Loxia curvirostra</i>	No
Dunnock	<i>Prunella modularis</i>	No
Goldcrest	<i>Regulus regulus</i>	No
Goldfinch	<i>Carduelis carduelis</i>	No
Lesser Redpoll	<i>Carduelis flammea cabaret</i>	No
Linnet	<i>Carduelis cannabina</i>	No
Siskin	<i>Carduelis spinus</i>	No
Pied Wagtail	<i>Motacilla alba yarrellii</i>	No
Robin	<i>Erithacus rubecula</i>	No
Stonechat	<i>Saxicola torquata</i>	No
Whinchat	<i>Saxicola rubetra</i>	No
Treecreeper	<i>Certhia familiaris</i>	No
Wheatear	<i>Oenanthe oenanthe</i>	No
Whitethroat	<i>Sylvia communis</i>	No
Wren	<i>Troglodytes troglodytes</i>	No



## **APPENDIX 7-2**

### ***BIRD SURVEY EFFORT***

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## APPENDIX 7-2 (SURVEY EFFORT)

Table 1-1 Core Vantage Point Survey Effort

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
25/09/2017	Vantage Point Survey	1	01:00 starting at 13:55	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None		LD
25/09/2017	Vantage Point Survey	1	01:00 starting at 14:55	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		LD
25/09/2017	Vantage Point Survey	1	01:00 starting at 15:55	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None		LD
25/09/2017	Vantage Point Survey	1	03:00 starting at 17:25	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		LD
25/10/2017	Vantage Point Survey	1	06:30 starting at 12:43	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		CP

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
10/11/2017	Vantage Point Survey	1	02:00 starting at 11:12	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None		LD
10/11/2017	Vantage Point Survey	1	01:00 starting at 13:12	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None		LD
10/11/2017	Vantage Point Survey	1	00:10 starting at 14:52	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Limited (<500m); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Rain; Frost: None ; Snow: None	Rain and reduced visibilty moving in from the west at the end of the third hour, during the break and increasing at the beginning of the second survey period. Second session abandoned.	LD
11/11/2017	Vantage Point Survey	1	02:00 starting at 14:40	Wind Speed and Direction:Calm, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Survey resumed and completed from yesterday. More Golden Plover calling from the area where the birds were flushed yesterday.	LD
11/11/2017	Vantage Point Survey	1	01:00 starting at 16:40	Wind Speed and Direction:Calm, W; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Survey resumed and completed from yesterday. More Golden Plover calling from the area where the birds were flushed yesterday.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
20/12/2017	Vantage Point Survey	1	03:00 starting at 07:50	Wind Speed and Direction:, sw; Visibility: Poor (<km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Drizzle Mist; Frost: None ; Snow: None		DM
20/12/2017	Vantage Point Survey	1	01:00 starting at 11:20	Wind Speed and Direction:Calm, ; Visibility: Poor (<km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Drizzle Mist; Frost: None ; Snow: None		DM
20/12/2017	Vantage Point Survey	1	02:00 starting at 12:20	Wind Speed and Direction:Calm, ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
25/01/2018	Vantage Point Survey	1	03:00 starting at 11:28	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Regular, heavy showers all day long and strong gusting winds. Very quiet, bar the flock of Golden Plover (see Incidentals).	LD
25/01/2018	Vantage Point Survey	1	03:00 starting at 14:58	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Regular, heavy showers all day long and strong gusting winds. Very quiet, bar the flock of Golden Plover (see Incidentals).	LD
24/02/2018	Vantage Point Survey	1	03:00 starting at 12:28	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	16 GP observed. Haze obscured distant landscape	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
24/02/2018	Vantage Point Survey	1	03:00 starting at 15:58	Wind Speed and Direction:Light Breeze, SE; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	1 BZ observed. Haze obscured distant landscape	RW
21/03/2018	Vantage Point Survey	1	03:00 starting at 13:18	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Another breezy day, with few birds seen in flight. No sign of the large flock of Golden Plover here this time, or any Red Grouse. Three birds were heard calling nearby at VP3 last night, although the conditions were much more settled.	LD
21/03/2018	Vantage Point Survey	1	02:00 starting at 16:48	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Another breezy day, with few birds seen in flight. No sign of the large flock of Golden Plover here this time, or any Red Grouse. Three birds were heard calling nearby at VP3 last night, although the conditions were much more settled.	LD
21/03/2018	Vantage Point Survey	1	01:00 starting at 18:48	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Another breezy day, with few birds seen in flight. No sign of the large flock of Golden Plover here this time, or any Red Grouse. Three birds were heard calling nearby at VP3 last night, although the conditions were much more settled.	LD
04/04/2018	Vantage Point Survey	1	06:04 starting at 07:26	Wind Speed and Direction:Light Breeze, N; Visibility: Limited (<500m); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		SF
02/05/2018	Vantage Point Survey	1	06:19 starting at 06:11	Wind Speed and Direction:Light Breeze, WNW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 10 Rain: None; Frost: None ; Snow: None		SHAY FENNELLY

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
14/06/2018	Vantage Point Survey	1	03:00 starting at 12:30	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None; Snow: None	No sightings	RW
14/06/2018	Vantage Point Survey	1	03:00 starting at 16:00	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None; Snow: None	No sightings	RW
29/07/2018	Vantage Point Survey	1	03:00 starting at 10:51	Wind Speed and Direction:Light Air, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None	No sightings	RW
29/07/2018	Vantage Point Survey	1	03:00 starting at 14:21	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	No sightings	RW
28/08/2018	Vantage Point Survey	1	01:00 starting at 08:00	Wind Speed and Direction:Moderate Breeze, sw; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
28/08/2018	Vantage Point Survey	1	02:00 starting at 09:00	Wind Speed and Direction:Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
28/08/2018	Vantage Point Survey	1	03:00 starting at 11:30	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
18/09/2018	Vantage Point Survey	1	02:00 starting at 06:10	Wind Speed and Direction: Gentle Breeze, sw; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
18/09/2018	Vantage Point Survey	1	01:00 starting at 08:10	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Moderate (1-2km); Cloud Height: ; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
18/09/2018	Vantage Point Survey	1	01:00 starting at 09:40	Wind Speed and Direction: Gentle Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
18/09/2018	Vantage Point Survey	1	02:00 starting at 10:40	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
23/10/2018	Vantage Point Survey	1	01:00 starting at 12:45	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100% Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
23/10/2018	Vantage Point Survey	1	01:00 starting at 13:45	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
23/10/2018	Vantage Point Survey	1	01:00 starting at 14:45	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
23/10/2018	Vantage Point Survey	1	01:00 starting at 16:15	Wind Speed and Direction: Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
23/10/2018	Vantage Point Survey	1	01:00 starting at 17:15	Wind Speed and Direction: Gentle Breeze, W; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
23/10/2018	Vantage Point Survey	1	01:00 starting at 18:15	Wind Speed and Direction: Gentle Breeze, W; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
29/11/2018	Vantage Point Survey	1	07:00 starting at 07:20	Wind Speed and Direction: NNW; Visibility: ; Cloud Height: ; Cloud Cover %: 100 Rain: ; Frost: ; Snow:	Very bad visibility most of the time. Low cloud cover. Very gusty SSW 33km/h @12pm, scattered showers.	AM
03/12/2018	Vantage Point Survey	1	06:00 starting at 07:40	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: <33 Rain: None; Frost: None ; Snow: None		JK

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
15/01/2019	Vantage Point Survey	1	06:30 starting at 11:00	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
07/02/2019	Vantage Point Survey	1	06:30 starting at 11:50	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
26/03/2019	Vantage Point Survey	1	03:00 starting at 06:22	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None	No sightings	RW
26/03/2019	Vantage Point Survey	1	03:00 starting at 09:52	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None	BZ & WS observed	RW
30/04/2019	Vantage Point Survey	1	01:00 starting at 15:00	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
30/04/2019	Vantage Point Survey	1	01:00 starting at 16:00	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
30/04/2019	Vantage Point Survey	1	01:00 starting at 17:00	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
30/04/2019	Vantage Point Survey	1	01:00 starting at 19:00	Wind Speed and Direction: Moderate Breeze, S ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
30/04/2019	Vantage Point Survey	1	01:00 starting at 20:00	Wind Speed and Direction: Light Air, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
30/04/2019	Vantage Point Survey	1	01:00 starting at 21:00	Wind Speed and Direction: Light Air, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
15/05/2019	Vantage Point Survey	1	01:00 starting at 04:30	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
15/05/2019	Vantage Point Survey	1	00:30 starting at 05:30	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
15/05/2019	Vantage Point Survey	1	01:00 starting at 12:30	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
15/05/2019	Vantage Point Survey	1	01:00 starting at 13:30	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
15/05/2019	Vantage Point Survey	1	01:00 starting at 14:30	Wind Speed and Direction:Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	1	01:00 starting at 11:15	Wind Speed and Direction:Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	1	00:30 starting at 12:15	Wind Speed and Direction:Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
18/06/2019	Vantage Point Survey	1	01:00 starting at 10:25	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	Machine working in clearfell forestry area marked on map, couldn't be heard. It was stocking felled timber into stacks from 10:25-16:15 when machine stopped and a jeep left the area.	PW
18/06/2019	Vantage Point Survey	1	01:00 starting at 11:25	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	2 vehicles at turbines near VP4 with someone apparently working turf from 10:25.	PW
18/06/2019	Vantage Point Survey	1	01:00 starting at 12:25	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		PW
18/06/2019	Vantage Point Survey	1	01:00 starting at 13:55	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	One car leaves turf, 14:45	PW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
18/06/2019	Vantage Point Survey	1	01:00 starting at 14:55	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None	Both cars gone now, 15:30. Light rain shower.	PW
18/06/2019	Vantage Point Survey	1	01:00 starting at 15:55	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	At 16:52 a van moved in the clearfell area and the machine began working again.	PW
18/07/2019	Vantage Point Survey	1	06:30 starting at 11:00	Wind Speed and Direction:Light Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Heavy Showers; Frost: None ; Snow: None		JK
07/08/2019	Vantage Point Survey	1	06:30 starting at 16:00	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
04/09/2019	Vantage Point Survey	1	01:00 starting at 05:50	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
04/09/2019	Vantage Point Survey	1	01:00 starting at 06:50	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 33-66 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
04/09/2019	Vantage Point Survey	1	01:00 starting at 07:50	Wind Speed and Direction: Fresh Breeze, W; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
04/09/2019	Vantage Point Survey	1	01:00 starting at 09:40	Wind Speed and Direction: Strong Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		AOD
04/09/2019	Vantage Point Survey	1	01:00 starting at 10:40	Wind Speed and Direction: Strong Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None		AOD
04/09/2019	Vantage Point Survey	1	01:00 starting at 11:40	Wind Speed and Direction: Strong Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None		AOD
26/09/2017	Vantage Point Survey	3	03:00 starting at 13:52	Wind Speed and Direction: Moderate Breeze, SE; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		LD
26/09/2017	Vantage Point Survey	3	01:00 starting at 17:22	Wind Speed and Direction: Moderate Breeze, SE; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
26/09/2017	Vantage Point Survey	3	02:00 starting at 18:22	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		LD
24/10/2017	Vantage Point Survey	3	06:30 starting at 12:46	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Showers second half; Frost: None ; Snow: None		CP
15/11/2017	Vantage Point Survey	3	01:00 starting at 11:03	Wind Speed and Direction: Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Had to abandon the second half of the VP survey due to thick fog and increasingly reduced visibility. Occasional mist rolling in, visibility was good for the vast majority of the first three hours beforehand.	LD
15/11/2017	Vantage Point Survey	3	01:00 starting at 12:03	Wind Speed and Direction: Gentle Breeze, S; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Had to abandon the second half of the VP survey due to thick fog and increasingly reduced visibility. Occasional mist rolling in, visibility was good for the vast majority of the first three hours beforehand.	LD
15/11/2017	Vantage Point Survey	3	01:00 starting at 13:03	Wind Speed and Direction: Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Had to abandon the second half of the VP survey due to thick fog and increasingly reduced visibility. Occasional mist rolling in, visibility was good for the vast majority of the first three hours beforehand.	LD
15/11/2017	Vantage Point Survey	3	00:37 starting at 14:33	Wind Speed and Direction: Gentle Breeze, S; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Had to abandon the second half of the VP survey due to thick fog and increasingly reduced visibility. Occasional mist rolling in, visibility was good for the vast majority of the first three hours beforehand.	LD



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
20/11/2017	Vantage Point Survey	3	01:00 starting at 14:26	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Continued and completd from 15/11/17. Occasional light rain and mist in the distance. Very quiet again.	LD
20/11/2017	Vantage Point Survey	3	01:00 starting at 15:26	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Continued and completd from 15/11/17. Occasional light rain and mist in the distance. Very quiet again.	LD
20/11/2017	Vantage Point Survey	3	01:00 starting at 16:26	Wind Speed and Direction:Light Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Continued and completd from 15/11/17. Occasional light rain and mist in the distance. Very quiet again.	LD
15/12/2017	Vantage Point Survey	3	03:00 starting at 07:45	Wind Speed and Direction:Moderate Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		DM
15/12/2017	Vantage Point Survey	3	03:00 starting at 11:15	Wind Speed and Direction:Moderate Breeze, mw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None		DM
23/01/2018	Vantage Point Survey	3	02:00 starting at 11:25	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very strong breeze all day, gusting to gale force winds on occasion. Very quiet, and only saw one bird (the Jay) in flight all day.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
23/01/2018	Vantage Point Survey	3	01:00 starting at 13:25	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	Very strong breeze all day, gusting to gale force winds on occasion. Very quiet, and only saw one bird (the Jay) in flight all day.	LD
23/01/2018	Vantage Point Survey	3	01:00 starting at 14:55	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Very strong breeze all day, gusting to gale force winds on occasion. Very quiet, and only saw one bird (the Jay) in flight all day.	LD
23/01/2018	Vantage Point Survey	3	02:00 starting at 15:55	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Very strong breeze all day, gusting to gale force winds on occasion. Very quiet, and only saw one bird (the Jay) in flight all day.	LD
25/02/2018	Vantage Point Survey	3	02:17 starting at 16:01	Wind Speed and Direction:Strong Breeze, S; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Another blustery day, with thin, low lying cloud in the distant valley. That thickened up during the morning, but visibility was still greater or equal to 1km. Very few birds. Very cold and quiet.	LD
25/02/2018	Vantage Point Survey	3	02:17 starting at 16:01	Wind Speed and Direction:Strong Breeze, S; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Another blustery day, with thin, low lying cloud in the distant valley. That thickened up during the morning, but visibility was still greater or equal to 1km. Very few birds. Very cold and quiet.	LD
15/03/2018	Vantage Point Survey	3	02:00 starting at 13:06	Wind Speed and Direction:Strong Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None; Snow: None	Survey suspended after three hours because of the increasing strength of the wind. Increasing to gale force, with all birds gone to ground.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
15/03/2018	Vantage Point Survey	3	02:00 starting at 16:06	Wind Speed and Direction:Strong Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Survey suspended after three hours because of the increasing strength of the wind. Increasing to gale force, with all birds gone to ground.	LD
20/03/2018	Vantage Point Survey	3	02:00 starting at 16:46	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None; Snow: None	Very calm and settled day. Still very cold, with frozen water and ice on the ground. A few birds in flight and also three Red Grouse calling at dusk. Survey completed from 15/3/2018.	LD
20/03/2018	Vantage Point Survey	3	1:00 starting at 18:46	Wind Speed and Direction:Calm, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None; Snow: None	Very calm and settled day. Still very cold, with frozen water and ice on the ground. A few birds in flight and also three Red Grouse calling at dusk. Survey completed from 15/3/2018.	LD
10/04/2018	Vantage Point Survey	3	06:30 starting at 06:30	Wind Speed and Direction:Light Breeze, E; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None	VISIBILITY IMPROVED OVER WATCH	SF
03/05/2018	Vantage Point Survey	3	06:30 starting at 05:00	Wind Speed and Direction:Gentle Breeze, SSW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	DRY FOLLOWED BY SHOWERS AND CLOUD BUT VIS=2KM	SHAY FENNELLY
21/06/2018	Vantage Point Survey	3	03:00 starting at 11:00	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: None	K & HH observed	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
21/06/2018	Vantage Point Survey	3	03:00 starting at 14:30	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: None	K observed	RW
27/07/2018	Vantage Point Survey	3	03:00 starting at 10:17	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	No sightings	RW
27/07/2018	Vantage Point Survey	3	03:00 starting at 13:47	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	No sightings	RW
27/08/2018	Vantage Point Survey	3	01:00 starting at 12:00	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Light Showers; Frost: None; Snow: None		DM
27/08/2018	Vantage Point Survey	3	02:00 starting at 13:00	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
27/08/2018	Vantage Point Survey	3	03:00 starting at 15:30	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
17/09/2018	Vantage Point Survey	3	02:00 starting at 06:10	Wind Speed and Direction: Moderate Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None	6:30 red grouse calling. 7:30 hare seen. 13:00 snipe flushed from bog after vp	DM
17/09/2018	Vantage Point Survey	3	01:00 starting at 08:10	Wind Speed and Direction: Moderate Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Light Showers; Frost: None; Snow: None		DM
17/09/2018	Vantage Point Survey	3	01:00 starting at 09:40	Wind Speed and Direction: Fresh Breeze, s; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
17/09/2018	Vantage Point Survey	3	01:00 starting at 10:40	Wind Speed and Direction: Fresh Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
17/09/2018	Vantage Point Survey	3	01:00 starting at 11:40	Wind Speed and Direction: Fresh Breeze, s; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
26/10/2018	Vantage Point Survey	3	01:00 starting at 13:45	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
26/10/2018	Vantage Point Survey	3	01:00 starting at 14:45	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None ; Snow: None		AOD
26/10/2018	Vantage Point Survey	3	01:00 starting at 15:45	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
01/11/2018	Vantage Point Survey	3	01:00 starting at 15:00	Wind Speed and Direction: Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	OCTOBER SURVEY	AOD
01/11/2018	Vantage Point Survey	3	01:00 starting at 16:00	Wind Speed and Direction: Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None	OCTOBER SURVEY	AOD
01/11/2018	Vantage Point Survey	3	01:00 starting at 17:00	Wind Speed and Direction: Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None	OCTOBER SURVEY	AOD
30/11/2018	Vantage Point Survey	3	06:00 starting at 07:15	Wind Speed and Direction: Fresh Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60 Rain: None; Frost: None ; Snow: None		J.Kennedy

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
05/12/2018	Vantage Point Survey	3	06:00 starting at 07:40	Wind Speed and Direction:Gentle Breeze, E; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
04/02/2019	Vantage Point Survey	3	06:30 starting at 11:30	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-60 Rain: None; Frost: None ; Snow: Ground	JANUARY SURVEY	JK
25/02/2019	Vantage Point Survey	3	03:00 starting at 12:29	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 90 Rain: None; Frost: None ; Snow: None	No sightings	RW
25/02/2019	Vantage Point Survey	3	03:00 starting at 15:59	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 50 Rain: None; Frost: None ; Snow: None	No sightings	RW
14/03/2019	Vantage Point Survey	3	03:00 starting at 06:51	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 90 Rain: Light Showers; Frost: None ; Snow: None	No sightings	RW
14/03/2019	Vantage Point Survey	3	03:00 starting at 10:21	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 80 Rain: None; Frost: None ; Snow: None	GP, BZ & KI observed	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
29/04/2019	Vantage Point Survey	3	01:00 starting at 15:00	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
29/04/2019	Vantage Point Survey	3	01:00 starting at 16:00	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
29/04/2019	Vantage Point Survey	3	01:00 starting at 17:00	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
29/04/2019	Vantage Point Survey	3	01:00 starting at 19:00	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
29/04/2019	Vantage Point Survey	3	01:00 starting at 20:00	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
29/04/2019	Vantage Point Survey	3	01:00 starting at 21:00	Wind Speed and Direction:Fresh Breeze, SE; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None		AOD



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
14/05/2019	Vantage Point Survey	3	01:00 starting at 04:30	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
14/05/2019	Vantage Point Survey	3	01:00 starting at 05:30	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
14/05/2019	Vantage Point Survey	3	01:00 starting at 06:30	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
14/05/2019	Vantage Point Survey	3	01:00 starting at 07:00	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
14/05/2019	Vantage Point Survey	3	01:00 starting at 08:00	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
14/05/2019	Vantage Point Survey	3	01:00 starting at 09:00	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
05/06/2019	Vantage Point Survey	3	01:00 starting at 14:35	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None	Visibility variable 3-4	PW
05/06/2019	Vantage Point Survey	3	01:00 starting at 15:35	Wind Speed and Direction: Gentle Breeze, NW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	Visibility variable 1-2	PW
05/06/2019	Vantage Point Survey	3	01:00 starting at 16:35	Wind Speed and Direction: Gentle Breeze, NW; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	Visibility variable 1-2, 1. Poor visibility throughout whole survey, getting worse to no visibility at last 30 minutes. Low cloud rolling by all the time.	PW
14/06/2019	Vantage Point Survey	3	01:00 starting at 14:00	Wind Speed and Direction: Calm, ; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None	Machine heard working in forest for the first 2 hours of the survey. One person working turf northwest of VP3.	PW
14/06/2019	Vantage Point Survey	3	01:00 starting at 15:00	Wind Speed and Direction: Light Air, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None	Two people working turf northwest of VP3.	PW
14/06/2019	Vantage Point Survey	3	01:00 starting at 16:00	Wind Speed and Direction: Calm, ; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None	One person working turf northwest of VP3	PW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
02/07/2019	Vantage Point Survey	3	06:30 starting at 11:00	Wind Speed and Direction:Light Air, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
13/08/2019	Vantage Point Survey	3	06:30 starting at 15:45	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-60 Rain: Heavy Showers; Frost: None ; Snow: None		JK
05/09/2019	Vantage Point Survey	3	01:00 starting at 05:50	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
05/09/2019	Vantage Point Survey	3	01:00 starting at 06:50	Wind Speed and Direction:Light Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
05/09/2019	Vantage Point Survey	3	01:00 starting at 07:50	Wind Speed and Direction:Moderate Breeze, W; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
05/09/2019	Vantage Point Survey	3	01:00 starting at 09:40	Wind Speed and Direction:Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
05/09/2019	Vantage Point Survey	3	01:00 starting at 10:40	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
05/09/2019	Vantage Point Survey	3	01:00 starting at 11:40	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
29/09/2017	Vantage Point Survey	4	01:00 starting at 13:47	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD
29/09/2017	Vantage Point Survey	4	01:00 starting at 14:47	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD
29/09/2017	Vantage Point Survey	4	01:00 starting at 15:47	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD
29/09/2017	Vantage Point Survey	4	01:00 starting at 17:17	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
29/09/2017	Vantage Point Survey	4	01:00 starting at 18:17	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD
29/09/2017	Vantage Point Survey	4	01:00 starting at 19:17	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A couple of heavy downpours, but otherwise bright. Breezy early on	LD
26/10/2017	Vantage Point Survey	4	06:30 starting at 12:41	Wind Speed and Direction: Light Breeze, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		CP
17/11/2017	Vantage Point Survey	4	01:00 starting at 11:00	Wind Speed and Direction: Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD
17/11/2017	Vantage Point Survey	4	01:00 starting at 12:00	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD
17/11/2017	Vantage Point Survey	4	01:00 starting at 13:00	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD
17/11/2017	Vantage Point Survey	4	01:00 starting at 14:30	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
17/11/2017	Vantage Point Survey	4	01:00 starting at 15:30	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD
17/11/2017	Vantage Point Survey	4	01:00 starting at 16:30	Wind Speed and Direction: Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Breezy, with bright interludes, but very quiet. Moved VP slightly to G 86247 23347.	LD
13/12/2017	Vantage Point Survey	4	01:00 starting at 07:45	Wind Speed and Direction: Moderate Breeze, w; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: Ground		DM
13/12/2017	Vantage Point Survey	4	02:00 starting at 08:45	Wind Speed and Direction: Moderate Breeze, w; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: Ground		DM
13/12/2017	Vantage Point Survey	4	02:00 starting at 11:15	Wind Speed and Direction: Moderate Breeze, w; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: Ground		DM
13/12/2017	Vantage Point Survey	4	01:00 starting at 13:45	Wind Speed and Direction: Moderate Breeze, w; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: Ground		DM

