

Winter Bird Survey Report 2020-2021

Lissinagroagh Wind Farm,
Co. Leitrim





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1. **SUMMARY**

Ornithological surveys have been undertaken at the site of Lissinagroagh Wind Farm, Co. Leitrim, since September 2017. This report outlines the findings from surveys completed during the 2020-2021 winter season. The following surveys were undertaken:

- > Vantage Point Surveys
- > Winter Walkover Surveys
- > Hen Harrier Roost Surveys

The key observation during the survey period was related to a possible red grouse breeding territory identified within 500m of the site.

2. INTRODUCTION

MKO were appointed to carry out bird surveys at Lissinagroagh Wind Farm, Co. Leitrim for the 2020-2021 winter season. This report describes the ornithological survey methods employed and survey data collected at Lissinagroagh Wind Farm, Co. Leitrim for the period from October 2020 to March 2021 inclusive.

2.1 Site Description

The site is located 3km northeast of Manerhamilton (Grid Ref: G 90949 42157). The dominant habitat onsite is conifer plantation and upland blanket bog with accompanying smaller areas of mixed conifer woodland and heath. The wider surroundings are predominantly improved agricultural grassland and wet grassland.

2.2 Details of the Proposed Development

The total area of the development is approximately 152 hectares. Figure 1 shows the wind farm site boundary.

2.3 Purpose of this Report

This report describes the ornithological survey methods employed and survey data collected at Lissinagroagh Wind Farm for the period October 2020 to March 2021 inclusive. This report aims to provide robust baseline ornithological survey data for the wintering season. This data will be used to inform a separate ecological impact assessment and appropriate assessment for the proposed development.

2.4 Relevant Legislation

The following key legislative provisions are applicable to wild birds in Ireland: Irish Wildlife Act 1976 (revised); the Birds Directive (EU Directive 2009/147/EC on the conservation of wild birds); the European Communities (Birds and Natural Habitats) Regulations 2011, as amended (S.I. no. 477 of 2011) and the International Convention on Wetlands of International Importance (the Ramsar Convention), 1971.

3. METHODS

3.1 Scope

3.1.1 Description of Study Area

The ornithology study area was defined as a 500m radius of the viable area for turbines (Figure 2-1). This boundary accounts for both detecting birds that use the wind farm site occasionally and spatial inaccuracies in observational data, as well as ancillary structures. The ornithology study area was used for Vantage Point Surveys, following Scottish Natural Heritage (SNH; now NatureScot) 2017 guidance that flight activity surveys encompass an area extending 500m beyond the potential outermost proposed turbines. A 500m radius of the ornithology study area boundary was used for Winter Walkover Surveys, as SNH (2017) does not prescribe a specific winter walkover methodology, the methodology was broadly based on breeding bird survey methodologies described in Bibby *et al.* (2000) and Gilbert *et al.* (1998). A 2km radius of the ornithology study area boundary was used for Hen Harrier Roost Surveys, based on SNH (2017), Gilbert *et al.* (1998) and O'Donoghue (2019).

3.1.2 Ecological Features Considered

Ecological features considered in the scope of the surveys were the habitats present on-site and, in the hinterland, as reviewed by aerial photography and reconnaissance visits, and the Special Protection Areas (SPA) designated under the Birds and Habitats (92/43/EEC) Directives Natura 2000 network within foraging range for SCI species and/or 15km of the site. Bird species' ecological importance and nature conservation interest was also considered. Species of conservation concern included those listed on Annex I of the Birds Directive that occur in Ireland, species that are a Special Conservation Interest (SCI) of SPAs within foraging range for SCI species and/or 15km of the site, species on the Red List of Birds of Conservation Concern in Ireland (Gilbert *et al.*, 2021) and all raptor species that occur in Ireland, because these species are particularly sensitive to wind farm developments.

3.1.3 Consultation

MKO undertook a consultation exercise to inform the scope of the surveys. Table 3-1 provides a list of the organisations consulted and notes where responses have been received.