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
03/02/2018	Vantage Point Survey	4	01:00 starting at 11:46	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Light Showers; Frost: None ; Snow: None	JANUARY SURVEY Quiet again here as usual for winter, non-breeding surveys. Heavy showers, but bbright in between.	LD
03/02/2018	Vantage Point Survey	4	02:00 starting at 12:46	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	JANUARY SURVEY Quiet again here as usual for winter, non-breeding surveys. Heavy showers, but bbright in between.	LD
03/02/2018	Vantage Point Survey	4	01:00 starting at 15:16	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	JANUARY SURVEY Quiet again here as usual for winter, non-breeding surveys. Heavy showers, but bbright in between.	LD
03/02/2018	Vantage Point Survey	4	02:00 starting at 16:16	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	JANUARY SURVEY Quiet again here as usual for winter, non-breeding surveys. Heavy showers, but bbright in between.	LD
17/02/2018	Vantage Point Survey	4	02:17 starting at 16:01	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 2 Rain: None; Frost: Heavy; Snow: None	Cold, crisp clear day. Snow and ice present on the ground, with winds gradually increasing from the south west.	LD
17/02/2018	Vantage Point Survey	4	02:17 starting at 16:01	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 1 Rain: None; Frost: Heavy; Snow: None	Cold, crisp clear day. Snow and ice present on the ground, with winds gradually increasing from the south west.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
17/02/2018	Vantage Point Survey	4	02:17 starting at 16:01	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 1 Rain: None; Frost: Heavy; Snow: None	Cold, crisp clear day. Snow and ice present on the ground, with winds gradually increasing from the south west.	LD
17/02/2018	Vantage Point Survey	4	02:17 starting at 16:01	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 1 Rain: None; Frost: Heavy; Snow: None	Cold, crisp clear day. Snow and ice present on the ground, with winds gradually increasing from the south west.	LD
10/03/2018	Vantage Point Survey	4	01:00 starting at 12:57	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Low lying mist, with drizzle and the odd heavy shower, but brightening throughout with a fresh breeze. Some snow, but mostly melted. Very quiet.	LD
10/03/2018	Vantage Point Survey	4	01:00 starting at 13:57	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: Light Showers; Frost: None; Snow: Ground	Low lying mist, with drizzle and the odd heavy shower, but brightening throughout with a fresh breeze. Some snow, but mostly melted. Very quiet.	LD
10/03/2018	Vantage Point Survey	4	02:17 starting at 16:01	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None; Snow: Ground	Low lying mist, with drizzle and the odd heavy shower, but brightening throughout with a fresh breeze. Some snow, but mostly melted. Very quiet.	LD
10/03/2018	Vantage Point Survey	4	02:00 starting at 16:27	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Low lying mist, with drizzle and the odd heavy shower, but brightening throughout with a fresh breeze. Some snow, but mostly melted. Very quiet.	LD



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
10/03/2018	Vantage Point Survey	4	1:00 starting at 18:27	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: Light Showers; Frost: None; Snow: Ground	Low lying mist, with drizzle and the odd heavy shower, but brightening throughout with a fresh breeze. Some snow, but mostly melted. Very quiet.	LD
29/04/2018	Vantage Point Survey	4	06:25 starting at 05:05	Wind Speed and Direction: Calm, E; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0 Rain: None; Frost: None; Snow: None	SUNNY	SF
05/05/2018	Vantage Point Survey	4	03:00 starting at 14:15	Wind Speed and Direction: Moderate Breeze, SSW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None; Snow: None	ARRIVE 04:45 LOW CLOUD, GOTO LISSINGROAGH VP02. LOW CLOUD TOO.. DO 3 HOUR SURVEY AT CARRANE HILL VP04. START 14:15-17:15	SHAY FENNELLY
09/05/2018	Vantage Point Survey	4	03:00 starting at 17:00	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 50 Rain: None; Frost: None; Snow: None	This is dusk survey at carrane hill VP04 (second part)	SHAY FENNELLY
22/06/2018	Vantage Point Survey	4	03:00 starting at 11:12	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None; Snow: None	No sightings	RW
22/06/2018	Vantage Point Survey	4	03:00 starting at 14:42	Wind Speed and Direction: Light Air, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: None	No sightings	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
05/07/2018	Vantage Point Survey	4	03:00 starting at 09:46	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None	1 K. Occ drizzle in 1st hour	RW
05/07/2018	Vantage Point Survey	4	03:00 starting at 13:16	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	1 K.	RW
13/08/2018	Vantage Point Survey	4	01:00 starting at 12:40	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
13/08/2018	Vantage Point Survey	4	02:00 starting at 13:40	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
13/08/2018	Vantage Point Survey	4	03:00 starting at 16:10	Wind Speed and Direction:Light Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
19/09/2018	Vantage Point Survey	4	01:00 starting at 06:15	Wind Speed and Direction:Moderate Gale, sw; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Heavy Rain; Frost: None; Snow: None		DM

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
19/09/2018	Vantage Point Survey	4	01:00 starting at 07:15	Wind Speed and Direction:Strong Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Heavy Showers; Frost: None; Snow: None		DM
19/09/2018	Vantage Point Survey	4	01:00 starting at 08:15	Wind Speed and Direction:Strong Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Light Showers; Frost: None; Snow: None		DM
20/09/2018	Vantage Point Survey	4	02:00 starting at 10:15	Wind Speed and Direction:Gentle Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
20/09/2018	Vantage Point Survey	4	01:00 starting at 12:15	Wind Speed and Direction:Light Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
18/10/2018	Vantage Point Survey	4	01:00 starting at 14:00	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
18/10/2018	Vantage Point Survey	4	01:00 starting at 15:00	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
18/10/2018	Vantage Point Survey	4	01:00 starting at 16:00	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
18/10/2018	Vantage Point Survey	4	01:00 starting at 17:30	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
18/10/2018	Vantage Point Survey	4	01:00 starting at 18:30	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
22/10/2018	Vantage Point Survey	4	01:00 starting at 15:00	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
01/12/2018	Vantage Point Survey	4	07:00 starting at 07:20	Wind Speed and Direction:, NNE; Visibility: ; Cloud Height: ; Cloud Cover %: 80 Rain: ; Frost: ; Snow:	NOVEMBER SURVEY all morning, patchy clouds. Scattered showers	AM
13/12/2018	Vantage Point Survey	4	03:00 starting at 10:20	Wind Speed and Direction:Strong Breeze, E; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Heavy Rain; Frost: None ; Snow: None		JK

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
19/12/2018	Vantage Point Survey	4	03:00 starting at 07:40	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
14/01/2019	Vantage Point Survey	4	06:30 starting at 11:00	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
13/02/2019	Vantage Point Survey	4	03:00 starting at 12:43	Wind Speed and Direction: Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A strong breeze on site, with only three species seen in flight and a couple of Passerines calling. No Target Species present.	L. Dark
25/02/2019	Vantage Point Survey	4	01:00 starting at 16:01	Wind Speed and Direction: Fresh Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Strong breeze again on this elevated VP. A few species singing or calling, but no Raptor's or Target Species seen.	L. Dark
25/02/2019	Vantage Point Survey	4	02:00 starting at 17:01	Wind Speed and Direction: Strong Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Strong breeze again on this elevated VP. A few species singing or calling, but no Raptor's or Target Species seen.	L. Dark
25/03/2019	Vantage Point Survey	4	03:00 starting at 06:24	Wind Speed and Direction: Light Air, NW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 80 Rain: None; Frost: None ; Snow: None	1 K. observed	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
25/03/2019	Vantage Point Survey	4	03:00 starting at 09:54	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 50 Rain: None; Frost: None ; Snow: None	No sightings	RW
24/04/2019	Vantage Point Survey	4	02:00 starting at 10:38	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Plenty of Passerines in song, with light rain increasing at the end of the survey. Rain forecast this afternoon, hence the earlier start. No Raptor's or Target Species seen here today.	L. Dark
24/04/2019	Vantage Point Survey	4	01:00 starting at 12:38	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Plenty of Passerines in song, with light rain increasing at the end of the survey. Rain forecast this afternoon, hence the earlier start. No Raptor's or Target Species seen here today.	L. Dark
29/04/2019	Vantage Point Survey	4	02:00 starting at 19:01	Wind Speed and Direction:Moderate Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain and drizzle starting after half an hour, persistent and becoming heavier at the end of the survey. Very quiet session, with few birds seen in flight.	L. Dark
29/04/2019	Vantage Point Survey	4	01:00 starting at 21:01	Wind Speed and Direction:Moderate Breeze, S; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain and drizzle starting after half an hour, persistent and becoming heavier at the end of the survey. Very quiet session, with few birds seen in flight.	L. Dark
16/05/2019	Vantage Point Survey	4	01:00 starting at 04:30	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
16/05/2019	Vantage Point Survey	4	01:00 starting at 05:30	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
16/05/2019	Vantage Point Survey	4	01:00 starting at 06:30	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
16/05/2019	Vantage Point Survey	4	01:00 starting at 08:00	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
16/05/2019	Vantage Point Survey	4	01:00 starting at 09:00	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
16/05/2019	Vantage Point Survey	4	01:00 starting at 10:00	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
13/06/2019	Vantage Point Survey	4	01:00 starting at 13:39	Wind Speed and Direction:Fresh Breeze, NNW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	Man working turf on northwestern side of site near VP3 on moorland.	PW
13/06/2019	Vantage Point Survey	4	01:00 starting at 14:39	Wind Speed and Direction:Moderate Breeze, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-	Machine felling in forestry from 15:08. Man working turf on northwestern side of site near VP3 on moorland.	PW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
				100 Rain: None; Frost: None ; Snow: None		
13/06/2019	Vantage Point Survey	4	01:00 starting at 15:39	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		PW
13/06/2019	Vantage Point Survey	4	01:00 starting at 17:10	Wind Speed and Direction: Moderate Breeze, N; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		PW
13/06/2019	Vantage Point Survey	4	01:00 starting at 18:10	Wind Speed and Direction: Moderate Breeze, N; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None ; Snow: None	Van drove down through forestry down from 4 turbines on western side of site.	PW
13/06/2019	Vantage Point Survey	4	01:00 starting at 19:10	Wind Speed and Direction: Moderate Breeze, N; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		PW



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
01/07/2019	Vantage Point Survey	4	06:30 starting at 11:30	Wind Speed and Direction: Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
27/08/2019	Vantage Point Survey	4	06:30 starting at 15:15	Wind Speed and Direction: Gentle Breeze, SW; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Heavy Showers; Frost: None ; Snow: None		JK
06/09/2019	Vantage Point Survey	4	01:00 starting at 05:50	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	NO TARGETS	AOD
06/09/2019	Vantage Point Survey	4	01:00 starting at 06:50	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
06/09/2019	Vantage Point Survey	4	01:00 starting at 07:50	Wind Speed and Direction: Fresh Breeze, W; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		AOD
06/09/2019	Vantage Point Survey	4	01:00 starting at 09:20	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
06/09/2019	Vantage Point Survey	4	01:00 starting at 10:20	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		AOD
06/09/2019	Vantage Point Survey	4	01:00 starting at 11:20	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Table 1-2 Breeding Bird (Adapted Brown & Shephard) Survey Effort

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
11/04/2018	Breeding Walkover Survey	West	06:16 starting at 11:57	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Plenty of Passerines in song, but no Target Species or raptors.	LD
13/04/2018	Breeding Walkover Survey	North	03:06 starting at 10:48	Wind Speed and Direction:Light Air, SW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Early mist lifting and plenty of birds in song around the site. No target species or Raptors.	LD
26/04/2018	Breeding Walkover Survey	North	03:14 starting at 10:26	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Breezy day, but sheltered along the tracks and lines of conifers. See also Incidentals.	LD
26/04/2018	Breeding Walkover Survey	West	02:51 starting at 14:10	Wind Speed and Direction:Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Fairly strong westerly winds, and occasional light rain throughout. Two Cuckoo's and three Snipe flushed and/or in song. See Incidentals.	LD
27/04/2018	Breeding Walkover Survey	West	03:41 starting at 12:23	Wind Speed and Direction:Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	Heavy showers and hail at times, but still lot's of birds calling and in song.	LD
06/05/2018	Breeding Walkover Survey	North East -	01:00 starting at 08:14	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Low lying cloud and mist, gradually clearing. Plenty of Passerines in song and also a possible Merlin. See Raptor tab for report.	LD
06/05/2018	Breeding Walkover Survey	North East -	02:17 starting at 09:14	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Low lying cloud and mist, gradually clearing. Plenty of Passerines in song and also a possible Merlin. See Raptor tab for report.	LD

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
07/05/2018	Breeding Walkover Survey	North East -	03:10 starting at 08:14	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	No Raptors or target species observed, but plenty of birds in song, including another couple of Cuckoo's. Another breezy day but sheltered in and around the conifers.	LD
26/05/2018	Breeding Walkover Survey	North East -	01:00 starting at 10:43	Wind Speed and Direction:Fresh Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Strong breeze in exposed areas but sheltered alongside the conifers and lot's of breeding birds in song.	LD
26/05/2018	Breeding Walkover Survey	South-West	02:21 starting at 11:43	Wind Speed and Direction:Fresh Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Strong breeze in exposed areas but sheltered alongside the conifers and lot's of breeding birds in song.	LD
29/05/2018	Breeding Walkover Survey	South-West	02:00 starting at 07:50	Wind Speed and Direction:Moderate Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, sunny day and lots of birds in song.	LD
29/05/2018	Breeding Walkover Survey	South-West	04:19 starting at 09:50	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, sunny day and lots of birds in song.	LD
30/05/2018	Breeding Walkover Survey	South-West	05:42 starting at 07:32	Wind Speed and Direction:Moderate Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm day again with lots of birds in song. Moorland section predominantly seeing and hearing Meadow Pipit's displaying in flight, alongside a few Skylarks above the heather and Molinia moorland. See also Incidentals.	LD
06/06/2018	Breeding Walkover Survey	North	02:00 starting at 13:38	Wind Speed and Direction:Light Breeze, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm and sunny today, with plenty of Passerines in song, although there was disturbance from heavy plant and machinery at the quarry. See map.	LD

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
06/06/2018	Breeding Walkover Survey	North	01:08 starting at 15:38	Wind Speed and Direction:Light Air, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm and sunny today, with plenty of Passerines in song, although there was disturbance from heavy plant and machinery at the quarry. See map.	LD
07/06/2018	Breeding Walkover Survey	North East	02:00 starting at 09:45	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, sunny day with lots of birds singing and in flight. No Raptor's present. But good numbers of Cuckoo's again. See Incidentals for Grid References.	LD
07/06/2018	Breeding Walkover Survey	North East	01:11 starting at 11:45	Wind Speed and Direction:Light Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Warm, sunny day with lots of birds singing and in flight. No Raptor's present. But good numbers of Cuckoo's again. See Incidentals for Grid References.	LD
08/06/2018	Breeding Walkover Survey	North East	02:00 starting at 09:52	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Very still, humid morning. Clouds building and thunder at the end of the survey. No Target Species, but plenty of Passerines in song and another two Cuckoo's on site.	LD
08/06/2018	Breeding Walkover Survey	North East	01:08 starting at 11:52	Wind Speed and Direction:Light Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very still, humid morning. Clouds building and thunder at the end of the survey. No Target Species, but plenty of Passerines in song and another two Cuckoo's on site.	LD
24/06/2018	Breeding Walkover Survey	South West	02:53 starting at 06:40	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Moderate breeze, but plenty of birds calling and in song at Carran Hill.	LD
27/06/2018	Breeding Walkover Survey	South East	02:00 starting at 09:38	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, sunny day with temperatures in the high 20oC's. Passerines in song along the transect routes but starting to become a little quieter now. No Target Species present.	LD

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
27/06/2018	Breeding Walkover Survey	South East	01:05 starting at 11:38	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, sunny day with temperatures in the high 20oC's. Passerines in song along the transect routes but starting to become a little quieter now. No Target Species present.	LD
28/06/2018	Breeding Walkover Survey	South West	04:07 starting at 06:36	Wind Speed and Direction:Light Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Another clear and very warm, sunny day, with temperatures exceeding 30oC. Plenty of Meadow Pipit's (including juveniles) and a pair of Cuckoo's, but Raptor's or Target Species present.	LD
10/07/2018	Breeding Walkover Survey		08:05 starting at 09:15	Wind Speed and Direction:Calm, N ; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	SN and RG sighted. Low cloud over hill tops am	RW
12/07/2018	Breeding Walkover Survey		07:50 starting at 09:00	Wind Speed and Direction:Calm, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	K sighted	RW
25/07/2018	Breeding Walkover Survey		07:11 starting at 09:32	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	No sightings	RW
16/04/2019	Breeding Walkover Survey	North	02:00 starting at 11:48	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Early morning mist and rain, gradually clearing. Plenty of Passerine's in song, and also flushed a pair of Mallard's from a small pool. See map for location.	L. Dark
16/04/2019	Breeding Walkover Survey	North	03:35 starting at 13:48	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Early morning mist and rain, gradually clearing. Plenty of Passerine's in song, and also flushed a pair of Mallard's from a small pool. See map for location.	L. Dark

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
17/04/2019	Breeding Walkover Survey	South-West-(N)	04:00 starting at 10:52	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Good numbers of Passerine's in song throughout the survey site. Also saw a female Kestrel in flight from a short VP. The bird was flying west from open moorland, carrying an item of prey it had caught. See map for the species location.	L. Dark
17/04/2019	Breeding Walkover Survey	South-West-(N)	02:04 starting at 14:52	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Good numbers of Passerine's in song throughout the survey site. Also saw a female Kestrel in flight from a short VP. The bird was flying west from open moorland, carrying an item of prey it had caught. See map for the species location.	L. Dark
18/04/2019	Breeding Walkover Survey	South-West-(W)	04:00 starting at 10:16	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Lots of Passerine's in song, and also the first Wheatear and Whinchat of the year. Heard a Buzzard calling on and off behind a tall stand of conifers but did not see the bird. Also flushed a Sparrowhawk from scrub. See map for their locations.	L. Dark
18/04/2019	Breeding Walkover Survey	South-West-(W)	02:00 starting at 14:16	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Lots of Passerine's in song, and also the first Wheatear and Whinchat of the year. Heard a Buzzard calling on and off behind a tall stand of conifers but did not see the bird. Also flushed a Sparrowhawk from scrub. See map for their locations.	L. Dark
20/05/2019	Breeding Walkover Survey	North	02:00 starting at 10:16	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A fairly calm day, with broken cloud and spells of sunshine. Plenty of Passerine's in song along the conifer route and also areas of open moorland, but no Raptor's or Target Species seen today.	L. Dark
20/05/2019	Breeding Walkover Survey	North	02:00 starting at 12:16	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud	A fairly calm day, with broken cloud and spells of sunshine. Plenty of Passerine's in song along the	L. Dark



Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
				Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	conifer route and also areas of open moorland, but no Raptor's or Target Species seen today.	
20/05/2019	Breeding Walkover Survey	North	01:42 starting at 14:16	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A fairly calm day, with broken cloud and spells of sunshine. Plenty of Passerine's in song along the conifer route and also areas of open moorland, but no Raptor's or Target Species seen today.	L. Dark
21/05/2019	Breeding Walkover Survey	South West (N)	03:00 starting at 09:46	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very calm day, with clouds clearing to warm sunshine on the survey site. Lots of Passerine's in song, including good numbers of Willow Warbler, three Cuckoo's and a few Siskin's in flight. Also saw a Grey Heron along an open area of track. See Walkover tab and map for location.	L. Dark
21/05/2019	Breeding Walkover Survey	South West (N)	03:15 starting at 12:46	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Very calm day, with clouds clearing to warm sunshine on the survey site. Lots of Passerine's in song, including good numbers of Willow Warbler, three Cuckoo's and a few Siskin's in flight. Also saw a Grey Heron along an open area of track. See Walkover tab and map for location.	L. Dark
22/05/2019	Breeding Walkover Survey	South West (W)	04:00 starting at 11:21	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Calm conditions again today. Plenty of birds (primarily Meadow Pipit's and Skylark's over the moor) and also a Snipe drumming in the northern section of the site. Good numbers of Cuckoo as well today, with a pair seen mating over the moorland.	L. Dark
23/05/2019	Breeding Walkover Survey	South West (W)	02:04 starting at 15:21	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Calm conditions again today. Plenty of birds (primarily Meadow Pipit's and Skylark's over the moor) and also a Snipe drumming in the northern section of the site. Good numbers of Cuckoo as well today, with a pair seen mating over the moorland.	L. Dark



Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
24/06/2019	Breeding Walkover Survey		01:00 starting at 14:00	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
24/06/2019	Breeding Walkover Survey		01:00 starting at 15:00	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
24/06/2019	Breeding Walkover Survey		01:00 starting at 16:00	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
24/06/2019	Breeding Walkover Survey		01:00 starting at 17:00	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
24/06/2019	Breeding Walkover Survey		01:00 starting at 18:00	Wind Speed and Direction:Calm, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
24/06/2019	Breeding Walkover Survey		01:00 starting at 19:00	Wind Speed and Direction:Calm, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
25/06/2019	Breeding Walkover Survey		01:00 starting at 11:45	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
25/06/2019	Breeding Walkover Survey		01:00 starting at 12:45	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
25/06/2019	Breeding Walkover Survey		01:00 starting at 13:45	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
25/06/2019	Breeding Walkover Survey		01:00 starting at 14:45	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
25/06/2019	Breeding Walkover Survey		01:00 starting at 15:45	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
25/06/2019	Breeding Walkover Survey		01:00 starting at 16:45	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
01/07/2019	Breeding Walkover Survey		01:00 starting at 11:30	Wind Speed and Direction:Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD
01/07/2019	Breeding Walkover Survey		01:00 starting at 12:30	Wind Speed and Direction:Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD

Date	Survey Method	Area	Survey Duration	Weather Conditions	Comments	Surveyor
01/07/2019	Breeding Walkover Survey		01:00 starting at 13:30	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD
01/07/2019	Breeding Walkover Survey		01:00 starting at 14:30	Wind Speed and Direction: Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD
01/07/2019	Breeding Walkover Survey		01:00 starting at 15:30	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD
01/07/2019	Breeding Walkover Survey		01:00 starting at 16:30	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	JUNE SURVEY	AOD
16/07/2019	Breeding Walkover Survey	W	02:30 starting at 13:00	Wind Speed and Direction: Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-60 Rain: None; Frost: None ; Snow: None		JK
22/07/2019	Breeding Walkover Survey	N	03:15 starting at 11:30	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
23/07/2019	Breeding Walkover Survey	SE	02:00 starting at 12:00	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		JK

Table 1-3 Breeding Raptor Survey Effort

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
13/04/2018	Breeding Raptor Survey	East	03:14 starting at 14:14	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Sparrowhawk seen flying low over the ground. See Raptor tab for report. Good views over a large area of conifers and clearfell, but very quiet at the second VP. Dead Badger found (see incidentals).	LD
14/04/2018	Breeding Raptor Survey	North	06:21 starting at 07:14	Wind Speed and Direction:Moderate Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Buzzard heard calling behind the tall conifers in the distance (see map and raptor tab). Also heard Snipe 'Chipping' in wet grassland and Juncus close by and a Garden warbler in song on a recce. See incidentals.	LD
19/04/2018	Breeding Raptor Survey	North	06:06 starting at 11:48	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	A pair of Kestrels and a Sparrowhawk seen on site today. See Raptor tab and also incidentals.	LD
21/04/2018	Breeding Raptor Survey	South	06:23 starting at 07:12	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Breezy day with few birds seen in flight. More sheltered in the valley at VP-B and had two male Cuckoo's in song. Also heard Grasshopper Warbler singing. See Incidentals.	LD
22/04/2018	Breeding Raptor Survey	East	06:28 starting at 07:16	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Kestrel seen very briefly flying low over dense grassland on a mountain slope. See Raptor tab and report. Breezy day otherwise, with gusting winds and heavy showers. Cuckoo also heard in song. See Incidentals.	LD
23/04/2018	Breeding Raptor Survey	West	03:15 starting at 14:54	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Breezy day, with gusting winds and no Raptors observed. Snipe 'Chipping' and also Grasshopper Warbler and another Cuckoo in song. See incidentals.	LD

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
06/05/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:00 starting at 11:42	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Low lying cloud and mist this morning, cleared away to brighter skies and a warm afternoon, albeit breezy. Buzzard heard calling near VP-B. see Raptor tab for report.	LD
06/05/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	01:07 starting at 13:42	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Low lying cloud and mist this morning, cleared away to brighter skies and a warm afternoon, albeit breezy. Buzzard heard calling near VP-B. see Raptor tab for report.	LD
07/05/2018	Breeding Raptor survey	West - See field sheet for VP Grid Refs	03:10 starting at 11:42	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Low lying cloud and mist this morning, cleared away to brighter skies and a warm afternoon, albeit breezy. Buzzard heard calling near VP-B. see Raptor tab for report.	LD
10/05/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	02:00 starting at 07:31	Wind Speed and Direction:Strong Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Strong winds again and gusting at times. Sparrowhawk seen again near VP-A. Habitat at VP-B looks very good for Hen Harrier, but none observed.	LD
10/05/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	02:00 starting at 09:31	Wind Speed and Direction:Strong Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Strong winds again and gusting at times. Sparrowhawk seen again near VP-A. Habitat at VP-B looks very good for Hen Harrier, but none observed.	LD
10/05/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	02:13 starting at 11:31	Wind Speed and Direction:Strong Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Strong winds again and gusting at times. Sparrowhawk seen again near VP-A. Habitat at VP-B looks very good for Hen Harrier, but none observed.	LD

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
12/05/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:00 starting at 07:32	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Clear, bright and sunny morning. Gradually clouding in. Lots of Raptor activity today. Kestrel, Buzzards and Sparrowhawk observations. See Raptor tab for report.	LD
12/05/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:00 starting at 09:32	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Clear, bright and sunny morning. Gradually clouding in. Lots of Raptor activity today. Kestrel, Buzzards and Sparrowhawk observations. See Raptor tab for report.	LD
12/05/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:11 starting at 11:32	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Clear, bright and sunny morning. Gradually clouding in. Lots of Raptor activity today. Kestrel, Buzzards and Sparrowhawk observations. See Raptor tab for report.	LD
17/05/2018	Breeding Raptor survey	South - See field sheet for VP Grid Refs	04:00 starting at 09:27	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Fairly breezy day, but a Kestrel seen from VP-B. see Raptor tab for report. See also Incidentals.	LD
17/05/2018	Breeding Raptor survey	South - See field sheet for VP Grid Refs	02:08 starting at 13:27	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Fairly breezy day, but a Kestrel seen from VP-B. see Raptor tab for report. See also Incidentals.	LD
18/05/2018	Breeding Raptor survey	South - See field sheet for VP Grid Refs	03:06 starting at 10:34	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	New VP overlooking a large expanse of valley with upland moors and habitat suitable for Hen Harrier. Breezy day, and very little observed today.	LD

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
26/05/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	02:00 starting at 07:16	Wind Speed and Direction: Fresh Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Breezy on the exposed hills and mountainside at a previous VP, so headed further along a valley to a more sheltered spot and good vantage point overlooking conifers and grassland. Sparrowhawk seen from VP-A.	LD
26/05/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	01:06 starting at 09:16	Wind Speed and Direction: Fresh Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Breezy on the exposed hills and mountainside at a previous VP, so headed further along a valley to a more sheltered spot and good vantage point overlooking conifers and grassland. Sparrowhawk seen from VP-A.	LD
06/06/2018	Breeding Raptor survey	West - See field sheet for VP Grid Refs	02:00 starting at 10:22	Wind Speed and Direction: Gentle Breeze, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Warm, sunny day. Possible Hen Harrier foraging from VP-A previously, but no Raptors seen here today.	LD
06/06/2018	Breeding Raptor survey	West - See field sheet for VP Grid Refs	01:06 starting at 12:22	Wind Speed and Direction: Light Breeze, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Warm, sunny day. Possible Hen Harrier foraging from VP-A previously, but no Raptors seen here today.	LD
07/06/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	03:06 starting at 06:32	Wind Speed and Direction: Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Still, sunny morning, but no Raptors present. New VP (B) overlooking a large area of open moorland heather and grassland.	LD
08/06/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	02:00 starting at 06:35	Wind Speed and Direction: Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Warm, settled morning. Large areas of conifers and upland moor below VP-B. Looks a very good site and habitat for Hen Harrier, but still none observed.	LD



Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
08/06/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	01:07 starting at 08:35	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm, settled morning. Large areas of conifers and upland moor below VP-B. Looks a very good site and habitat for Hen Harrier, but still none observed.	LD
15/06/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:00 starting at 07:06	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Still a fresh to strong breeze today following yesterday's gales. New VP further west, with large open fields and dense grassland which looked good for a foraging or roosting Raptors. None seen today.	LD
15/06/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:00 starting at 09:06	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Still a fresh to strong breeze today following yesterday's gales. New VP further west, with large open fields and dense grassland which looked good for a foraging or roosting Raptors. None seen today.	LD
15/06/2018	Breeding Raptor survey	North - See field sheet for VP Grid Refs	02:09 starting at 11:06	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Still a fresh to strong breeze today following yesterday's gales. New VP further west, with large open fields and dense grassland which looked good for a foraging or roosting Raptors. None seen today. See also Incidentals.	LD
20/06/2018	Breeding Raptor survey	South - See field sheet for VP Grid Refs	02:00 starting at 09:14	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Blustery day and no Raptors seen, despite suitable habitat. Only Meadow Pipit, Hooded Crow and Mistle Thrush seen in flight.	LD
20/06/2018	Breeding Raptor survey	South - See field sheet for VP Grid Refs	04:16 starting at 11:14	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Blustery day and no Raptors seen, despite suitable habitat. Only Meadow Pipit, Hooded Crow and Mistle Thrush seen in flight.	LD



Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
23/06/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	03:11 starting at 14:01	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Warm afternoon, with a moderate breeze and light, wispy cloud. Calm and quiet. No Raptors seen.	LD
24/06/2018	Breeding Raptor survey	East - See field sheet for VP Grid Refs	03:04 starting at 09:51	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Bright, warm and sunny day. Kestrel seen in flight at VP-A. see Raptor tab and map.	LD
27/06/2018	Breeding Raptor survey	West - See field sheet for VP Grid Refs	03:00 starting at 06:34	Wind Speed and Direction: Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Calm and bright morning. Kestrel seen in flight over an open area of moorland. See Raptor tab and map for flight-line.	LD
15/07/2018	Breeding Raptor Survey	EAST	06:00 starting at 10:35	Wind Speed and Direction: Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: Heavy Showers; Frost: None ; Snow: None	concentrated on East side of survey area in poor weather conditions....single female K observed from VP7	ED
16/07/2018	Breeding Raptor Survey	WEST	06:00 starting at 09:40	Wind Speed and Direction: Fresh Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Concentrated on west side no raptors seen.	ED
17/07/2018	Breeding Raptor Survey	SOUTH	06:00 starting at 09:45	Wind Speed and Direction: Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None ; Snow: None		ED

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
18/07/2018	Breeding Raptor Survey	NORTH	03:30 starting at 09:05	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	reduced survey in NORTH Section due to area being agricultural and not ideal for breeding raptors	ED
18/07/2018	Breeding Raptor Survey	WEST	03:00 starting at 12:35	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Surveyed most potential sites identified on the WEST Section in the afternoon	ED
19/07/2018	Breeding Raptor Survey	SOUTH	03:00 starting at 09:15	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Surveyed most potential sites identified on the SOUTH Section in the afternoon	ED
19/07/2018	Breeding Raptor Survey	EAST	03:00 starting at 12:15	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Surveyed most potential sites identified on the EAST Section in the afternoon	ED
01/04/2019	Breeding Raptor Survey	South	01:00 starting at 07:42	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Modrate breeze blowing in from the west, with light rain and drizzle throughtout. No Raptor's or Target Species seen.	L. Dark
01/04/2019	Breeding Raptor Survey	South	02:00 starting at 08:42	Wind Speed and Direction:Moderate Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Modrate breeze blowing in from the west, with light rain and drizzle throughtout. No Raptor's or Target Species seen.	L. Dark
03/04/2019	Breeding Raptor Survey	North	02:00 starting at 11:48	Wind Speed and Direction:Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Fresh to strong breeze today, alongside heavy showers, with bright spells in-between. Fairly quiet at the VP locations, and no Target Species.	L. Dark

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
03/04/2019	Breeding Raptor Survey	North	04:16 starting at 13:48	Wind Speed and Direction:Strong Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	Fresh to strong breeze today, alongside heavy showers, with bright spells in-between. Fairly quiet at the VP locations, and no Target Species.	L. Dark
05/04/2019	Breeding Raptor Survey	South	04:00 starting at 11:21	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A cold day and very quiet. Saw a male Hen Harrier last year at VP3 and also had Curlew calling closeby; but nothing of note was seen today, bar the first House Martins.	L. Dark
05/04/2019	Breeding Raptor Survey	South	02:21 starting at 15:21	Wind Speed and Direction:Moderate Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A cold day and very quiet. Saw a male Hen Harrier last year at VP3 and also had Curlew calling closeby; but nothing of note was seen today, bar the first House Martins.	L. Dark
08/04/2019	Breeding Raptor Survey	North	01:00 starting at 07:31	Wind Speed and Direction:Light Air, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Some light rain around, but very calm, albeit very quiet. No Raptor's observed today from the vantage point.	L. Dark
08/04/2019	Breeding Raptor Survey	North	02:00 starting at 08:31	Wind Speed and Direction:Light Breeze, E; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Some light rain around, but very calm, albeit very quiet. No Raptor's observed today from the vantage point.	L. Dark
16/04/2019	Breeding Raptor Survey	North	02:00 starting at 17:28	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Calm and settled evening, but very quiet with no Raptor's seen on site. See also incidentals.	L. Dark
16/04/2019	Breeding Raptor Survey	North	01:00 starting at 19:28	Wind Speed and Direction:Light Air, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Calm and settled evening, but very quiet with no Raptor's seen on site. See also incidentals.	L. Dark

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
25/04/2019	Breeding Raptor Survey	North	04:00 starting at 09:26	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Fairly quiet around VP2, but heard two new Cuckoo arrivals at VP1 and also saw a pair of Buzzard's travelling in flight. See Raptor tab and map for location.	L. Dark
25/04/2019	Breeding Raptor Survey	North	02:25 starting at 13:26	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Fairly quiet around VP2, but heard two new Cuckoo arrivals at VP1 and also saw a pair of Buzzard's travelling in flight. See Raptor tab and map for location.	L. Dark
29/04/2019	Breeding Raptor Survey	South	01:00 starting at 06:45	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A moderate southerly breeze and very quiet, except for a few Hooded Crow's and Raven's in flight over the farmland. No Target Species seen.	L. Dark
29/04/2019	Breeding Raptor Survey	South	02:00 starting at 07:45	Wind Speed and Direction:Moderate Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A moderate southerly breeze and very quiet, except for a few Hooded Crow's and Raven's in flight over the farmland. No Target Species seen.	L. Dark
02/05/2019	Breeding Raptor Survey	North	06:04 starting at 06:02	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Fairly calm day, with low level cloud and a gentle breeze. Saw a pair of Buzzard's soaring initially, then travelling in flight around 0.5km north-west of VP6. Also saw a male Hen Harrier flying further afield >2km outside the buffer. See Incidentals and Breeding Raptor tab for more details.	L. Dark
07/05/2019	Breeding Raptor Survey	East	04:00 starting at 06:04	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A calm, but cold morning looking over two separate valley's. No Raptor's seen on site, but had a Snipe 'drumming' on the sloping hillside, above VP10. Also saw three Mallard's travelling in flight from VP8. See Raptor tab and map for location.	L. Dark

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
07/05/2019	Breeding Raptor Survey	East	02:06 starting at 10:04	Wind Speed and Direction:Calm, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	A calm, but cold morning looking over two separate valley's. No Raptor's seen on site but had a Snipe 'drumming' on the sloping hillside, above VP10. Also saw three Mallard's travelling in flight from VP8. See Raptor tab and map for location.	L. Dark
08/05/2019	Breeding Raptor Survey	West	02:00 starting at 14:56	Wind Speed and Direction:Fresh Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Fresh to strong breeze blowing across the moors and open fields, with no Target Species seen today. Did see the first Swifts of the year and some other notable Passerines. See Incidentals.	L. Dark
08/05/2019	Breeding Raptor Survey	West	01:04 starting at 16:56	Wind Speed and Direction:Strong Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Fresh to strong breeze blowing across the moors and open fields, with no Target Species seen today. Did see the first Swifts of the year and some other notable Passerines. See Incidentals.	L. Dark
09/05/2019	Breeding Raptor Survey	West	04:00 starting at 06:00	Wind Speed and Direction:Calm, NE; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Overcast and settled morning, with low lying cloud on the higher hills and showers, turning to rain at the end of the survey. Heard a Snipe chipping from VP 3 on and off throughout in the same location, followed by a second Snipe drumming, further away to the south-east. Also saw what looked like a Buzzard travelling across open moorland on the way out. see Incidentals and Raptor tab.	L. Dark

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
09/05/2019	Breeding Raptor Survey	West	02:06 starting at 10:00	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Overcast and settled morning, with low lying cloud on the higher hills and showers, turning to rain at the end of the survey. Heard a Snipe chipping from VP 3 on and off throughout in the same location, followed by a second Snipe drumming, further away to the south-east. Also saw what looked like a Buzzard travelling across open moorland on the way out. see Incidentals and Raptor tab.	L. Dark
22/05/2019	Breeding Raptor Survey	North	02:00 starting at 09:17	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very calm and settled morning, with regular Raptor's in flight. See Breeding Raptor tab for more details.	L. Dark
22/05/2019	Breeding Raptor Survey	North	01:00 starting at 17:31	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very calm and settled morning, with regular Raptor's in flight. See Breeding Raptor tab for more details. NB Survey split due to training new staff.	L. Dark
24/05/2019	Breeding Raptor Survey	East	04:00 starting at 06:04	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very calm morning again, with barely a breath of wind. Saw a Sparrowhawk in flight over conifers from VP9, before it landed in the trees and out of view. Also had numerous Cuckoo's. See Incidentals.	L. Dark
24/05/2019	Breeding Raptor Survey	East	02:08 starting at 10:04	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very calm morning again, with barely a breath of wind. Saw a Sparrowhawk in flight over conifers from VP9, before it landed in the trees and out of view. Also had numerous Cuckoo's. See Incidentals.	L. Dark
08/07/2019	Breeding Raptor Survey	3	02:00 starting at 06:00	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
08/07/2019	Breeding Raptor Survey	4	03:00 starting at 08:30	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
11/07/2019	Breeding Raptor Survey	2	02:00 starting at 06:30	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
11/07/2019	Breeding Raptor Survey	1	02:00 starting at 09:00	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
17/07/2019	Breeding Raptor Survey	5	02:30 starting at 06:20	Wind Speed and Direction:Light Breeze, SW; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Heavy Rain; Frost: None ; Snow: None		JK
17/07/2019	Breeding Raptor Survey	6	02:00 starting at 09:15	Wind Speed and Direction:Light Breeze, SW; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Heavy Rain; Frost: None ; Snow: None		JK
23/07/2019	Breeding Raptor Survey	7	02:30 starting at 09:30	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		JK
24/07/2019	Breeding Raptor Survey	8	02:00 starting at 10:15	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK



Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
31/07/2019	Breeding Raptor Survey	9	02:00 starting at 15:30	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
31/07/2019	Breeding Raptor Survey	10	02:00 starting at 17:35	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK
01/06/2019	Breeding Raptor Survey	6 & 7	02:00 starting at 06:06	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Overcast throughout, with a gentle to moderate breeze. Plenty of Passerine's in flight and song, and also a brief view of a Sparrowhawk flying over farmland and scrub. See map for location and Incidentals for noteworthy Passerine's.	L. Dark
01/06/2019	Breeding Raptor Survey	6 & 7	04:05 starting at 08:06	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Overcast throughout, with a gentle to moderate breeze. Plenty of Passerine's in flight and song, and also a brief view of a Sparrowhawk flying over farmland and scrub. See map for location and Incidentals for noteworthy Passerine's.	L. Dark
01/06/2019	Breeding Raptor Survey	8	01:00 starting at 15:07	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Intermittent clouds and clear spells, alongside a moderate breeze and a quiet survey in terms of species. A few notable Passerine's, but no Raptor's or Target Species seen.	L. Dark
01/06/2019	Breeding Raptor Survey	8	02:03 starting at 16:07	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Intermittent clouds and clear spells, alongside a moderate breeze and a quiet survey in terms of species. A few notable Passerine's, but no Raptor's or Target Species seen.	L. Dark



Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
02/06/2019	Breeding Raptor Survey	1 & 2	04:00 starting at 06:05	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Fresh breeze this morning, with showers of light rain for part of the survey. Buzzard and a Kestrel (silhouette) seen from VP's 1 & 2. See Breeding Raptor tab and map for location.	L. Dark
02/06/2019	Breeding Raptor Survey	1 & 2	02:07 starting at 10:05	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Fresh breeze this morning, with showers of light rain for part of the survey. Buzzard and a Kestrel (silhouette) seen from VP's 1 & 2. See Breeding Raptor tab and map for location.	L. Dark
03/06/2019	Breeding Raptor Survey	3, 4 & 5	02:00 starting at 04:55	Wind Speed and Direction: Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Winds gradually increasing from the south-west, alongside heavy showers at the end of the survey. Three separate Snipe seen or heard drumming and/or chipping from the two VP's. See Breeding Raptor tab and map for location.	L. Dark
03/06/2019	Breeding Raptor Survey	3, 4 & 5	04:00 starting at 06:55	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Winds gradually increasing from the south-west, alongside heavy showers at the end of the survey. Three separate Snipe seen or heard drumming and/or chipping from the two VP's. See Breeding Raptor tab and map for location.	L. Dark
03/06/2019	Breeding Raptor Survey	3, 4 & 5	03:00 starting at 10:55	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: None	Winds gradually increasing from the south-west, alongside heavy showers at the end of the survey. Three separate Snipe seen or heard drumming and/or chipping from the two VP's. See Breeding Raptor tab and map for location.	L. Dark

Date	Survey Method	Area/RVP	Survey Duration	Weather Conditions	Comments	Surveyor
04/06/2019	Breeding Raptor Survey	9 & 10	04:00 starting at 06:08	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Overcast day, with fairly light winds. Heard a Snipe chipping in reeds and rough grassland on the hillside above VP 10, which then began drumming in display flight a while later. This was in the same location the bird was observed during the last survey. See Raptor tab and map for location.	L. Dark
04/06/2019	Breeding Raptor Survey	9 & 10	02:04 starting at 10:08	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Overcast day, with fairly light winds. Heard a Snipe chipping in reeds and rough grassland on the hillside above VP 10, which then began drumming in display flight a while later. This was in the same location the bird was observed during the last survey. See Raptor tab and map for location.	L. Dark

Table 1-4 Breeding Woodcock Survey Effort

Date	Survey Method	Transect/ Area	Survey Duration	Weather Conditions	Comments	Surveyor
08/06/2018	Breeding Woodcock Survey		02:00 starting at 21:05	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 70 Rain: None; Frost: None ; Snow: None		AM
09/06/2018	Breeding Woodcock Survey		02:05 starting at 21:05	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 80 Rain: None; Frost: None ; Snow: None		AM
12/06/2018	Breeding Woodcock Survey		02:00 starting at 21:07	Wind Speed and Direction:Calm, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		AM
18/06/2018	Breeding Woodcock Survey		02:00 starting at 21:10	Wind Speed and Direction:Light Air, W ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 65 Rain: None; Frost: None ; Snow: None		AM
06/05/2019	Breeding Woodcock Survey		02:00 starting at 20:10	Wind Speed and Direction:, SSW; Visibility: ; Cloud Height: ; Cloud Cover %: 90 Rain: ; Frost: ; Snow:	no woodcock or target species	AM
16/05/2019	Breeding Woodcock Survey		02:00 starting at 20:30	Wind Speed and Direction:, ESE; Visibility: ; Cloud Height: ; Cloud Cover %: 60 Rain: ; Frost: ; Snow:	no woodcock or target species	AM
04/06/2019	Breeding Woodcock Survey	1	02:01 starting at 20:58	Wind Speed and Direction:Gentle Breeze, NNW; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	Continuous light rain.	PW

Date	Survey Method	Transect/ Area	Survey Duration	Weather Conditions	Comments	Surveyor
05/06/2019	Breeding Woodcock Survey	2	01:00 starting at 20:59	Wind Speed and Direction:Light Breeze, NW; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 100 Rain: Heavy Showers; Frost: None ; Snow: None	Very foggy/misty. Limited visibility 50-100m. No woodcock seen.	PW
05/06/2019	Breeding Woodcock Survey	2	01:00 starting at 21:59	Wind Speed and Direction:Light Breeze, NW; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	Very foggy/misty. Limited visibility 50-100m. No woodcock seen.	PW
12/06/2019	Breeding Woodcock Survey	1	02:05 starting at 21:06	Wind Speed and Direction:Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	3 vans and about 10 people footing/working turf on arrival.	PW
13/06/2019	Breeding Woodcock Survey	2	01:00 starting at 21:07	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		PW
13/06/2019	Breeding Woodcock Survey	2	01:05 starting at 22:07	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		PW

Table 1-5 Red Grouse Survey Effort

Date	Survey Method	Transect	Survey Duration	Weather Conditions	Comments	Surveyor
24/03/2018	Red Grouse Survey	D	00:22 starting at 10:16	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33 Rain: None; Frost: None ; Snow: None		CP
24/03/2018	Red Grouse Survey	E	00:29 starting at 11:01	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33 Rain: None; Frost: None ; Snow: None		CP
24/03/2018	Red Grouse Survey	C	00:39 starting at 13:04	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 50-70 Rain: None; Frost: None ; Snow: None	Sunny intervals	CP
24/03/2018	Red Grouse Survey	A	00:45 starting at 15:40	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 80 Rain: Heavy Showers; Frost: None ; Snow: None	Sunny intervals; cloud bands.	CP
24/03/2018	Red Grouse Survey	B	00:30 starting at 17:00	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 50 Rain: Heavy Showers; Frost: None ; Snow: None	Sunny intervals; cloud bands.	CP
11/03/2019	Red Grouse Survey	B	00:41 starting at 09:20	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		JC
11/03/2019	Red Grouse Survey	A	00:39 starting at 11:26	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		JC

Date	Survey Method	Transect	Survey Duration	Weather Conditions	Comments	Surveyor
11/03/2019	Red Grouse Survey	E	00:29 starting at 12:41	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		JC
11/03/2019	Red Grouse Survey	D	00:35 starting at 14:20	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None		JC
13/03/2019	Red Grouse Survey	C	00:37 starting at 12:08	Wind Speed and Direction:Light Breeze, ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		JC

Table 1-6 Hen Harrier Roost Survey Effort

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
23/10/2017	Hen Harrier Roost Survey	HH01	02:00 starting at 16:50	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: <150m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None	Sunset: 18:20. VP covers southern part of office-mapped area (i.e. south of track and powerline, which forms a visual barrier). No HH activity recorded.	CP
28/10/2017	Hen Harrier Roost Survey	HH02	02:00 starting at 16:37	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Short periods of drizzle; Frost: None ; Snow: None	Sunset: 18:07. VP is at one point considered best of several in a small area. Views are restricted by Birch scrub and small blocks of forestry. The area covered is within the office-mapped "very suitable" area, but does not cover areas further to the west. No HH activity recorded.	CP
29/10/2017	Hen Harrier Roost Survey	HH03	02:00 starting at 15:35	Wind Speed and Direction:Calm, N/A; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	Sunset: 17:05 No HH activity recorded.	CP
30/10/2017	Hen Harrier Roost Survey	HH04	02:00 starting at 14:47	Wind Speed and Direction:Light Air, S; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Short periods of drizzle; Frost: None ; Snow: None	Sunset: 17:03. Some mist/fog. Fog thick in areas outside VP field of view and at greater altitude. No HH activity recorded.	CP
12/12/2017	Hen Harrier Roost Survey	HHVP2	02:00 starting at 14:30	Wind Speed and Direction:Fresh Breeze, sw; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Light Showers; Frost: On site; Snow: Ground		DM

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
12/12/2017	Hen Harrier Roost Survey	HHVP2	00:30 starting at 16:30	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: On site; Snow: Ground		DM
13/12/2017	Hen Harrier Roost Survey	HHVP4	00:50 starting at 14:40	Wind Speed and Direction: Fresh Breeze, w; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: Ground		DM
13/12/2017	Hen Harrier Roost Survey	HHVP4	01:30 starting at 15:30	Wind Speed and Direction: Fresh Breeze, w; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: Ground		DM
18/12/2017	Hen Harrier Roost Survey	HHVP1	01:00 starting at 14:30	Wind Speed and Direction: Gentle Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
18/12/2017	Hen Harrier Roost Survey	HHVP1	01:30 starting at 15:30	Wind Speed and Direction: Gentle Breeze, s; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Drizzle Mist; Frost: None ; Snow: None		DM



Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
19/12/2017	Hen Harrier Roost Survey	HHVP3	02:00 starting at 14:30	Wind Speed and Direction:Gentle Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
19/12/2017	Hen Harrier Roost Survey	HHVP3	00:40 starting at 16:30	Wind Speed and Direction:Moderate Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
24/01/2018	Hen Harrier Roost Survey	Site/VP3	01:00 starting at 15:08	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: Heavy Showers; Frost: None ; Snow: None	Gale force winds overnight and strong gusts on site today. Very little bird activity	LD
24/01/2018	Hen Harrier Roost Survey	Site/VP3	01:30 starting at 16:08	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Gale force winds overnight and strong gusts on site today. Very little bird activity	LD
26/01/2018	Hen Harrier Roost Survey	Site/VP1	01:54 starting at 15:30	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain throughout and very heavy at the end. Hare seen on the way out close to the VP. Also, two Woodcocks on the way home.	LD

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
29/01/2018	Hen Harrier Roost Survey	Site/VP2	02:13 starting at 15:32	Wind Speed and Direction:Gentle Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain throughout and heavy at the end. Looks like very good habitat for Hen Harrier to roost, but the best area had a lot of livestock, so it was never going to land there. Flushed a Woodcock on the way out (see incidentals).	LD
05/02/2018	Hen Harrier Roost Survey	Site/VP4	02:16 starting at 15:44	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: All Day	Calm, but very quiet. Couple of birds heard calling, but nothing seen in flight. Light rain turning to quite heavy snow, with reduced visibility at the end.	LD
14/02/2018	Hen Harrier Roost survey	HH03	02:17 starting at 16:01	Wind Speed and Direction:Fresh Breeze, sw; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: On site; Snow: Ground	Cold, crisp day with snow and ice on the ground. Few birds seen in flight, bar a flock of Crossbills. No HH.	LD
15/02/2018	Hen Harrier Roost survey	HH04	02:17 starting at 16:01	Wind Speed and Direction:Fresh Breeze, W; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: On site; Snow: All Day	Heavy snow at the start and end of the survey. Cold and very quiet. No HH.	LD
16/02/2018	Hen Harrier Roost survey	HH01	02:17 starting at 16:01	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: On site; Snow: Ground	Gusting winds, with light rain and snow on site. Very quiet all round. No HH.	LD

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
18/02/2018	Hen Harrier Roost survey	HH02	02:17 starting at 16:01	Wind Speed and Direction:Light Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Very light drizzle throughout and very quiet. The area to the west looks really good for roosting Hen Harrier, but once again has livestock present in the field. No HH.	LD
23/02/2018	Hen Harrier Roost survey	HH04	03:00 starting at 15:26	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		RW
25/02/2018	Hen Harrier Roost survey	HH02	03:00 starting at 15:30	Wind Speed and Direction:Light Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		RW
27/02/2018	Hen Harrier Roost survey	HH03	03:00 starting at 15:34	Wind Speed and Direction:Light Breeze, E; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		RW
28/02/2018	Hen Harrier Roost survey	HH01	03:00 starting at 15:36	Wind Speed and Direction:Gentle Breeze, E; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Light Showers; Frost: None ; Snow: None		RW

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
11/03/2018	Hen Harrier Roost Survey	HH03	01:21 starting at 17:55	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Calm and quiet, with some Passerines such as Song Thrush and Goldcrest singing. No Hen Harriers.	LD
23/03/2018	Hen Harrier Roost Survey	Site 2	02:19 starting at 18:28	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None ; Snow: None	Late March so plenty of singing passerines. No HH observed	LD
25/03/2018	Hen Harrier Roost Survey	Site 1	02:19 starting at 18:28	Wind Speed and Direction:Light Air, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Male Hen Harrier seen at start of the survey, flying low over the ground. Flew east for around 100m before landing in dense heather. Not seen again. Possible Roost.	LD
29/03/2018	Hen Harrier Roost Survey	Site 4	02:19 starting at 18:28	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: Light Showers; Frost: None ; Snow: None	Light rain on and off throughout the survey. Very quiet, only a pair of mistle thrush. No HH	LD
16/10/2018	Hen Harrier Roost Survey	HHVP3	01:00 starting at 17:00	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
16/10/2018	Hen Harrier Roost Survey	HHVP3	01:00 starting at 18:00	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/10/2018	Hen Harrier Roost Survey	HHVP4	01:00 starting at 17:00	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/10/2018	Hen Harrier Roost Survey	HHVP4	01:00 starting at 18:00	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
19/10/2018	Hen Harrier Roost Survey	HHVP2	01:00 starting at 17:00	Wind Speed and Direction:Light Air, S ; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
19/10/2018	Hen Harrier Roost Survey	HHVP2	01:00 starting at 18:00	Wind Speed and Direction:Light Air, S ; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
26/10/2018	Hen Harrier Roost Survey	HHVP1	01:00 starting at 16:45	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
26/10/2018	Hen Harrier Roost Survey	HHVP1	01:00 starting at 17:45	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
06/11/2018	Hen Harrier Roost Survey	HHVP2	02:00 starting at 15:50	Wind Speed and Direction:Light Air, NE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 55 Rain: None; Frost: None ; Snow: None		J.Kennedy
08/11/2018	Hen Harrier Roost Survey	HHVP3	02:00 starting at 15:44	Wind Speed and Direction:Calm, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33 Rain: None; Frost: None ; Snow: None		J.Kennedy
28/11/2018	Hen Harrier Roost Survey	HHVP4	02:00 starting at 15:15	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None		J.Kennedy
30/11/2018	Hen Harrier Roost Survey	HHVP1	02:00 starting at 15:15	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 100 Rain: Heavy Showers; Frost: None ; Snow: None		J.Kennedy
03/12/2018	Hen Harrier Roost Survey	HH02	02:00 starting at 15:15	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud		JK

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
				Height: >500m; Cloud Cover %: <33 Rain: None; Frost: None ; Snow: None		
05/12/2018	Hen Harrier Roost Survey	HH01	02:00 starting at 15:15	Wind Speed and Direction:Light Breeze, S; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
10/12/2018	Hen Harrier Roost Survey	HH03	02:00 starting at 15:15	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
11/12/2018	Hen Harrier Roost Survey	HH04	02:00 starting at 15:15	Wind Speed and Direction:Moderate Breeze, SE; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
03/01/2019	Hen Harrier Roost Survey	HH03	02:00 starting at 15:30	Wind Speed and Direction:Light Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
08/01/2019	Hen Harrier Roost Survey	HH02	02:00 starting at 15:30	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK

Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
10/01/2019	Hen Harrier Roost Survey	HH04	02:00 starting at 15:30	Wind Speed and Direction:Light Air, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
24/01/2019	Hen Harrier Roost Survey	HH01	02:00 starting at 16:00	Wind Speed and Direction:Light Breeze, NW; Visibility: No Visibility; Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		JK
07/02/2019	Hen Harrier Roost Survey	HH01	02:00 starting at 07:50	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-60 Rain: None; Frost: None ; Snow: None		JK
12/02/2019	Hen Harrier Roost Survey	HH03	02:14 starting at 15:55	Wind Speed and Direction:Moderate Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None	Gusting winds earlier on a VP, but more sheltered here for the Hen Harrier survey. More Passerine's in song than of late, but no Raptor's observed.	L. Dark
13/02/2019	Hen Harrier Roost Survey	HH04	02:14 starting at 16:02	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Stiff breeze all day, and no birds seen in flight on this survey. Very quiet, with no Hen Harrier's observed.	L. Dark
19/02/2019	Hen Harrier Roost Survey	HH02	02:00 starting at 16:50	Wind Speed and Direction:Moderate Breeze, W; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %:		JK



Date	Survey Method	HHVP/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
				100 Rain: Heavy Rain; Frost: None ; Snow: None		
05/03/2019	Hen Harrier Roost Survey	HH01	02:00 starting at 16:45	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
14/03/2019	Hen Harrier Roost Survey	HH04	02:00 starting at 17:00	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Heavy Rain; Frost: None ; Snow: None		JK
15/03/2019	Hen Harrier Roost Survey	HH03	02:00 starting at 17:00	Wind Speed and Direction:Light Air, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
25/03/2019	Hen Harrier Roost Survey	HH02	02:00 starting at 17:30	Wind Speed and Direction:Calm, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK

Table 1-7 Winter Transect Survey Effort

Date	Survey Method	Transect/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
29/10/2017	Winter Walkover Survey		02:25 starting at 11:00	Wind Speed and Direction:Light Air, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 25 Rain: None; Frost: None ; Snow: None		CP
30/10/2017	Winter Walkover Survey		02:30 starting at 11:40	Wind Speed and Direction:Light Breeze, S; Visibility: Poor (<km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Short periods of drizzle; Frost: None ; Snow: None	Some fog second half	CP
18/12/2017	Winter Walkover Survey		01:00 starting at 11:00	Wind Speed and Direction:Gentle Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 2 Rain: None; Frost: None ; Snow: None		DM
18/12/2017	Winter Walkover Survey		02:15 starting at 12:00	Wind Speed and Direction:Light Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
19/12/2017	Winter Walkover Survey		02:00 starting at 11:00	Wind Speed and Direction:Gentle Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
19/12/2017	Winter Walkover Survey		01:00 starting at 13:00	Wind Speed and Direction:Moderate Breeze, s; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		DM
26/01/2018	Winter Walkover Survey	South	03:04 starting at 12:24	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None		LD

Date	Survey Method	Transect/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
29/01/2018	Winter Walkover Survey	North	03:06 starting at 12:24	Wind Speed and Direction:Strong Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 1 Rain: None; Frost: None ; Snow: None	Breezy, with gusting, gale force winds in exposed areas. Four large conifers blown down on site, three on the main site.	LD
25/03/2018	Winter Walkover Survey	South/West	03:07 starting at 14:45	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	Gentle Breeze. Plenty of birds in song	LD
16/10/2018	Winter Walkover Survey	WW1	01:00 starting at 14:00	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
16/10/2018	Winter Walkover Survey	WW1	01:00 starting at 15:00	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
16/10/2018	Winter Walkover Survey	WW1	01:00 starting at 16:00	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/10/2018	Winter Walkover Survey	WW2	01:00 starting at 14:00	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/10/2018	Winter Walkover Survey	WW2	01:00 starting at 15:00	Wind Speed and Direction:Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	Transect/ Survey Area	Survey Duration	Weather Conditions	Comments	Surveyor
17/10/2018	Winter Walkover Survey	WW2	01:00 starting at 16:00	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
17/12/2018	Winter Walkover Survey	1	04:00 starting at 10:30	Wind Speed and Direction: Strong Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None		JK
08/01/2019	Winter Walkover Survey		05:00 starting at 10:00	Wind Speed and Direction: Light Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		JK
22/03/2019	Winter Walkover Survey	1	03:30 starting at 13:00	Wind Speed and Direction: Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 60-100 Rain: None; Frost: None ; Snow: None		JK

Table 1-8 Boleybaun Surveys (VP2 Survey Effort)

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
28/09/2017	Vantage Point Survey	2	01:00 starting at 13:50	Wind Speed and Direction:Gentle Breeze, SE; Visibility: ; Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Light rain on and off throughout the survey, sometimes prolonged.	LD
28/09/2017	Vantage Point Survey	2	02:00 starting at 14:50	Wind Speed and Direction:Moderate Breeze, SE; Visibility: ; Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain on and off throughout the survey, sometimes prolonged.	LD
28/09/2017	Vantage Point Survey	2	01:00 starting at 17:20	Wind Speed and Direction:Moderate Breeze, SE; Visibility: ; Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Light rain on and off throughout the survey, sometimes prolonged.	LD
28/09/2017	Vantage Point Survey	2	01:00 starting at 18:20	Wind Speed and Direction:Moderate Breeze, SE; Visibility: ; Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain on and off throughout the survey, sometimes prolonged.	LD
28/09/2017	Vantage Point Survey	2	01:00 starting at 19:20	Wind Speed and Direction:Moderate Breeze, SE; Visibility: ; Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Light rain on and off throughout the survey, sometimes prolonged.	LD
27/10/2017	Vantage Point Survey	2	06:30 starting at 12:39	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		CP
14/11/2017	Vantage Point Survey	2	01:00 starting at 14:35	Wind Speed and Direction:Light Breeze, W; Visibility: Moderate (1-2km); Cloud Height: <150m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Light rian and heavy fog prevented the first session of the VP survey this morning. Brightened up later, although still a little misty at times during the first hour.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
14/11/2017	Vantage Point Survey	2	02:00 starting at 15:35	Wind Speed and Direction:Light Breeze, W; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Light rian and heavy fog prevented the first session of the VP survey this morning. Brightened up later, although still a little misty at times during the first hour.	LD
21/11/2017	Vantage Point Survey	2	01:00 starting at 10:55	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Continued from 14/11/17. Breezy and very quiet.	LD
21/11/2017	Vantage Point Survey	2	01:00 starting at 11:55	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: None	Continued from 14/11/17. Breezy and very quiet.	LD
21/11/2017	Vantage Point Survey	2	01:00 starting at 12:55	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: None	Continued from 14/11/17. Breezy and very quiet.	LD
14/12/2017	Vantage Point Survey	2	01:00 starting at 07:45	Wind Speed and Direction:Fresh Breeze, w; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: Ground		DM
14/12/2017	Vantage Point Survey	2	02:00 starting at 08:45	Wind Speed and Direction:Fresh Breeze, w; Visibility: Moderate (1-2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: Ground		DM
14/12/2017	Vantage Point Survey	2	01:00 starting at 11:15	Wind Speed and Direction:Moderate Breeze, w; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: Ground		DM

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
14/12/2017	Vantage Point Survey	2	01:00 starting at 12:15	Wind Speed and Direction:Gentle Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: Light Showers; Frost: None ; Snow: Ground		DM
14/12/2017	Vantage Point Survey	2	01:00 starting at 13:15	Wind Speed and Direction:Gentle Breeze, nw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: Ground		DM
19/01/2018	Vantage Point Survey	2	01:00 starting at 11:17	Wind Speed and Direction:Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: Heavy; Snow: Ground	Deep snow on site. Winds increasing steadily, and with it heavy snowfall during the third hour. Survey abandoned due to the heavy snow and poor visibility.	LD
19/01/2018	Vantage Point Survey	2	01:00 starting at 12:17	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: Heavy; Snow: Ground	Deep snow on site. Winds increasing steadily, and with it heavy snowfall during the third hour. Survey abandoned due to the heavy snow and poor visibility.	LD
19/01/2018	Vantage Point Survey	2	01:00 starting at 13:17	Wind Speed and Direction:Strong Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: Heavy; Snow: Ground	Deep snow on site. Winds increasing steadily, and with it heavy snowfall during the third hour. Survey abandoned due to the heavy snow and poor visibility.	LD
22/01/2018	Vantage Point Survey	2	01:00 starting at 14:52	Wind Speed and Direction:Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: Ground	Still some snow on site, but much milder. Winds increasing to strong gusts, and no birds seen in the last two hours. Survey finished from 19/1/18 which was suspended due to snow.	LD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
22/01/2018	Vantage Point Survey	2	02:00 starting at 15:52	Wind Speed and Direction:Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None ; Snow: Ground	Still some snow on site, but much milder. Winds increasing to strong gusts, and no birds seen in the last two hours. Survey finished from 19/1/18 which was suspended due to snow.	LD
22/02/2018	Vantage Point Survey	2	03:00 starting at 12:24	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	Ringtail HH sighted	RW
22/02/2018	Vantage Point Survey	2	03:00 starting at 15:54	Wind Speed and Direction:Gentle Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		RW
01/03/2018	Vantage Point Survey	2	1:02 starting at 12:39	Wind Speed and Direction:Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: Heavy; Snow: All Day	Snow and ice on site, with a bitterly cold breeze. Instructed by my Line Manager to abandon the survey due to a sever weather warning.	LD
09/03/2018	Vantage Point Survey	2	01:000 starting at 13:55	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Cold breeze, and still a smattering of snow on site. Few birds in flight all day. Completed from 1/3/2018.	LD
09/03/2018	Vantage Point Survey	2	01:00 starting at 16:25	Wind Speed and Direction:Gentle Breeze, NE; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Cold breeze, and still a smattering of snow on site. Few birds in flight all day. Completed from 1/3/2018.	LD



Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
09/03/2018	Vantage Point Survey	2	02:00 starting at 17:25	Wind Speed and Direction:Gentle Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: Ground	Cold breeze, and still a smattering of snow on site. Few birds in flight all day. Completed from 1/3/2018.	LD
05/04/2018	Vantage Point Survey	2	06:45 starting at 07:12	Wind Speed and Direction:Light Air, ESE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0 Rain: None; Frost: None ; Snow: None		SF
04/05/2018	Vantage Point Survey	2	06:30 starting at 05:00	Wind Speed and Direction:Light Air, SSW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None	LOW CLOUD 278M VIS=2KM, CLEARING LATER	SHAY FENNELLY
26/06/2018	Vantage Point Survey	2	03:00 starting at 14:40	Wind Speed and Direction:Light Air, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: None	No sightings	RW
26/06/2018	Vantage Point Survey	2	03:00 starting at 18:10	Wind Speed and Direction:Light Air, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: None	No sightings	RW
13/07/2018	Vantage Point Survey	2	03:00 starting at 09:17	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	No sightings	RW
13/07/2018	Vantage Point Survey	2	03:00 starting at 12:47	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	No sightings	RW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
14/08/2018	Vantage Point Survey	2	01:00 starting at 08:00	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: ; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
14/08/2018	Vantage Point Survey	2	01:00 starting at 09:00	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Light Showers; Frost: None; Snow: None		DM
14/08/2018	Vantage Point Survey	2	01:00 starting at 10:00	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: Drizzle Mist; Frost: None; Snow: None		DM
14/08/2018	Vantage Point Survey	2	03:00 starting at 11:30	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
19/09/2018	Vantage Point Survey	2	03:00 starting at 13:00	Wind Speed and Direction: Strong Breeze, w; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM
20/09/2018	Vantage Point Survey	2	02:00 starting at 06:15	Wind Speed and Direction: Gentle Breeze, sw; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66% Rain: None; Frost: None; Snow: None		DM
20/09/2018	Vantage Point Survey	2	01:00 starting at 08:15	Wind Speed and Direction: Moderate Breeze, sw; Visibility: Good (>2km); Cloud Height: ; Cloud Cover %: 66-100% Rain: None; Frost: None; Snow: None		DM

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
19/10/2018	Vantage Point Survey	2	01:00 starting at 13:30	Wind Speed and Direction:Calm, W; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
19/10/2018	Vantage Point Survey	2	01:00 starting at 14:30	Wind Speed and Direction:Calm, W; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
19/10/2018	Vantage Point Survey	2	01:00 starting at 15:30	Wind Speed and Direction:Calm, W; Visibility: Limited (<500m); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
22/10/2018	Vantage Point Survey	2	01:00 starting at 16:15	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
22/10/2018	Vantage Point Survey	2	01:00 starting at 17:15	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
22/10/2018	Vantage Point Survey	2	01:00 starting at 18:15	Wind Speed and Direction:Gentle Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
07/11/2018	Vantage Point Survey	2	02:00 starting at 06:44	Wind Speed and Direction:Light Air, NE; Visibility: No Visibility; Cloud Height: <150m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None ; Snow: None		J.Kennedy

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
08/11/2018	Vantage Point Survey	2	04:00 starting at 08:44	Wind Speed and Direction: Fresh Breeze, SE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: <10 Rain: None; Frost: None; Snow: None		J.Kennedy
11/12/2018	Vantage Point Survey	2	06:00 starting at 07:40	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 100 Rain: Drizzle Mist; Frost: None; Snow: None		JK
01/02/2019	Vantage Point Survey	2	06:30 starting at 11:30	Wind Speed and Direction: Light Air, NE; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None; Snow: Ground	JANUARY SURVEY	JK
12/02/2019	Vantage Point Survey	2	02:00 starting at 12:07	Wind Speed and Direction: Strong Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: None	A fresh to strong breeze on the survey site and therefore very quiet throughout the three hours.	L. Dark
12/02/2019	Vantage Point Survey	2	01:00 starting at 14:07	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 2 Rain: None; Frost: None; Snow: None	A fresh to strong breeze on the survey site and therefore very quiet throughout the three hours.	L. Dark
18/02/2019	Vantage Point Survey	2	02:00 starting at 15:46	Wind Speed and Direction: Fresh Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: None; Frost: None; Snow: None	A cool, fresh breeze on site and quite quiet again, with only a few Passerine's in flight, or song.	L. Dark
18/02/2019	Vantage Point Survey	2	01:00 starting at 17:46	Wind Speed and Direction: Moderate Breeze, SW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None; Snow: None	A cool, fresh breeze on site and quite quiet again, with only a few Passerine's in flight, or song.	L. Dark

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
11/03/2019	Vantage Point Survey	2	03:00 starting at 07:00	Wind Speed and Direction:Light Breeze, SW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: None; Frost: None ; Snow: None	No sightings	RW
11/03/2019	Vantage Point Survey	2	03:00 starting at 10:30	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 100 Rain: Light Showers; Frost: None ; Snow: None	Light rain in 3rd hour. No sightings	RW
02/04/2019	Vantage Point Survey	2	01:00 starting at 14:40	Wind Speed and Direction:Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: All Day	Very cold day, with sub-zero temperatures and regular heavy snow showers. Few birds seen in flight throughout the survey.	L. Dark
02/04/2019	Vantage Point Survey	2	02:00 starting at 15:40	Wind Speed and Direction:Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: All Day	Very cold day, with sub-zero temperatures and regular heavy snow showers. Few birds seen in flight throughout the survey.	L. Dark
02/04/2019	Vantage Point Survey	2	03:00 starting at 18:10	Wind Speed and Direction:Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 3 Rain: Heavy Showers; Frost: None ; Snow: All Day	Very cold day, with sub-zero temperatures and regular heavy snow showers. Few birds seen in flight throughout the survey.	L. Dark
17/05/2019	Vantage Point Survey	2	01:00 starting at 04:30	Wind Speed and Direction:Light Air, S ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	2	01:00 starting at 05:30	Wind Speed and Direction:Light Air, S ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 0-33 Rain: None; Frost: None ; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
17/05/2019	Vantage Point Survey	2	01:00 starting at 06:30	Wind Speed and Direction:Light Air, S ; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	2	01:00 starting at 08:00	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	2	01:00 starting at 09:00	Wind Speed and Direction:Light Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
17/05/2019	Vantage Point Survey	2	01:00 starting at 10:00	Wind Speed and Direction:Gentle Breeze, S; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD
12/06/2019	Vantage Point Survey	2	02:00 starting at 14:00	Wind Speed and Direction:Moderate Breeze, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		PW
12/06/2019	Vantage Point Survey	2	01:12 starting at 16:00	Wind Speed and Direction:Gentle Breeze, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 33-66 Rain: None; Frost: None ; Snow: None	14:50-15:15, Car arrived up lane and 2 men and a dog began working some turf between VP2 and the site, within the 500m buffer.	PW
12/06/2019	Vantage Point Survey	2	01:00 starting at 17:44	Wind Speed and Direction:Gentle Breeze, N; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None	18:25, Van comes up track behind VP 2 to work turf.	PW

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
12/06/2019	Vantage Point Survey	2	01:00 starting at 18:44	Wind Speed and Direction: Moderate Breeze, N; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None; Snow: None	19:00, Van leaves and another man comes up in front of VP2 on quad to work turf. 19:09 man on quad leaves turf.	PW
12/06/2019	Vantage Point Survey	2	00:48 starting at 19:44	Wind Speed and Direction: Moderate Breeze, N; Visibility: Good (>2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: None; Frost: None; Snow: None	20:15, a couple people walk up track toward VP2 and then turn back around.	PW
10/07/2019	Vantage Point Survey	2	06:30 starting at 13:00	Wind Speed and Direction: Light Breeze, SW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 60-100 Rain: Heavy Showers; Frost: None; Snow: None		
03/09/2019	Vantage Point Survey	2	01:00 starting at 05:45	Wind Speed and Direction: Fresh Breeze, NW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None; Snow: None		AOD
03/09/2019	Vantage Point Survey	2	01:00 starting at 06:45	Wind Speed and Direction: Fresh Breeze, NW; Visibility: Poor (<km); Cloud Height: <150m; Cloud Cover %: 66-100 Rain: Heavy Showers; Frost: None; Snow: None		AOD
03/09/2019	Vantage Point Survey	2	01:00 starting at 07:45	Wind Speed and Direction: Fresh Breeze, NW; Visibility: Moderate (1-2km); Cloud Height: 150-500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None; Snow: None		AOD
03/09/2019	Vantage Point Survey	2	01:00 starting at 09:15	Wind Speed and Direction: Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None; Snow: None		AOD

Date	Survey Method	VP	Survey Duration	Weather Conditions	Comments	Surveyor
03/09/2019	Vantage Point Survey	2	01:00 starting at 10:15	Wind Speed and Direction: Moderate Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: Drizzle Mist; Frost: None ; Snow: None		AOD
03/09/2019	Vantage Point Survey	2	01:00 starting at 11:15	Wind Speed and Direction: Fresh Breeze, NW; Visibility: Good (>2km); Cloud Height: >500m; Cloud Cover %: 66-100 Rain: None; Frost: None ; Snow: None		AOD





## APPENDIX 7-3

*RESULTS SUMMARY TABLES*

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## APPENDIX 7-3 (SUMMARY TABLES)

*Table 1-1 Vantage Point Survey Effort Summary*

Survey Season	Months	Minimum Effort per VP
2017/2018 Non-Breeding Season (4VPs)	Sep - Mar	42 hours/VP
2018 Breeding Season (4VPs)	Apr - Sep	36 hours/VP
2018/2019 Non-Breeding Season (4VPs)	Oct - Mar	36 hours/VP
2019 Breeding Season (4VPs)	Apr - Sep	36 hours/VP

Table 1-2 Monthly distribution of flight activity for target species during VP Surveys.

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Whooper Swan	2017	records														0
		bird-secs														0
	2018	records											2		1	3
		bird-secs											180		40	220
	2019	records			1											1
		bird-secs			20											20
Golden Plover	2017	records											1		3	4
		bird-secs											22		210	232
	2018	records		1									8	7	2	18
		bird-secs		35									1,305	1,545	296	3,181
	2019	records	3	2	1											6
		bird-secs	14	57	104											175
Hen Harrier	2017	records														0
		bird-secs														0
	2018	records				1		1		4					1	7
		bird-secs				15		10		280					25	330
	2019	records								1						1
		bird-secs								25						25
Merlin	2017	records														0
		bird-secs														0
	2018	records										1				1
		bird-secs										35				35
	2019	records														0
		bird-secs														0
Red Grouse	2017	records													1	1
		bird-secs													20	20
	2018	records					1									1



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
		bird-secs					15								15
	2019	records	1								2				3
		bird-secs	6								8				14
Woodcock	2017	records													0
		bird-secs													0
	2018	records													0
		bird-secs													0
	2019	records				1									1
		bird-secs				8									8
Curlew	2017	records													0
		bird-secs													0
	2018	records				1									1
		bird-secs				10									10
	2019	records													0
		bird-secs													0
Buzzard	2017	records										1			1
		bird-secs										47			47
	2018	records		1		3							1		5
		bird-secs		384		470							400		1,254
	2019	records			2			2							4
		bird-secs			229			20							249
Sparrowhawk	2017	records													0
		bird-secs													0
	2018	records								1		1			2
		bird-secs								10		40			50
	2019	records						1							1
		bird-secs						118							118

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	
Kestrel	2017	records														0
		bird-secs														0
	2018	records				1		9	2	1			1		14	
		bird-secs				130		1,193	301	225			300		2,149	
	2019	records			1				1		1				3	
		bird-secs			176				360		18				554	
Snipe	2017	records													1	1
		bird-secs													30	30
	2018	records									2	1			3	
		bird-secs									100	3			103	
	2019	records				2	2	3							7	
		bird-secs				1810	670	877							3,357	
Based on analysis of all flight activity data within focus area, including data from VPs 1, 3 & 4 and observations of flights below and above the collision risk height band. Survey period = September 2017 - September 2019 (Shaded Cells were months not surveyed). Records = No. of Observations. Bird-secs = Total Duration of Flight(s).																

Table 1-3 All observations within focus area at PCH for target species during vantage point watches

Species	Values	VP1	VP3	VP4	Totals
Whooper Swan	Observations (All Bands)	2	1	1	4
	Duration in PCH (25-175m, in Seconds)	5,768	0	400	6,168
Golden Plover	Observations (All Bands)	18	10	0	28
	Duration in PCH (25-175m, in Seconds)	194,626	93,726	0	288,352
Hen Harrier	Observations (All Bands)	4	3	1	8
	Duration in PCH (25-175m, in Seconds)	40	25	0	65
Merlin	Observations (All Bands)	0	1	0	1
	Duration in PCH (25-175m, in Seconds)	0	15	0	15
Red Grouse	Observations (All Bands)	3	2	0	5
	Duration in PCH (25-175m, in Seconds)	0	0	0	0
Woodcock	Observations (All Bands)	0	1	0	1
	Duration in PCH (25-175m, in Seconds)	0	0	0	0
Curlew	Observations (All Bands)	0	0	1	1
	Duration in PCH (25-175m, in Seconds)	0	0	0	0
Buzzard	Observations (All Bands)	3	4	3	10
	Duration in PCH (25-175m, in Seconds)	447	554	400	1,401
Sparrowhawk	Observations (All Bands)	1	0	2	3
	Duration in PCH (25-175m, in Seconds)	0	0	110	110
Kestrel	Observations (All Bands)	1	13	3	17
	Duration in PCH (25-175m, in Seconds)	0	604	104	708
Snipe	Observations (All Bands)	9	2	0	11
	Duration in PCH (25-175m, in Seconds)	983	190	0	1,173

Based on analysis of all flight data at PCH for each target species recorded between September 2017 and September 2019. Any non-flight observations were excluded from data analysis. PCH=(no. of birds x total duration in PCH). PCH (Potential Collision Height) is considered as the area between 25-175m as a worst-case scenario for swept height of the turbine blades.

Table 1-4 Monthly Distribution of Non-Target Species during Vantage Point Surveys

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Common Gull	2017	Present = X												
	2018	Present = X												
	2019	Present = X					X							
Grey Heron	2017	Present = X												
	2018	Present = X												
	2019	Present = X						X						
Kittiwake	2017	Present = X												
	2018	Present = X												
	2019	Present = X			X									
Lesser Black-backed Gull	2017	Present = X												
	2018	Present = X				X								
	2019	Present = X												
Mallard	2017	Present = X												
	2018	Present = X				X	X							
	2019	Present = X				X								
Blackbird	2017	Present = X												
	2018	Present = X	X		X	X	X			X		X	X	X
	2019	Present = X		X			X							
Blue Tit	2017	Present = X									X			X
	2018	Present = X			X								X	X
	2019	Present = X												
Bullfinch	2017	Present = X												X
	2018	Present = X												
	2019	Present = X												
Carrion Crow	2017	Present = X									X		X	
	2018	Present = X												
	2019	Present = X												



Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chaffinch	2017	Present = X									X			
	2018	Present = X		X			X					X	X	
	2019	Present = X				X				X				
Chiffchaff	2017	Present = X												
	2018	Present = X												
	2019	Present = X				X					X			
Coal Tit	2017	Present = X												X
	2018	Present = X	X							X	X	X	X	X
	2019	Present = X				X					X			
Collared Dove	2017	Present = X												
	2018	Present = X			X									
	2019	Present = X												
Crossbill	2017	Present = X										X		
	2018	Present = X		X	X									
	2019	Present = X				X								
Cuckoo	2017	Present = X												
	2018	Present = X				X	X							
	2019	Present = X				X	X	X	X					
Dunnock	2017	Present = X												
	2018	Present = X									X		X	X
	2019	Present = X		X		X				X				
Fieldfare	2017	Present = X												X
	2018	Present = X										X	X	
	2019	Present = X												
Goldcrest	2017	Present = X												
	2018	Present = X										X		
	2019	Present = X												

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Goldfinch	2017	Present = X												
	2018	Present = X									X			
	2019	Present = X									X			
Great Tit	2017	Present = X												
	2018	Present = X									X	X		
	2019	Present = X				X	X			X				
Grey Wagtail	2017	Present = X												
	2018	Present = X								X				
	2019	Present = X									X			
Hooded Crow	2017	Present = X										X	X	X
	2018	Present = X	X	X	X	X	X			X	X	X	X	X
	2019	Present = X	X	X		X	X		X		X			
Jay	2017	Present = X												X
	2018	Present = X	X							X				
	2019	Present = X		X					X		X			
Lesser Redpoll	2017	Present = X									X	X		X
	2018	Present = X								X	X			
	2019	Present = X		X		X	X	X	X					
Linnet	2017	Present = X									X		X	
	2018	Present = X		X	X									
	2019	Present = X				X								
Magpie	2017	Present = X												
	2018	Present = X		X										
	2019	Present = X				X	X							
Meadow Pipit	2017	Present = X									X	X	X	
	2018	Present = X	X	X	X	X	X			X	X		X	X
	2019	Present = X		X		X	X	X	X	X	X			

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mistle Thrush	2017	Present = X										X		
	2018	Present = X			X		X			X	X	X		X
	2019	Present = X		X		X	X	X		X	X			
Wheatear	2017	Present = X												
	2018	Present = X				X					X			
	2019	Present = X				X					X			
Pheasant	2017	Present = X												
	2018	Present = X				X	X			X	X			
	2019	Present = X						X						
Pied Wagtail	2017	Present = X												
	2018	Present = X									X			
	2019	Present = X												
Raven	2017	Present = X										X	X	X
	2018	Present = X	X	X	X	X	X			X	X	X	X	X
	2019	Present = X	X	X		X	X	X		X	X			
Redwing	2017	Present = X										X		
	2018	Present = X										X	X	
	2019	Present = X												
Reed Bunting	2017	Present = X												
	2018	Present = X			X						X			
	2019	Present = X									X			
Robin	2017	Present = X												X
	2018	Present = X	X	X	X	X	X				X	X	X	X
	2019	Present = X		X		X	X				X			
Siskin	2017	Present = X										X		
	2018	Present = X												
	2019	Present = X		X		X		X	X	X				

Species	Year	Standardised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Skylark	2017	Present = X												
	2018	Present = X				X	X				X			
	2019	Present = X				X	X				X			
Song Thrush	2017	Present = X									X			
	2018	Present = X			X	X								
	2019	Present = X		X		X	X							
Stonechat	2017	Present = X									X		X	
	2018	Present = X		X		X	X			X	X	X	X	X
	2019	Present = X				X	X	X	X		X			
Swallow	2017	Present = X												
	2018	Present = X				X	X			X	X			
	2019	Present = X							X		X			
Swift	2017	Present = X												
	2018	Present = X												
	2019	Present = X						X						
Whitethroat	2017	Present = X												
	2018	Present = X												
	2019	Present = X							X					
Willow Warbler	2017	Present = X												
	2018	Present = X					X							
	2019	Present = X				X								
Wood Pigeon	2017	Present = X												X
	2018	Present = X					X			X				
	2019	Present = X				X	X		X					
Wren	2017	Present = X									X		X	X
	2018	Present = X	X	X	X	X				X	X	X	X	
	2019	Present = X		X		X	X		X	X	X			

Based on analysis of all flight activity data within focus area, including data from VPs 1, 3 & 4. Survey period = September 2017 - September 2019 (Shaded Cells were months not surveyed).

Table 1-5 Monthly distribution of target species during Breeding Bird (Adapted Brown & Shephard) Surveys.

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Hen Harrier	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations			1		1
		No. of individuals			1		1
Merlin	2018	No. of observations		1			1
		No. of individuals		1			1
	2019	No. of observations					0
		No. of individuals					0
Red Grouse	2018	No. of observations				1	1
		No. of individuals				1	1
	2019	No. of observations			1		1
		No. of individuals			1		1
Buzzard	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations	1		1		2
		No. of individuals	1		1		2
Sparrowhawk	2018	No. of observations					0
		No. of individuals					0
	2019	No. of observations	1		1		2
		No. of individuals	1		1		2

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Kestrel	2018	No. of observations		1		1	2
		No. of individuals		1		1	2
	2019	No. of observations	1			4	5
		No. of individuals	1			4	5
Snipe	2018	No. of observations	3			2	5
		No. of individuals	4			2	6
	2019	No. of observations		2	1	1	4
		No. of individuals		2	1	1	4

Table 1-6 Monthly Distribution of Non-Target Species during Breeding Bird Surveys

Species	Year	Standardised	Apr	May	Jun	Jul
Blackbird	2018	Present = X	X	X		
	2019	Present = X				X
Blue Tit	2018	Present = X	X			
	2019	Present = X				X
Bullfinch	2018	Present = X				
	2019	Present = X				X
Chaffinch	2018	Present = X	X	X	X	
	2019	Present = X				X
Chiffchaff	2018	Present = X	X			
	2019	Present = X				
Coal Tit	2018	Present = X	X	X	X	
	2019	Present = X				
Crossbill	2018	Present = X	X			
	2019	Present = X				
Cuckoo	2018	Present = X	X	X	X	
	2019	Present = X				
Dunnock	2018	Present = X	X	X	X	
	2019	Present = X				X
Goldcrest	2018	Present = X	X		X	
	2019	Present = X				X
Great Black-backed Gull	2018	Present = X			X	
	2019	Present = X				
Grey Heron	2018	Present = X	X			
	2019	Present = X		X		

Species	Year	Standardised	Apr	May	Jun	Jul
Grey Wagtail	2018	Present = X			X	
	2019	Present = X			X	
Hooded Crow	2018	Present = X	X	X	X	
	2019	Present = X				X
House Martin	2018	Present = X	X			
	2019	Present = X				
Lesser Black-backed Gull	2018	Present = X				
	2019	Present = X			X	
Lesser Redpoll	2018	Present = X		X	X	
	2019	Present = X				X
Linnet	2018	Present = X	X	X		
	2019	Present = X				
Mallard	2018	Present = X	X	X		
	2019	Present = X	X			
Marsh Tit	2018	Present = X	X	X	X	
	2019	Present = X				
Meadow Pipit	2018	Present = X	X	X		
	2019	Present = X			X	X
Raven	2018	Present = X	X			
	2019	Present = X				X
Reed Bunting	2018	Present = X	X	X	X	
	2019	Present = X				
Robin	2018	Present = X	X	X	X	
	2019	Present = X				



Species	Year	Standardised	Apr	May	Jun	Jul
Siskin	2018	Present = X	X	X	X	
	2019	Present = X				X
Skylark	2018	Present = X	X		X	
	2019	Present = X				
Stonechat	2018	Present = X				
	2019	Present = X				X
Willow Warbler	2018	Present = X	X	X	X	
	2019	Present = X				X
Wood Pigeon	2018	Present = X	X			
	2019	Present = X				
Wren	2018	Present = X	X		X	
	2019	Present = X				X