Table 3-1 Consultation Response Summary

No.	Consultee	Response to Consultation
1	Birdwatch Ireland	No response
2	National Parks & Wildlife Service	Initial response received 18/06/2018. Confirmation received 30/12/2019 from NPWS that no more recent information was available.

3.2 Desk Study

A comprehensive desk study was undertaken prior to surveys to search for any relevant information on species of conservation concern which potentially use the study area. The assessment included a thorough review of the available ornithological data including:

- Review of online web-mappers from the National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC);
- Review of Irish Wetland Bird Survey (I-WeBS) data;
- Review of the Bird Atlas (Balmer *et al.*, 2013);

- Review of specially requested records from the NPWS Rare and Protected Species Database.

3.3 Field Surveys

The approach to wintering bird surveys for the proposed wind farm is based on recommendations given in Scottish Natural Heritage (SNH; now NatureScot) 2017 guidance (SNH, 2017). This guidance is recognised as standard good practice guidance throughout the UK and Ireland for surveying birds to inform impact assessment for onshore wind farms. Field surveys were undertaken from October 2020 to March 2021 inclusive. Individual survey types are described below.

3.3.1 Vantage Point Surveys

Vantage point surveys were undertaken following the guidance of SNH (2017) from four vantage point locations during the 2020-2021 winter season.

Vantage Point Locations and Viewshed Analysis

Vantage point locations are presented in Table 3-2. Viewshed analysis was carried out to confirm the sufficiency of the chosen vantage point locations. Viewsheds were calculated using Resoft Wind Farm ZTV (Zone of Theoretical Visibility) software in combination with Mapinfo Professional (Version 10.0) using a notional layer suspended at 25m, which is representative of the minimum height considered for the Potential Collision Height (PCH) based on the turbine model at the time the vantage point locations were selected. Note that while the relevance of being able to view as much of the site to ground level is acknowledged, the SNH guidance emphasises the importance of visibility of the ‘collision risk volume’ when the data is to be used to estimate the risk of collision for birds with turbines. Therefore, the viewshed analysis aims to identify the most suitable locations to site vantage points such that the airspace of the turbine rotor swept area is in view using the fewest possible number of vantage points. The vantage point locations were tested for visibility coverage by creating a viewshed point 1.75m in height (to represent the height of the observer) on a map using 10m contours terrain data. The relative height of any surrounding trees and its effects on visibility is also accounted for in the analysis. Using the ZTV software, a viewshed of 360° was produced calculating an area 25m from ground level up to a 2km radius. The resulting viewshed image was then cropped to 180° to give the viewshed.

Survey Effort

A total of 36 hours of watches was undertaken at each of the vantage point locations, equating to a total of six hours per vantage point per month. The survey effort is summarised in Table 3-2 and full details are presented in Appendix 2 of this report, including dates, times, duration and weather conditions. The location of vantage points is shown in Appendix 2.

Table 3-2 Summary of Vantage Point Survey effort

	VP1 ITM ¹ X 592930 Y 842236	VP2 ITM X 592615 Y 842428	VP3 ITM X 593496 Y 843692	VP4 ITM X 590407 Y 840997
Month	Hours			
October	20/10/2020 6 hrs	13/10/2020 6 hrs	23/10/2020 6 hrs	21/10/2020 6 hrs
November	19/11/2020 6 hrs	26/11/2020 6 hrs	25/11/2020 6 hrs	27/11/2020 6 hrs
December	19/12/2020 6 hrs	15/12/2020 6 hrs	14/12/2020 6 hrs	16/12/2020 6 hrs
January	11/01/2020 6 hrs	15/01/2020 6 hrs	13/01/2020 6 hrs	17/01/2020 6 hrs

¹ Irish Transverse Mercator Co-Ordinates

	VP1 ITM ¹ X 592930 Y 842236	VP2 ITM X 592615 Y 842428	VP3 ITM X 593496 Y 843692	VP4 ITM X 590407 Y 840997
Month	Hours			
February	06/02/2020 6 hrs	04/02/2020 6 hrs	19/02/2020 6 hrs	21/02/2020 6 hrs
March	06/03/2020 6 hrs	08/03/2020 6 hrs	18/03/2020 6 hrs	10/03/2020 6 hrs
Total Hours	36:00	36:00	36:00	36:00

Primary Target Species

The target species for vantage point surveys were defined by legal and/or conservation status, following SNH (2017) guidance, which states that “*in most circumstances the target species will be limited to those species which are afforded a higher level of legislative protection.*” A list of primary target species was drawn from the following sources:

- Species that are SCIs of the SPAs within foraging range for SCI species and/or 15km of the site;
- Species listed on Annex I of the Birds Directive that occur in Ireland;
- Species listed on the Red List of Birds of Conservation Concern in Ireland (Gilbert *et al.*, 2021) with the exception of Red List passerines, as these are generally not significantly impacted by wind energy developments.

Secondary Target Species

SNH (2017) also states that “*local circumstances may indicate that survey information should also be acquired on other species, especially those of regional conservation concern*”. A list of secondary target species comprised:

- All other waterbirds that occur in Ireland that are not included as primary target species;
- All raptors that occur in Ireland that are not included as primary target species.

Data Collection

Data on bird observations and flight activity was collected by the surveyor by scanning the arc of 180° and a 2km radius from the fixed location. Surveys were scheduled to provide a spread over the full daylight period including at dawn and dusk (starting or ending an hour before dawn or an hour after dusk on alternate months for six months) to coincide with the highest peaks of bird activity and to record any wildfowl migration or crepuscular species. Breaks of at least 30 minutes were taken every 3 hours to minimise observer fatigue. A 10-minute settling in period was allowed for at the start of each vantage point to allow the surveyor to get into place, and to minimise the impact of surveyor disturbance on flight activity. For each primary target species observation, the following details were recorded:

- Date, time, and location of observation;
- Number of species recorded;
- Total duration of flightline observation;
- Duration at each of flightline at each height band;
- Species age and sex (where determinable);
- Habitat(s);
- Behaviour.

Recording height bands were determined based on the likely turbine specifications under consideration at the time of the survey (upper tip height 175m and lower tip height 25m). Flight heights were attributed to four distinct height bands as follows:

- > Band 1 = 0 - 10m (below the likely rotor swept area);
- > Band 2 = 10 - 25m (potentially within the likely rotor swept area, at least in part);
- > Band 3 = 25 - 175m (within the likely rotor swept area, PCH);
- > Band 4 = >175m (above the likely rotor swept area).

Although recording of secondary species is subsidiary to recording of primary target species, secondary target species were also recorded to provide an index of flight activity for secondary target species within the site.

3.3.2 Winter Walkover Surveys

Winter walkover surveys were undertaken to determine the presence of bird species of conservation concern within the study area. Transect routes were devised to ensure coverage of different habitat complexes between vantage point locations within the study area. Because SNH does not prescribe a specific winter walkover methodology, the methodology was broadly based on breeding bird survey methodologies described in Bibby *et al.* (2000) and Gilbert *et al.* (1998).

The site was visited and transects walked four times between October and March. Survey effort is presented in Appendix 2, including dates, times, duration and weather conditions. A map of the survey area is presented in Appendix 1.

3.3.3 Hen Harrier Roost Surveys

Potential hen harrier roost sites within 2km of the proposed development area were surveyed for the presence of roosting hen harrier during hen harrier roost surveys in line with SNH (2017). Survey work was undertaken following methodology by Gilbert *et al.* (1998) and O'Donoghue (2019) from October to March. Surveys were conducted from four locations each month which overlooked the most suitable hen harrier roosting habitat. Survey effort is presented in Appendix 2, including dates, times, duration and weather conditions. A map of the survey locations is presented in Appendix 1.