Table 1-7 Monthly distribution of observations during Breeding Raptor Surveys

Species	Year	Standardised	Apr	May	Jun	Jul	Totals
Hen Harrier	2018	No. of observations		1			1
		No. of individuals		1			1
	2019	No. of observations				1	1
		No. of individuals				1	1
Peregrine	2018	No. of observations				1	1
		No. of individuals				1	1
	2019	No. of observations					0
		No. of individuals					0
Buzzard	2018	No. of observations	1	3			4
		No. of individuals	1	3			4
	2019	No. of observations	1	3	1		5
		No. of individuals	2	4	1		7
Sparrowhawk	2018	No. of observations	2	4		3	9
		No. of individuals	2	4		4	10
	2019	No. of observations		3	1		4
		No. of individuals		3	1		4
Kestrel	2018	No. of observations	3	3	2	3	11
		No. of individuals	3	3	2	3	11
	2019	No. of observations			1	1	2
		No. of individuals			1	1	2

Table 1-8 Monthly distribution for target species during Winter Transect Surveys

Species	Year	Standardised	Jan	Mar	Oct	Dec	Totals
Golden Plover	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations			1		1
		No. of individuals			40		40
	2019	No. of observations	1				1
		No. of individuals	30				30
Kestrel	2017	No. of observations					0
		No. of individuals					0
	2018	No. of observations			1		1
		No. of individuals			1		1
	2019	No. of observations					0
		No. of individuals					0

Table 1-9 Monthly Distribution of Non-Target Species during Winter Transect Surveys

Species	Year	Standardised	Jan	Mar	Oct	Dec
Blackbird	2017	Present = X			X	
	2018	Present = X		X		
	2019	Present = X		X		
Blue Tit	2017	Present = X			X	X
	2018	Present = X	X	X		X
	2019	Present = X	X	X		
Bullfinch	2017	Present = X				X
	2018	Present = X	X			
	2019	Present = X				
Chaffinch	2017	Present = X				
	2018	Present = X		X		
	2019	Present = X		X		
Coal Tit	2017	Present = X			X	X
	2018	Present = X	X	X		X
	2019	Present = X		X		
Crossbill	2017	Present = X			X	X
	2018	Present = X	X	X		
	2019	Present = X				
Dunnock	2017	Present = X			X	X
	2018	Present = X		X		
	2019	Present = X				

Species	Year	Standardised	Jan	Mar	Oct	Dec
Fieldfare	2017	Present = X			X	
	2018	Present = X				
	2019	Present = X				
Goldcrest	2017	Present = X				
	2018	Present = X				
	2019	Present = X	X	X		
Goldfinch	2017	Present = X				
	2018	Present = X				X
	2019	Present = X	X			
Great Tit	2017	Present = X			X	
	2018	Present = X	X			
	2019	Present = X	X	X		
Hooded Crow	2017	Present = X				X
	2018	Present = X	X	X		X
	2019	Present = X				
Jay	2017	Present = X				X
	2018	Present = X	X			
	2019	Present = X				
Lesser Redpoll	2017	Present = X				X
	2018	Present = X				
	2019	Present = X	X	X		

Species	Year	Standardised	Jan	Mar	Oct	Dec
Linnet	2017	Present = X				
	2018	Present = X	X	X		X
	2019	Present = X				
Long-tailed Tit	2017	Present = X			X	X
	2018	Present = X	X			
	2019	Present = X				
Marsh Tit	2017	Present = X				
	2018	Present = X	X	X		
	2019	Present = X				
Meadow Pipit	2017	Present = X			X	X
	2018	Present = X	X	X		X
	2019	Present = X		X		
Raven	2017	Present = X			X	X
	2018	Present = X		X		X
	2019	Present = X	X			
Redwing	2017	Present = X			X	
	2018	Present = X				
	2019	Present = X				
Reed Bunting	2017	Present = X				X
	2018	Present = X				
	2019	Present = X				

Species	Year	Standardised	Jan	Mar	Oct	Dec
Robin	2017	Present = X			X	X
	2018	Present = X	X	X		
	2019	Present = X	X	X		
Siskin	2017	Present = X			X	
	2018	Present = X				
	2019	Present = X				
Treetreeper	2017	Present = X				
	2018	Present = X				X
	2019	Present = X	X			
Wren	2017	Present = X			X	X
	2018	Present = X	X	X		X
	2019	Present = X	X	X		



## APPENDIX 7-4

*BIRD SURVEY DATA*



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1. **APPENDIX 7-4 (SURVEY DATA)**

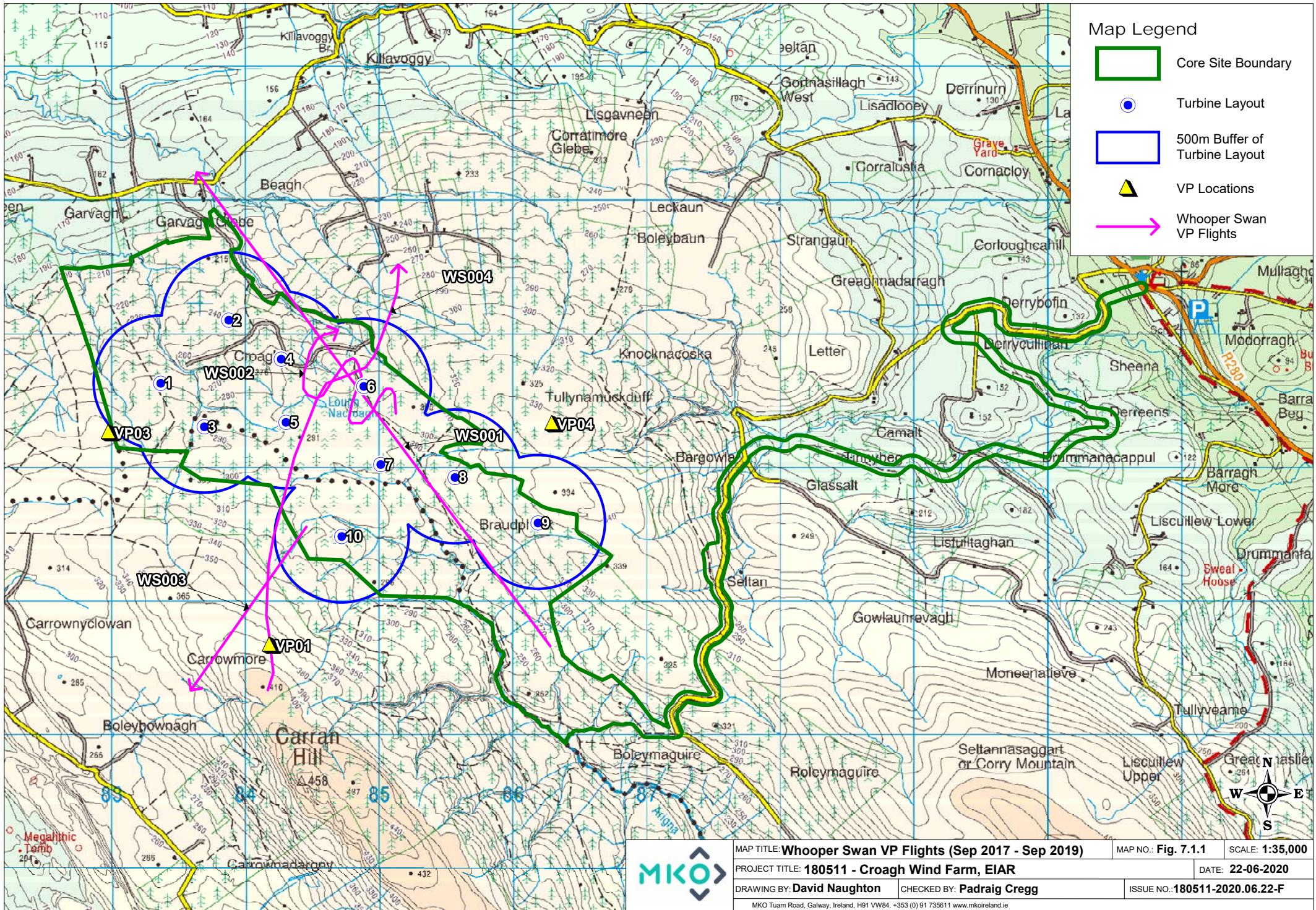
Table 1-1 Whooper Swan Vantage Point Survey Data

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
WS001	18/10/2018	4	Whooper Swan	4	18:31:00	100	80	20			100		WD4, (Conifer plantation) PB2, (Upland blanket bog) Migrating	Calling	AOD
WS002	26/10/2018	3	Whooper Swan	10	15:55:00	80	40	40				80	WD4, (Conifer plantation) PB2, (Upland blanket bog) Migrating flock calling		AOD
WS003	03/12/2018	1	Whooper Swan	4	11:40:00	40	6	34		13	27		WD4, (Conifer plantation) PB2, (Upland blanket bog) Travelling		JK
WS004	26/03/2019	1	Whooper Swan	20	10:41:00	283			0	0	283	0	PB2, (Upland blanket bog) WD4, (Conifer plantation) Migrating flock passed by VP at 30m, increasing in height with the change in ground contours over forestry before increasing in altitude, to 100m approx.	migrating flock	RW

Table 1-2 Whooper Swan Incidental Observation during Hen Harrier Roost Survey

Ref. No.	Date	Survey Type	Location	Species	No. of Individuals	Notes	Surveyor
WS001	26/10/2018	Hen Harrier Roost Survey	HHVP1	Whooper Swan	23	Flock of 23 flew over site migrating north to south band 3 100s	AOD





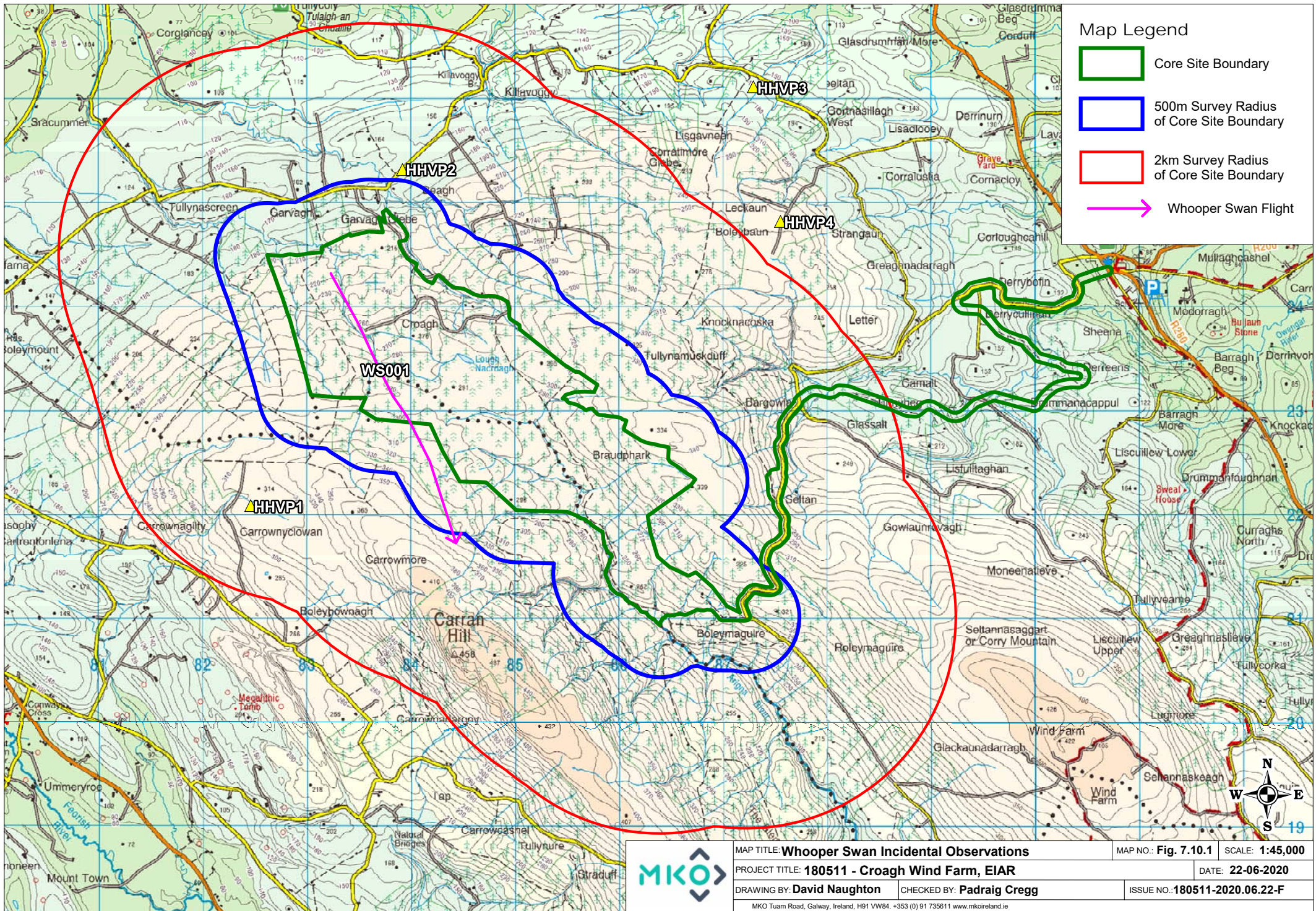
### Map Legend

- Core Site Boundary
- Turbine Layout
- 500m Buffer of Turbine Layout
- ▲ VP Locations
- Whooper Swan VP Flights



MAP TITLE: <b>Whooper Swan VP Flights (Sep 2017 - Sep 2019)</b>		MAP NO.: <b>Fig. 7.1.1</b>	SCALE: <b>1:35,000</b>
PROJECT TITLE: <b>180511 - Croagh Wind Farm, EIAR</b>			DATE: <b>22-06-2020</b>
DRAWING BY: <b>David Naughton</b>		CHECKED BY: <b>Padraig Cregg</b>	
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- Map Legend**
- Core Site Boundary
  - 500m Survey Radius of Core Site Boundary
  - 2km Survey Radius of Core Site Boundary
  - ➔ Whooper Swan Flight

	MAP TITLE: <b>Whooper Swan Incidental Observations</b>		MAP NO.: <b>Fig. 7.10.1</b>	SCALE: <b>1:45,000</b>
	PROJECT TITLE: <b>180511 - Croagh Wind Farm, EIAR</b>			DATE: <b>22-06-2020</b>
DRAWING BY: <b>David Naughton</b>		CHECKED BY: <b>Padraig Cregg</b>		ISSUE NO.: <b>180511-2020.06.22-F</b>
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Table 1-3 Golden Plover Vantage Point Survey Flights

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP001	25/10/2017	1	Golden Plover	34	18:06:00	22				22				F; u/w	CP
GP002	20/12/2017	1	Golden Plover	5	09:15:00	20			20				PB2, (Upland blanket bog) flushed from heath		DM
GP003	20/12/2017	1	Golden Plover	37	13:30:00	170					70	100	PB2, (Upland blanket bog) WD4, (Conifer plantation) circling and travelling		DM
GP004	20/12/2017	1	Golden Plover	5	13:40:00	20			20				PB2, (Upland blanket bog) flushed and re-landed on heath		DM
GP005	24/02/2018	1	Golden Plover	16	12:51:00	35			3	11	21		PB2, (Upland blanket bog) PB4, (Cutover bog) Flew W around VP location from 5-30m	Non-breeding flock	RW
GP006	23/10/2018	1	Golden Plover	33	13:05:00	45		45		45			GS4, (Wet grassland) Calling flock near VP		AOD
GP007	23/10/2018	1	Golden Plover	110	13:39:00	200	150	50		100	100		WD4, (Conifer plantation) Flying flock		AOD
GP008	23/10/2018	1	Golden Plover	190	15:35:00	40	40			30	160		WD4, (Conifer plantation) Flying Flock		AOD
GP009	23/10/2018	1	Golden Plover	5	16:39:00	5		5	5				WD4, (Conifer plantation) Flock near VP calling		AOD
GP0010	23/10/2018	1	Golden Plover	270	17:26:00	600	450	150		50	350	200	WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) Largest flock seen flying		AOD
GP0011	23/10/2018	1	Golden Plover	150	17:39:00	350	250	100			350		WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) Flying flock		AOD
GP0012	23/10/2018	1	Golden Plover	12	17:39:00	30		30		30			WD4, (Conifer plantation) PB2, (Upland blanket bog) GS4, (Wet grassland) Flying flock		AOD

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP0013	26/10/2018	3	Golden Plover	109	16:09:00	35	35	0				35	WD4, (Conifer plantation) PB2, (Upland blanket bog) Flying flock		AOD
GP0015	30/11/2018	3	Golden Plover	2	09:33:00	22							PB4, (Cutover bog) Pair flying low over heather		JK
GP0016	30/11/2018	3	Golden Plover	9	09:51:00	120					120		PB4, (Cutover bog) WD4, (Conifer plantation) Small flock crossing site		JK
GP0017	30/11/2018	3	Golden Plover	250	09:51:00	780					180	600	PB4, (Cutover bog) WD4, (Conifer plantation) Large flock circling over site	Large flock circling over site in murmeration for extended time, before heading SE.	JK
GP0018	30/11/2018	3	Golden Plover	90	10:04:00	480				60	360	60	PB4, (Cutover bog) WD4, (Conifer plantation)		JK
GP0019	30/11/2018	3	Golden Plover	50	10:45:00	56					56		PB4, (Cutover bog) WD4, (Conifer plantation)		JK
GP0020	30/11/2018	3	Golden Plover	95	10:52:00	67					58	9	PB4, (Cutover bog) WD4, (Conifer plantation)		JK
GP0021	30/11/2018	3	Golden Plover	120	11:10:00	20					20		PB4, (Cutover bog) WD4, (Conifer plantation)		JK
GP0022	03/12/2018	1	Golden Plover	15	07:51:00	26	26		26				PB2, (Upland blanket bog) Flushed from heather		JK
GP0023	05/12/2018	3	Golden Plover	15	09:46:00	282	270	12	18	4	136	124	WD4, (Conifer plantation) PB4, (Cutover bog) Circling over site		JK
GP0024	15/01/2019	1	Golden Plover	2	13:15:00	3	3		3				PB4, (Cutover bog) Flying low over cutover		JK
GP0025	15/01/2019	1	Golden Plover	25	13:57:00	8	8		8				PB4, (Cutover bog) Flying low over cutover		JK
GP0026	15/01/2019	1	Golden Plover	2	16:53:00	3	3		3				PB4, (Cutover bog) Flying low over cutover		JK

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
GP0027	07/02/2019	1	Golden Plover	110	14:28:00	35				2	30	3	PB4, (Cutover bog) Travelling		JK
GP0028	07/02/2019	1	Golden Plover	120	14:29:00	22						22	WD4, (Conifer plantation) PB4, (Cutover bog) Travelling		JK
GP0029	14/03/2019	3	Golden Plover	24	09:41:00	104			0	0	104	0	PB2, (Upland blanket bog) Flew in from the W at 60-70m, circled several times then moved back W beyond VP	Non-breeding flock	RW

Table 1-4 Golden Plover Vantage Point Survey Non-Visual Observations

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
GP001	10/11/2017	1	Golden Plover	1	12:26:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	Golden Plover calling from the north west, 100-150m away. Approximate Grid Ref: G 8405 2175	LD
GP002	10/11/2017	1	Golden Plover	1	12:34:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	Golden Plover calling on and off again from the same location above. A little longer this time 10-12 seconds.	LD
GP003	10/11/2017	1	Golden Plover	1	15:12:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	Golden Plover heard calling from the W/NW around 150=200m from the VP, in the same vicinity as the birds flushed yesterday (see Incidental Notes for Grid Reference).	LD
GP004	10/11/2017	1	Golden Plover	1	15:16:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	Two Golden Plover heard calling from the same area above, for around 16 seconds.	LD

Table 1-5 Golden Plover Winter Transect Survey Observations

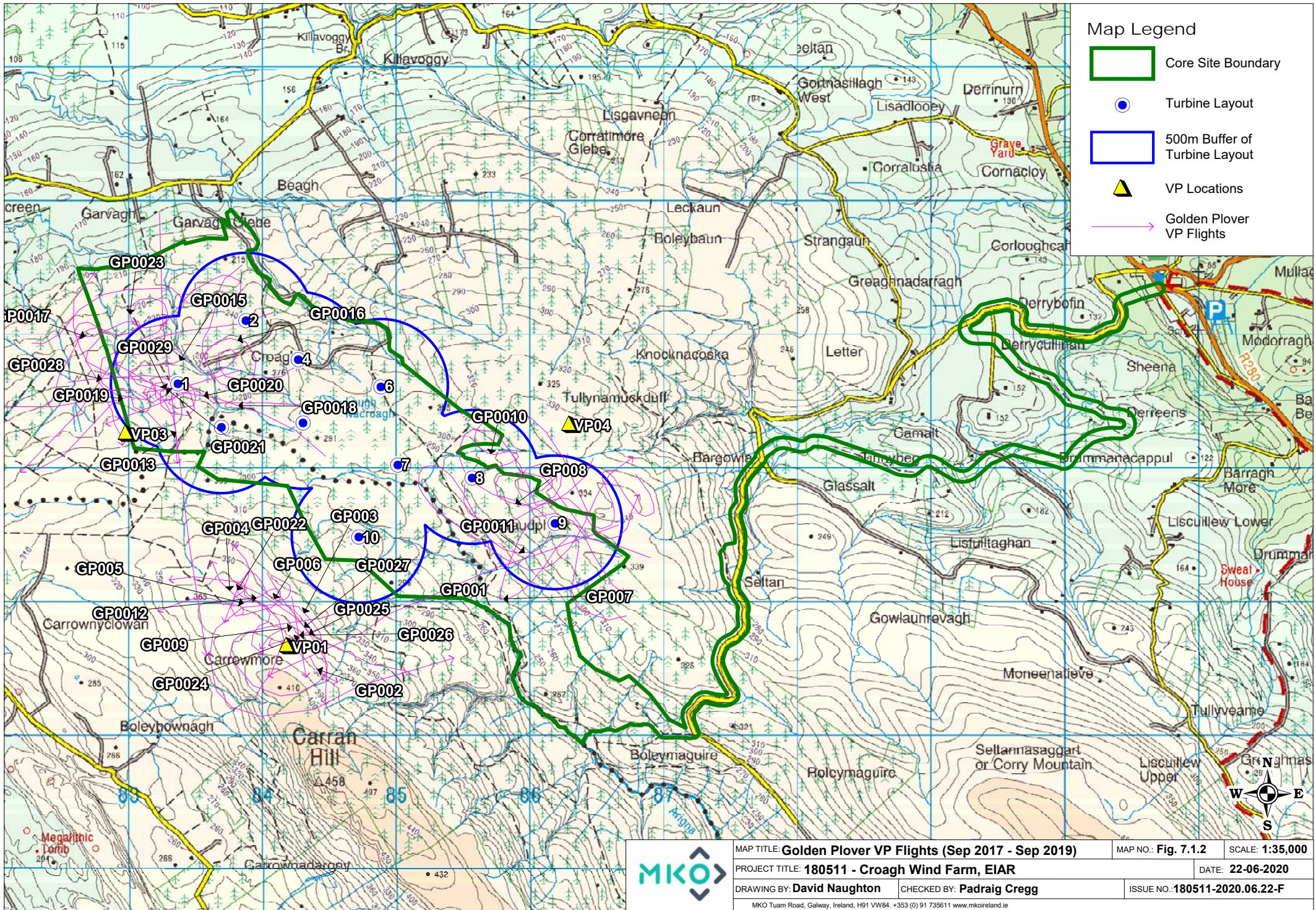
Ref No.	Date	Transect/ Quadrat/ Point No.	Species	No. of Birds	Time of observation	Habitat	Notes (Comment on behaviour and activity)	Surveyor
GP001	16/10/2018		Golden Plover	40	14:34:00	GS4, (Wet grassland) PB2, (Upland blanket bog)	Flying flock	AOD
GP002	08/01/2019		Golden Plover	30	12:12:00	WD4, (Conifer plantation)	Travelling in echelon	JK