3.4 Project Team

This report has been prepared by Zak O'Connor (B.Sc.), Ornithologist of MKO, and reviewed by Thalie Konstantinidis (B.Sc.), Ornithologist, Patrick Manely (B.Sc.), Senior Ornithologist of MKO and Pdraig Cregg (B.Sc. M.Sc.), Principal Ornithologist of MKO. All are suitably qualified ornithologists with experience in completing avifaunal assessments and competent experts for the purposes of the preparation of this report, following SNH (2017) and CIEEM (2017) ecological reporting guidelines.

3.4.1 Field Team

Field surveys were undertaken by Lee Dark and Robert Vaughan. Surveyors are suitably qualified competent experts in field ornithology.

3.5 Survey Limitations

A comprehensive suite of bird surveys was undertaken at the site between October 2020 and March 2021. Results from the 2020-2021 winter season are derived from a continuous six months of surveying undertaken in accordance with best practice guidance, SNH (2017). The survey duration and scope are



considered entirely satisfactory. There were no issues relating to study area access/weather/time of year/Coillte forestry operations.

4. RESULTS

4.1 Desk Review

4.1.1 Sites Designated for Nature Conservation

Using GIS software, sites designated for nature conservation within the potential zone of influence of the proposed wind farm development were identified. In the absence of any specific European or Irish guidance, SNH (2016) was consulted. This document provides guidance in relation to the identification of connectivity between proposed development proposals and SPAs. It takes into consideration the distances some species may travel beyond the boundary of their SPAs and outlines information on dispersal and foraging ranges of certain bird species. In addition, using a precautionary approach, sites within a 15km radius of the proposed wind farm were identified. Sites designated for birds are listed below in Table 4-1.

Table 4-1 Special Protection Areas within 15 kilometres of site

Designated site and code	Special Conservation Interest Species ²	Distance from wind farm site (km)
Sligo/Leitrim Uplands (004187)	<ul style="list-style-type: none"> > Peregrine > Chough 	9.2km

4.1.2 Previous Survey Data

4.1.2.1 Breeding/Wintering Bird Atlas Records

Bird Atlas 2007-11: 'The breeding and wintering birds of Britain and Ireland' (Balmer *et al.*, 2013) is the most recent comprehensive work on wintering/breeding birds in Ireland. It provides information on species and their wintering/breeding status in 10km hectads. The site lies within hectad G94. Table 4-2 presents a list of nine species of conservation interest recorded within this hectad.

Table 4-2 Bird atlas data for relevant hectads

Species Name	Bird Atlas 2007-2011		Conservation Status
	G94 Breeding	G94 Winter	
Golden Plover	-	Present	BD, RL
Peregrine	Prob	-	BD, SCI
Hen Harrier	Conf	Present	BD
Greenland White-fronted Goose	-	Present	BD
Merlin	Poss	-	BD
Woodcock	-	Present	RL
Red Grouse	Prob	Present	RL
Kestrel	Prob	Present	RL
Meadow Pipit	Conf	Present	RL

BD=Birds Directive; RL = BoCCI Red List; Poss = possible breeding; Prob = probable breeding; Conf= confirmed breeding; Seen = present without evidence of breeding.

² It is noted that a determination will be made on whether there is connectivity between the SPAs and the wind farm site at the appropriate assessment stage

4.1.2.2 Rare and Protected Species Dataset

An information request was sent to the NPWS requesting records from the Rare and Protected Species Database. The sections below provide records obtained from the NPWS of the rare and protected breeding bird species:

Hen Harrier

Table 4-3 below presents the NPWS records for hen harrier nest sites to defined radii (km) of the development site.

Table 4-3 NPWS Hen Harrier Nest Site Records

Year	Within Site Boundary	0-1km from site boundary	1-3km from site boundary	3-5km from site boundary
2015	No Records	1 confirmed breeding site	No Records	1 confirmed breeding site
2010	No Records	3 confirmed breeding sites	1 sighting	1 confirmed breeding site, 1 additional sighting
2005	No Records	3 sightings	No records	No records
1998-2004	No Records	No Records	No Records	No records

Peregrine

The NPWS identified one confirmed peregrine nest site within 3-5km of the site. The observation was recorded during a survey in 2002.

Red Grouse

The NPWS hold records of red grouse in the area. Between 2000 and 2011, this species was recorded on nine occasions. One observation was recorded on site. There were two records located approximately 500m from the site, one just south of Dough Mountain and the other just north of Kilea. The remainder of the observations were recorded over 3km from the proposed development area. Three of these observations were recorded in the vicinity of Thur Mountain, to the south-east of the proposed development area.

4.2 Field Surveys

4.2.1 Flight Activity Survey

Observations during vantage point surveys, winter walkover surveys, hen harrier roost and incidental observations are provided below. Summaries include individual species accounts of primary and secondary target species.

4.2.2 Vantage Point Surveys

4.2.2.1 Primary Target Species

Golden Plover

There was one observation of golden plover during vantage point surveys. This observation was of a flock of at least ten birds being flushed near Dough Mountain. With poor visibility that day, it was difficult to follow these birds in flight, and therefore no time was recorded at PCH. Observations are shown in Appendix 1 Figure 1.2.

Hen Harrier

There were five observations of hen harrier during vantage point surveys. All observations were of individual birds hunting within 500m of the site at both the northern and southern sections of the site. These observations were recorded in December and January. No time was recorded at PCH. Observations are shown in Appendix 1 Figure 1.1.

Merlin

There was one observation of merlin during vantage point surveys. This observation was of an individual bird commuting through the northern section of the site in February. No time was recorded at PCH. Observations are shown in Appendix 1 Figure 1.3.

Red Grouse

There were two observations of red grouse during vantage point surveys. One observation was of a pair of birds in February, with the male in song, and the other observation was of a male calling in late March. Both observations were on, or within 500m of the northern section of the site. Observations are shown in Appendix 1 Figure 1.4.

Snipe

There were six observations of snipe during vantage point surveys. All observations were of birds flying within 500m of the site. Four of these observations occurred at VP3 near Killea. There was no time recorded at PCH. Observations are shown in Appendix 1 Figure 1.5.

Woodcock

There were four observations of woodcock during vantage point surveys. All observations occurred around dusk during the February survey at VP4 near Tawnyfeacle. Observations were of individual birds commuting. No time was recorded at PCH. Observations are shown in Appendix 1 Figure 1.6.

4.2.2.2 Secondary Target Species

Buzzard

There were 20 observations of buzzard during vantage point surveys. Just five observations occurred within 500m of the site with the remainder occurring within 1.5km of the site. Most observations were of birds flying with some observations of birds perching, calling and hunting. There was one observation of an individual displaying in February and another observation of an individual displaying in early March. Nine observations were recorded at PCH for a combined time of 715 seconds. Observations are shown in Appendix 1 Figure 1.7.

Greenshank

There were three observations of greenshank during vantage point surveys. All observations occurred at VP3 during the November survey. Birds were only heard calling up at Dough Mountain and it is thought there were at most four individuals.

Sparrowhawk

There were seven observations of sparrowhawk during vantage point surveys. Most observations were of birds commuting or hunting but there were two observations of a bird displaying within 500m of the site in January and March. An additional three observations occurred within 500m of the site. Two observations occurred at PCH for a total combined time of 106 seconds. Observations are shown in Appendix 1 Figure 1.8.

4.2.3 Winter Walkover Surveys

Hen Harrier

There were two observations of hen harrier during winter walkover surveys. Both observations occurred within 500m of the site in October. One observation was of an individual commuting north of Boleyboy and the other was of an individual being flushed by the surveyor near Saddle Hill. Observations are shown in Appendix 1 Figure 2.1.

Golden Eagle

There was one observation of a golden eagle during winter walkover surveys. In March, an immature bird was seen circling over a conifer plantation on site before flying south. Observations are shown in Appendix 1 Figure 2.2.