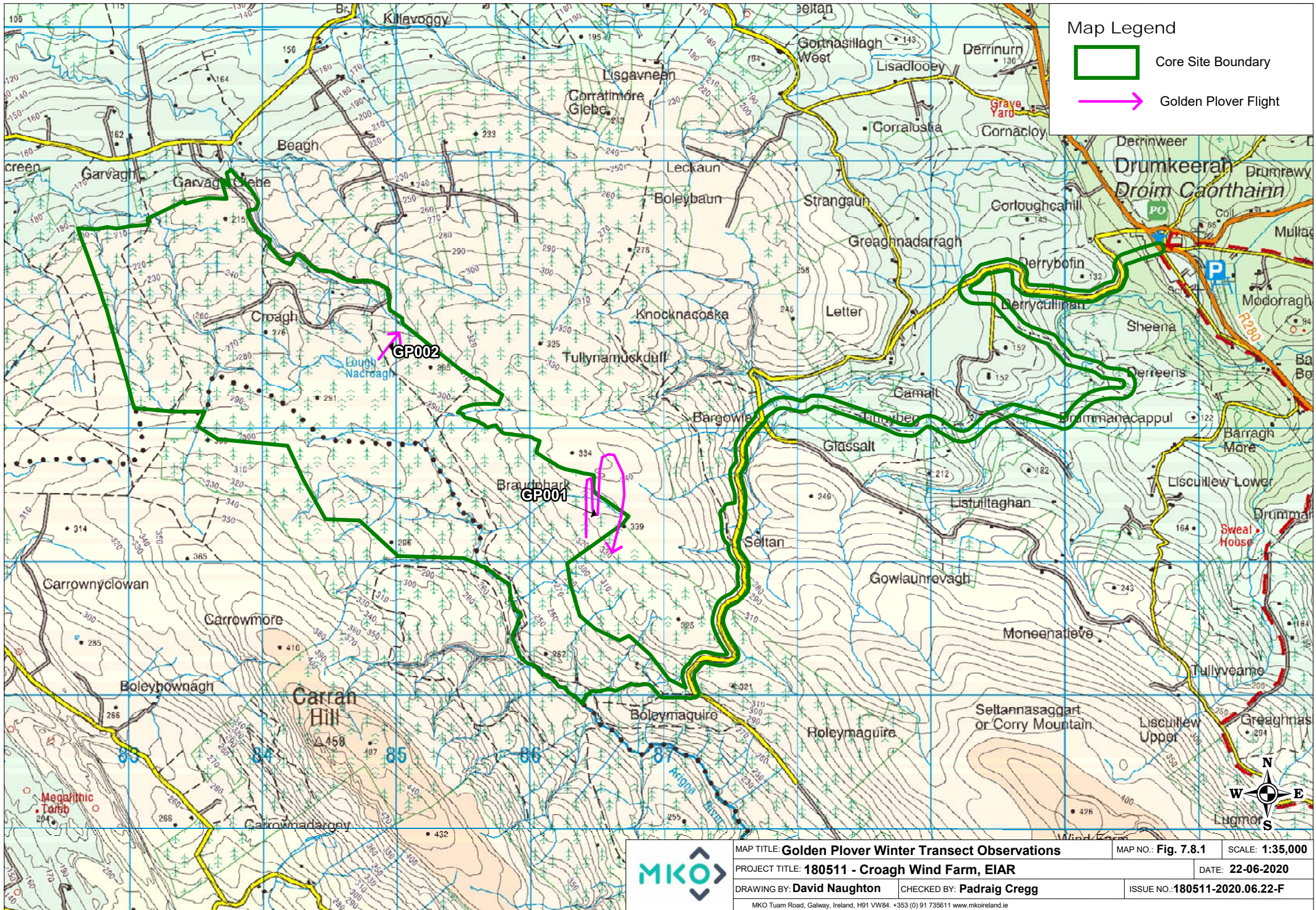
Table 1-6 Golden Plover Incidental Observations

Ref. No.	Date	Survey Type	Location	Species	No. of Individuals	Notes	Surveyor
GP003	17/05/2018	Breeding Raptor Survey	Carran Hill VP- A	Golden Plover	1	Possible breeding Golden Plover heard calling in dense heather and moorland grass. Approx. Grid Ref: G 8285 2205.	LD
GP004	13/03/2019	Red Grouse Survey		Golden Plover	26	flushed. 586652.863324922, 822681.874708627	JC
GP001	10/11/2017	Vantage Point Survey	VP1	Golden Plover	6	Golden Plover heard calling from the VP, but another six were flushed whilst walking out. Grid Ref: 8390 2175.	LD
GP002	25/01/2018	Vantage Point Survey	VP1	Golden Plover	50-60	Flushed a large flock of Golden Plover from the heather shortly after seeing the Snipe. Around 50-60 birds flew up, circled overhead before flying away. Grid Ref: 8382 2192	LD

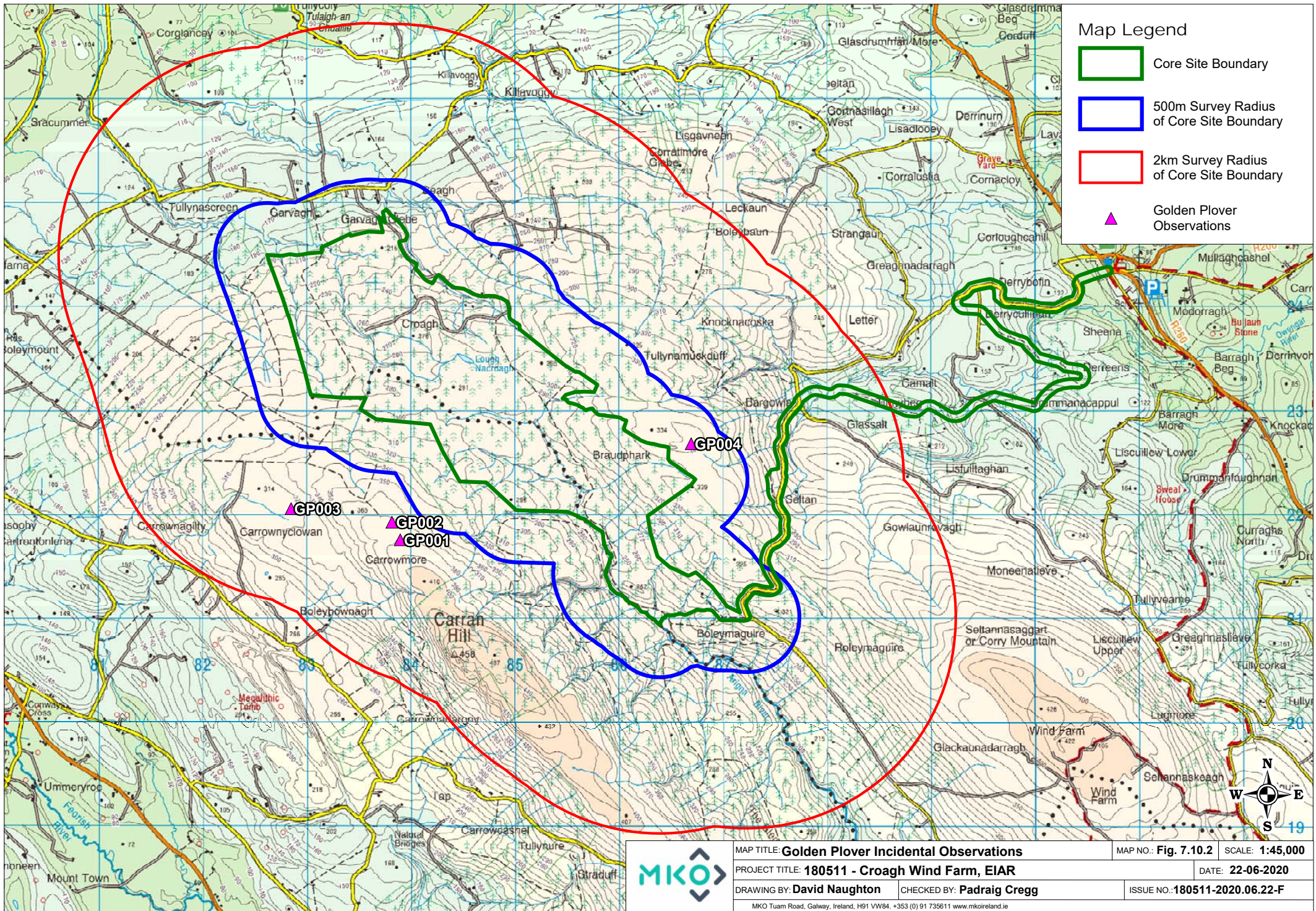












### Map Legend

- Core Site Boundary
- 500m Survey Radius of Core Site Boundary
- 2km Survey Radius of Core Site Boundary
- ▲ Golden Plover Observations

	MAP TITLE: <b>Golden Plover Incidental Observations</b>		MAP NO.: <b>Fig. 7.10.2</b>	SCALE: <b>1:45,000</b>
	PROJECT TITLE: <b>180511 - Croagh Wind Farm, EIAR</b>			DATE: <b>22-06-2020</b>
	DRAWING BY: <b>David Naughton</b>	CHECKED BY: <b>Padraig Cregg</b>	ISSUE NO.: <b>180511-2020.06.22-F</b>	
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Table 1-7 Hen Harrier Vantage Point Survey Observations

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
HH002	29/04/2018	4	Hen Harrier	1	10:11:00	15	15		10	5			WD4, (Conifer plantation) Male HH flies at buzzard. buzzard soars up	Buzzard soars south to north direction	SF
HH004	21/06/2018	3	Hen Harrier	1	12:39:00	10			10				PB2, (Upland blanket bog) PB4, (Cutover bog) Hunting over bog	Seen briefly hunting low over edge of secondary rotation	RW
HH008	27/08/2018	3	Hen Harrier	1	12:45:00	75	75			50	25		PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting female/juv		DM
HH005	28/08/2018	1	Hen Harrier	1	10:30:00	55		55		55			PB2, (Upland blanket bog) hunting female		DM
HH006	28/08/2018	1	Hen Harrier	1	12:10:00	60	60			20	40		PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting male		DM
HH007	28/08/2018	1	Hen Harrier	1	13:45:00	90		90		90			PB2, (Upland blanket bog) hunting female		DM
HH0010	05/12/2018	3	Hen Harrier	1	10:26:00	25	7	18	25				PB4, (Cutover bog) hunting over bog	Male	JK
HH0011	07/08/2019	1	Hen Harrier	1	19:30:00	25	25		5	20			PB4, (Cutover bog) Travelling; circling low, possibly to roost	Male	JK

Table 1-8 Hen Harrier Breeding Bird Survey Observation

Map Ref. No.	Date	Transect/Area	Species Name	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
HH001	25/06/2019		Hen Harrier	1				Adult male foraging. band2 100s west to east	AOD

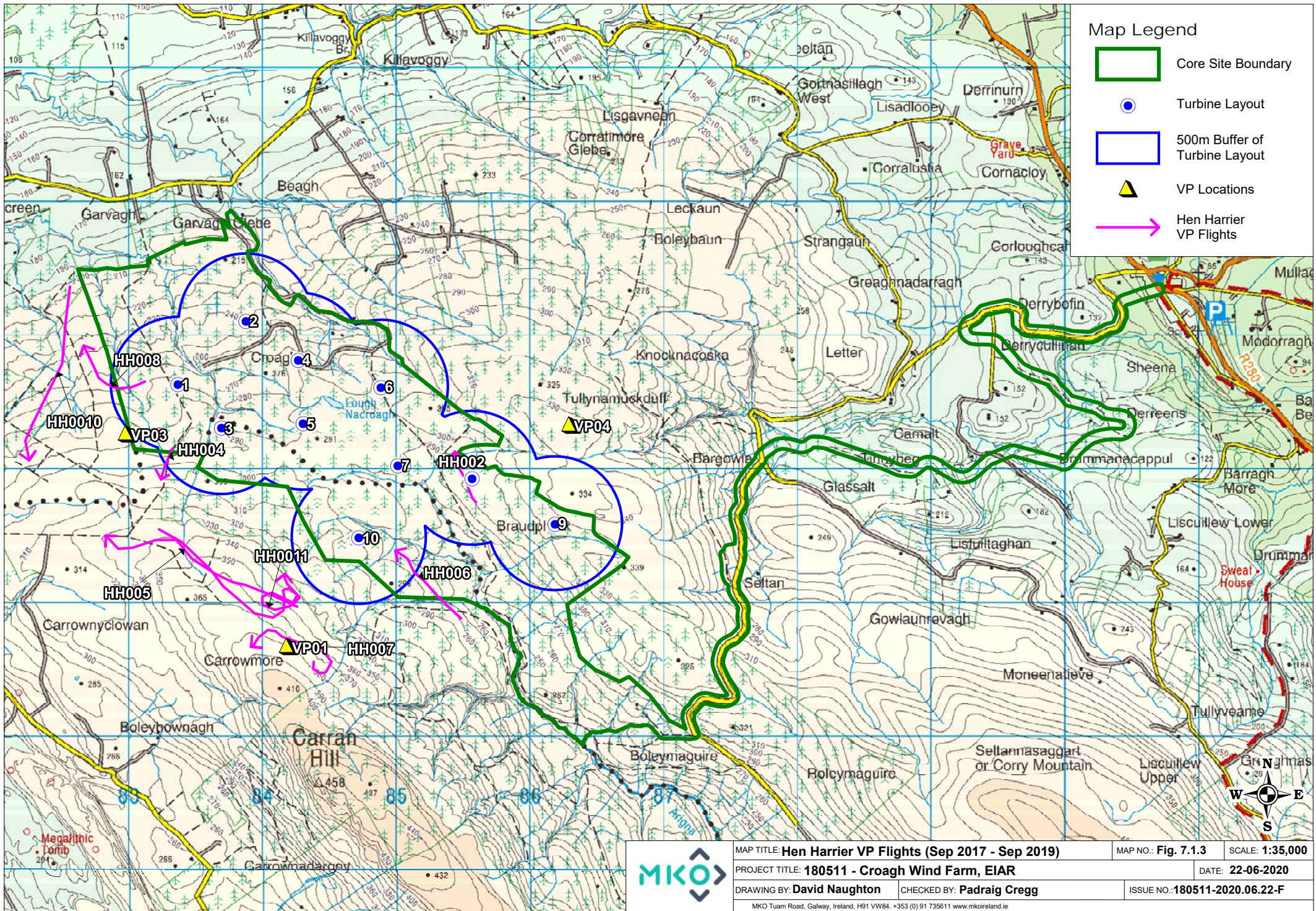
Table 1-9 Hen Harrier Breeding Raptor Survey Observations

Map Reference No.	Date	RVP	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
HH001	07/05/2018	VP-A	Hen Harrier	1	12:20:00	2	HH1, (Dry siliceous heath) GS4, (Wet grassland) Flying into dense grass and heather.	Very brief view of a possible male Hen Harrier from a transect walked at VP-A. Saw a light-coloured raptor size species 6-700m north-west of the track marked on the map, which landed in dense grass. Only saw it for a second or two with the naked eye, it looks like good foraging habitat, comprising a large area of open moorland, Molinia and heather.	LD
HH002	23/07/2019	7	Hen Harrier	1	11:35:00	240	GS2, (Dry meadows and grassy verges) Hunting	Male	JK

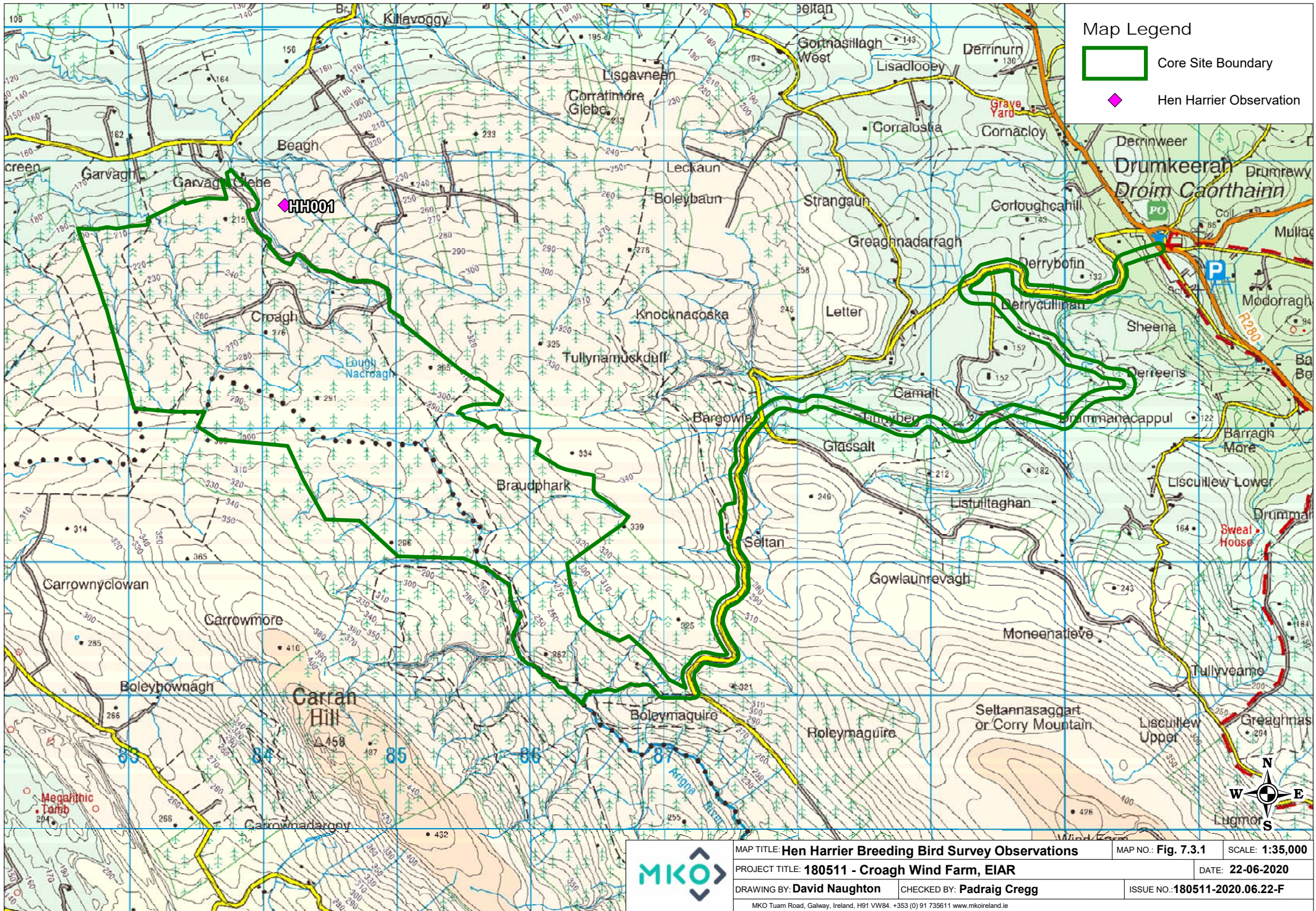
Table 1-10 Hen Harrier Roost Survey Observations

Map Ref. No.	Date	HHVP	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
HH001	25/03/2018	Site 1	Hen Harrier	1	18:23:00	8	HH1, (Dry siliceous heath) GS4, (Wet grassland) Male Hen Harrier flying low over heather moorland before landing to roost	Roost Identified	LD
HH002	26/10/2018	HHVP1	Hen Harrier	1	18:34:00	7	PB2, (Upland blanket bog) Adult male flying low band1		AOD

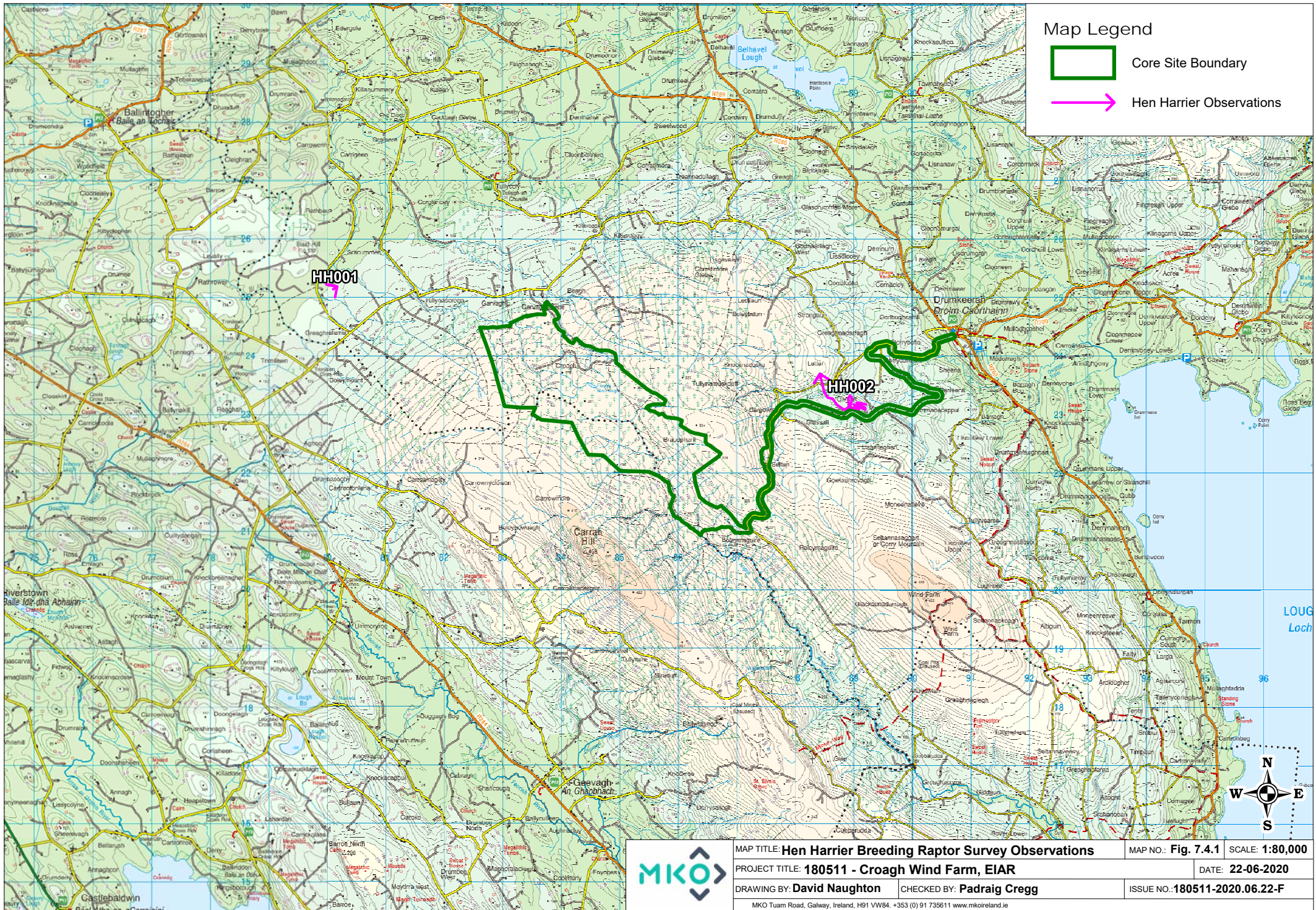














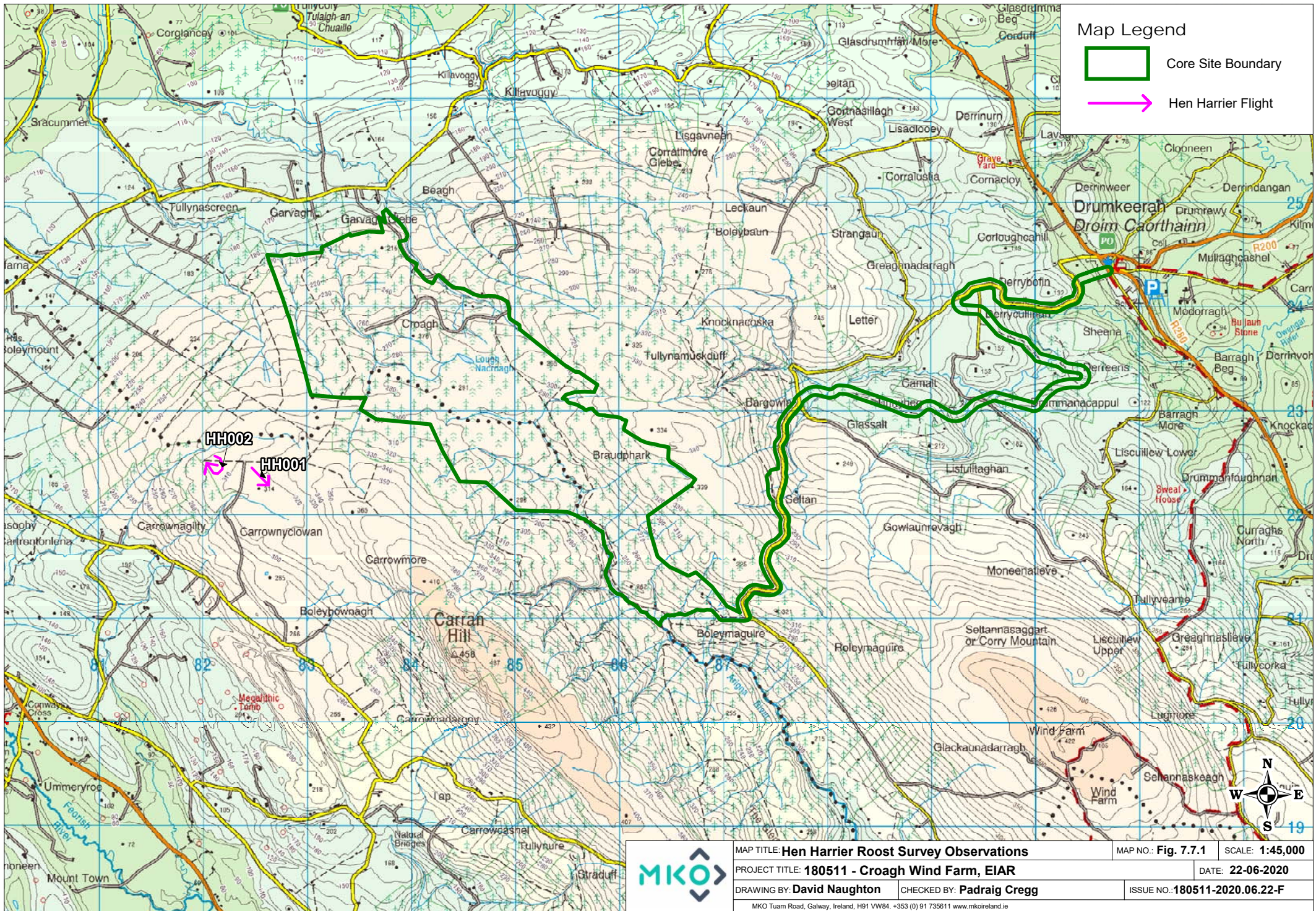
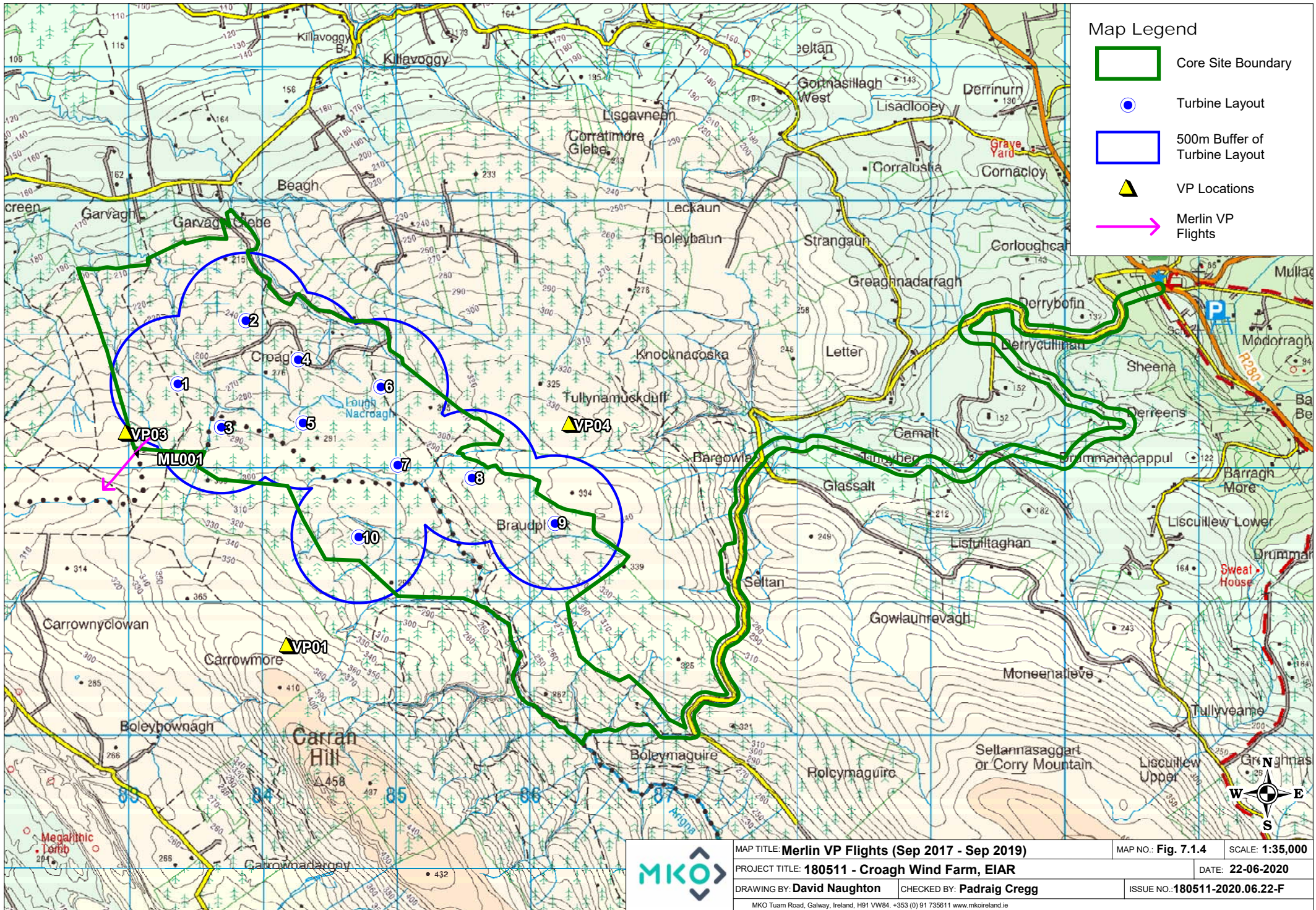




Table 1-11 Merlin Vantage Point Survey Observations

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Surveyor
ML001	17/09/2018	3	Merlin	1	08:00:00	35	20	15		20	15		PB2, (Upland blanket bog) WD4, (Conifer plantation) hunting	DM





### Map Legend

- Core Site Boundary
- Turbine Layout
- 500m Buffer of Turbine Layout
- ▲ VP Locations
- ➔ Merlin VP Flights

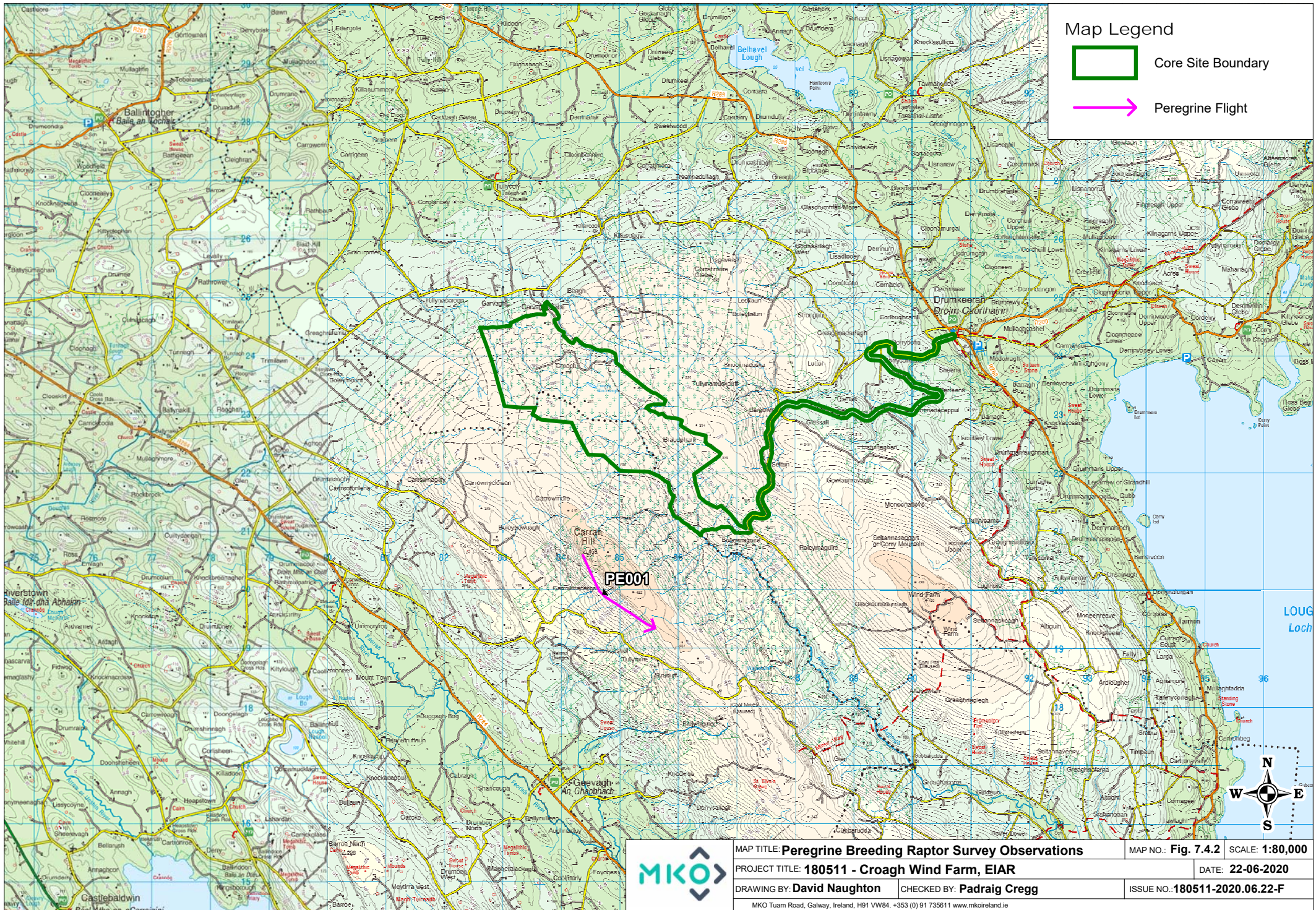
	MAP TITLE: <b>Merlin VP Flights (Sep 2017 - Sep 2019)</b>		MAP NO.: <b>Fig. 7.1.4</b>	SCALE: <b>1:35,000</b>	
	PROJECT TITLE: <b>180511 - Croagh Wind Farm, EIAR</b>			DATE: <b>22-06-2020</b>	
DRAWING BY: <b>David Naughton</b>		CHECKED BY: <b>Padraig Cregg</b>		ISSUE NO.: <b>180511-2020.06.22-F</b>	
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Table 1-12 Peregrine Breeding Raptor Survey Observation

Map Reference No.	Date	RVP	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
PE001	17/07/2018		Peregrine	1	12:36:00	20	WD4, (Conifer plantation) Flying over	Adult Female	ED





### Map Legend

-  Core Site Boundary
-  Peregrine Flight



MAP TITLE: <b>Peregrine Breeding Raptor Survey Observations</b>		MAP NO.: <b>Fig. 7.4.2</b>	SCALE: <b>1:80,000</b>
PROJECT TITLE: <b>180511 - Croagh Wind Farm, EIAR</b>		DATE: <b>22-06-2020</b>	
DRAWING BY: <b>David Naughton</b>	CHECKED BY: <b>Padraig Cregg</b>	ISSUE NO.: <b>180511-2020.06.22-F</b>	
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Table 1-13 Red Grouse Vantage Point Survey Flights

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Duration of flight (s)	Duration Within 500m Buffer of Site Boundary	Duration Outside	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 PCH (25-175m)	Band 4 (>175m)	Notes on habitat and activity	Comments	Surveyor
RG001	20/12/2017	1	Red Grouse	3	09:25:00	20			20				PB2, (Upland blanket bog) flushed from heath		DM
RG002	02/05/2018	1	Red Grouse	1	06:15:00	15			15				PB2, (Upland blanket bog), WD4 (Conifer Plantation)		SF
RG003	15/01/2019	1	Red Grouse	1	11:02:00	6	6		6				PB4, (Cutover bog) Flushed from cutover		JK
RG004	05/09/2019	3	Red Grouse	2	06:10:00	5	2	3					HH4, (Montane Heath)	2 adults flew north low	AOD
RG005	05/09/2019	3	Red Grouse	2	06:36:00	3	3						HH4, (Montane Heath)	2 birds flew north towards site low	AOD

Table 1-14 Red Grouse Vantage Point Surveys Non-Visual Observations

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
RG001	20/03/2018	3	Red Grouse	1	19:17:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	Red Grouse calling from the Calluna at dusk, around 100m north east of the VP.	LD
RG002	20/03/2018	3	Red Grouse	1	19:19:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) Calling	A separate Red Grouse started calling even closer, about 50-75m south of the VP.	LD
RG003	20/03/2018	3	Red Grouse	1	19:28:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) calling	A third bird then began calling, about 75-100m south-west of the Vantage Point. None of them seen.	LD
RG004	20/03/2018	3	Red Grouse	1	19:30:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) calling	Bird No. 2 started calling again.	LD
RG005	20/03/2018	3	Red Grouse	1	19:30:00	HH1, (Dry siliceous heath) GS4, (Wet grassland) calling	Answered by the calling Red Grouse (Bird No. 3).	LD
RG006	29/04/2018	4	Red Grouse	1	06:19:00	WD4, (Conifer plantation) Calling	Not Seen	SF
RG007	02/05/2018	1	Red Grouse	1	07:11:00	PB4, WD4 Calling		SF
RG008	02/05/2018	1	Red Grouse	1	11:09:00	PB2, (Upland blanket bog) Calling		SF

Map Ref. No.	Date	VP	Species	No. of Birds	Time of flight	Notes on habitat and activity	Comments	Surveyor
RG009	02/05/2018	1	Red Grouse	1	07:20:00			SF
RG0010	17/09/2018	3	Red Grouse	1			heard calling	DM
RG0011	18/09/2018	1	Red Grouse	2			heard calling	DM
RG0012	30/04/2019	1	Red Grouse	2	21:30:00	HH4, (Montane heath) PB2, (Upland blanket bog) 2 RG calling	2 RG calling	AOD
RG0013	14/05/2019	3	Red Grouse	1	05:27:00	HH4, (Montane heath) Calling Male Not Seen		AOD
RG0014	15/05/2019	1	Red Grouse	1	05:05:00	HH4, (Montane heath) Calling Male Not Seen		AOD
RG0015	17/05/2019	2	Red Grouse	1	04:48:00	HH4, (Montane heath) Calling Male Not Seen		AOD
RG0016	18/06/2019	1	Red Grouse	1	12:48:00	HH1, (Dry siliceous heath) RG calling, heard a call like a mallard but more nasal and in single notes.	When listened to on Collins bird guide app the call was confirmed to be RG.	PW
RG0017	18/06/2019	1	Red Grouse	1	13:19:00	HH1, (Dry siliceous heath) RG calling		PW
RG0018	18/06/2019	1	Red Grouse	1	14:57:00	HH1, (Dry siliceous heath) RG called once		PW
RG0019	18/06/2019	1	Red Grouse	1	15:16:00	HH1, (Dry siliceous heath) RG called 5 times, heard only.		PW
RG0020	18/06/2019	1	Red Grouse	1	15:19:00	HH1, (Dry siliceous heath) RG called twice, heard only.		PW
RG0021	18/06/2019	1	Red Grouse	1	15:24:00	HH1, (Dry siliceous heath) RG called 4 times, heard only.		PW
	04/09/2019	1	Red Grouse	2			Calling until light	AOD
	05/09/2019	3	Red Grouse	3			Calling until light	AOD

Table 1-15 Red Grouse Breeding Walkover Survey Observations

Map Ref. No.	Date	Transect	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
RG001	10/07/2018		Red Grouse	1	12:58:00		PB2, (Upland blanket bog) Flushed from bog	Adult male	RW



Map Ref. No.	Date	Transect	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
RG002	25/06/2019		Red Grouse	1				Male flew SE 4s B1	AOD

Table 1-16 Red Grouse Tape Lure Survey Observations

Map Ref. No.	Date	Transect	Species	No. of Birds	Time of flight	Duration of flight (s)	Notes on habitat and activity	Comments	Surveyor
RG001	24/03/2018	A	Red Grouse	1	15:42:00	12	HH3, (Wet heath) GS4, (Wet grassland) GS3, (Dry-humid acid grassland) Adult flew parallel to transect line calling in flight		CP
RG002	11/03/2019		Red Grouse	1	11:26:00		PB2, (Upland blanket bog) Calling	Adult male	JC

Table 1-17 Red Grouse Winter Transect Survey Observation

Ref No.	Date	Transect/ Quadrat/ Point No.	Species	No. of Birds	Time of observation	Habitat	Notes (Comment on behaviour and activity)	Surveyor
RG001	16/10/2018		Red Grouse	1	16:21:00	PB2, (Upland blanket bog)	Flushed bird	AOD

Table 1-18 Red Grouse Incidental Observations

Ref. No.	Date	Survey Type	Location	Species	No. of Individuals	Notes	Surveyor
RG001	23/10/2017	Hen Harrier Roost Survey	Near HH01	Red Grouse	3	Flushed at about G/82415/21820, OOS.	CP
	26/10/2018	Hen Harrier Roost Survey	HHVP1	Red Grouse	1	Calling at HHVP1	AOD
RG002	20/11/2017	Vantage Point Survey	VP3	Red Grouse	2	Flushed a pair of Red Grouse walking in, around 150m west of the VP. Approximate Grid Ref: G 82850 23300. Both birds calling.	LD
	18/10/2018	Vantage Point Survey	VP4	Red Grouse	1	Calling at dusk near VP4	AOD
	23/10/2018	Vantage Point Survey	VP1	Red Grouse	1	Calling then flushed near VP	AOD
	01/11/2018	Vantage Point Survey	VP3	Red Grouse	3	At least 3 birds calling around VP after 17:30	AOD

Ref. No.	Date	Survey Type	Location	Species	No. of Individuals	Notes	Surveyor
RG007	05/06/2019	Vantage Point Survey	Carran Hill IG 833 236	Red Grouse	1	Possible Red Grouse recorded on way in to VP3 flushed from grass trackway across heather moorland.	PW
RG001	07/05/2019	Breeding Raptor Survey	RVP10	Red Grouse	1	Red Grouse calling from the Calluna and area of grassland.	LD
RG002	09/05/2019	Breeding Raptor Survey	RVP3	Red Grouse	1	Red Grouse heard calling from the Calluna.	LD
RG003	09/05/2019	Breeding Raptor Survey	RVP3	Red Grouse	1	Red Grouse heard calling from the Calluna.	LD