Meadow Pipit

There were ten observations of meadow pipit during winter walkover surveys. These observations were recorded across the site and flock size varied from 2 to 30 birds.

Red Grouse

There were five observations of red grouse during winter walkover surveys. One individual was heard displaying near Killea within 500m of the site in late February. The other observations were recordings of red grouse latrines (droppings/feathers), indicating the presence of this species. Observations are shown in Appendix 1 Figure 2.3.

Redwing

There were seven observations of redwing during winter walkover surveys. These observations were recorded across the site the flock size varied from 4 to 50 birds.

Snipe

There were nine observations of snipe during winter walkover surveys. Observations ranged from one to three birds. Most observations were of birds being flushed by the surveyor but there was one instance of three birds flying overhead. Observations are shown in Appendix 1 Figure 2.4.

Woodcock

There were four observations of woodcock during winter walkover surveys. Two observations were of individual birds being flushed by the surveyor. The other two observations were recordings of woodcock tracks on the ground, indicating the presence of this species. Observations are shown in Appendix 1 Figure 2.5

Buzzard

There were four observations of buzzard during winter walkover surveys. All observations occurred on, or within 500m of the site. Observations consisted of between one and two individuals with birds observed displaying in February and March. Observations are shown in Appendix 1 Figure 2.6.

Jack Snipe

There was one observation of a jack snipe during the winter walkover surveys. One individual was flushed near Lisdarush in February.

Sparrowhawk

There were three observations of sparrowhawk during winter walkover surveys. Observations were of individual birds perching and commuting and one observation was of an individual bird displaying in January.

4.2.4 Hen Harrier Roost Surveys

There were two observations of hen harrier during the hen harrier roost surveys. Both observations occurred in October 2020 with birds seen commuting within 500m of the site. There was no roosting observed throughout the winter season. Observations are shown in Appendix 1 Figure 3.1.

4.2.5 Incidentals Observations

Whooper Swan

There was one incidental observation of whooper swan during a hen harrier roost survey. In October 2020, a flock of six birds was observed commuting 850m north of the site near Coolodonnell. Observations are shown in Appendix 1 Figure 4.1.

There was one incidental observation of a kestrel during a hen harrier roost survey. This observation was of a female bird to the north of the site, near Coolodonnell, in October 2020. Observations are shown in Appendix 1 Figure 4.2.

Snipe

There were three incidental observations of snipe during the survey period. One observation occurred within 500m of the site. The other two were recorded within 1km of the site. There was one observation of a bird drumming (displaying) in March near Mullanyduffy. Observations are shown in Appendix 1 Figure 4.3.

Woodcock

There were four incidental observations of woodcock during the winter survey period. Observations ranged from one to two individuals with birds either flushed by the surveyor or observed flying and calling. Observations are shown in Appendix 1 Figure 4.4.

Buzzard

There were five incidental observations of buzzard during hen harrier roost surveys. All observations were of individual birds commuting or calling and were recorded within 700m of the site. Observations are shown in Appendix 1 Figure 4.5.

Sparrowhawk

There were four incidental observations of sparrowhawk during hen harrier roost surveys. Observations were of individual birds commuting with just one observation recorded within 500m of the site. Observations are shown in Appendix 1 Figure 4.6.

5. DISCUSSION

Ornithological surveys were conducted at the Lissinagroagh wind farm site from October 2020 to March 2021.

The key observations during surveys are outlined below:

- A possible red grouse breeding territory was identified within 500m of the site. A pair of birds were observed together in February and male territorial calls were heard from suitable breeding habitat in March.

The remaining pertinent observations are listed below:

- Snipe, woodcock, buzzard and sparrowhawk are resident at the site and were frequently observed utilising habitats on, or within 500m of the site.
- Hen harrier was recorded occasionally during the winter survey period. No roosting activity was observed, however, this species was observed hunting and commuting over the site.
- Golden eagle and whooper swan were recorded infrequently and in low numbers at the wind farm site.

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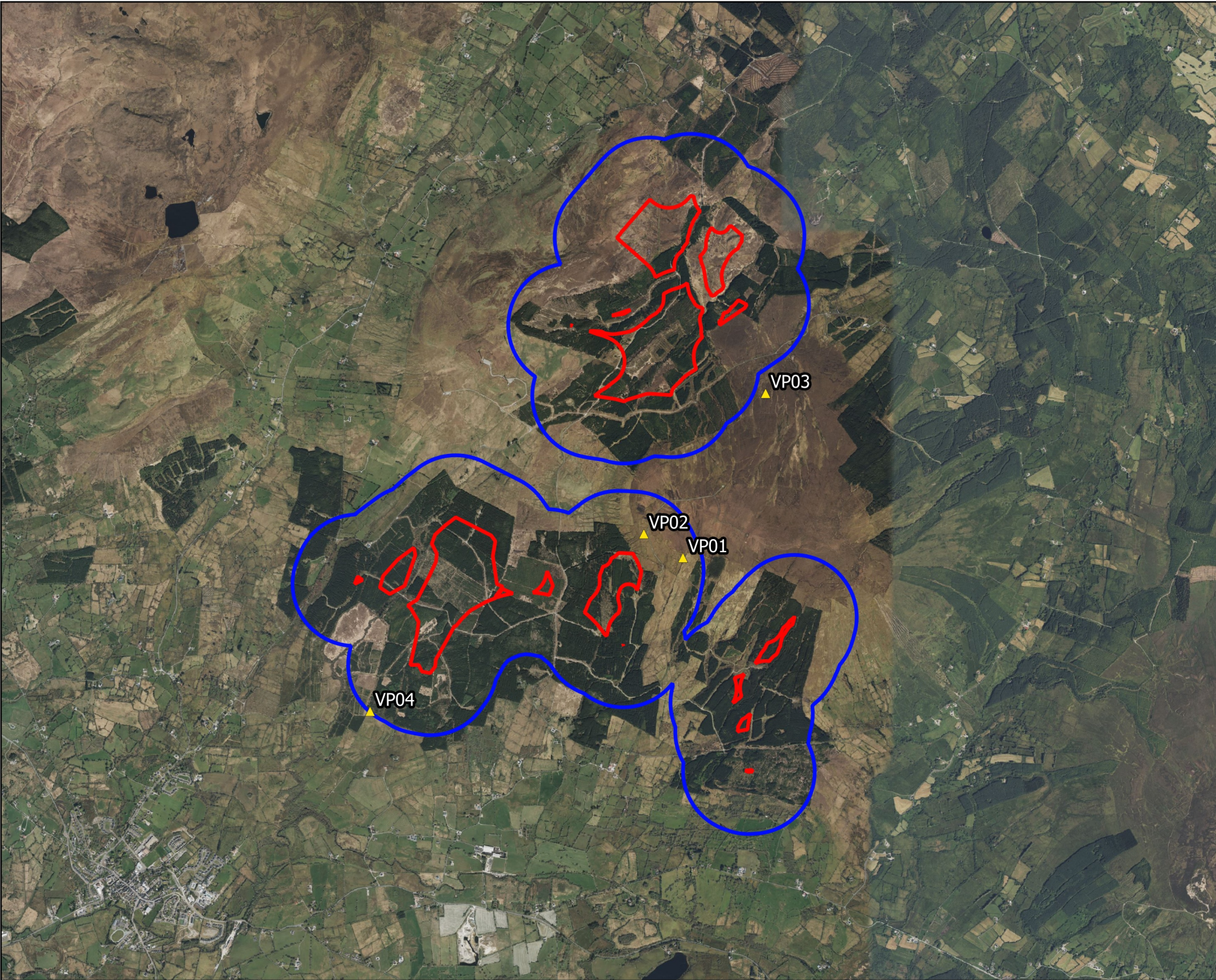
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APPENDIX 1

FIGURES

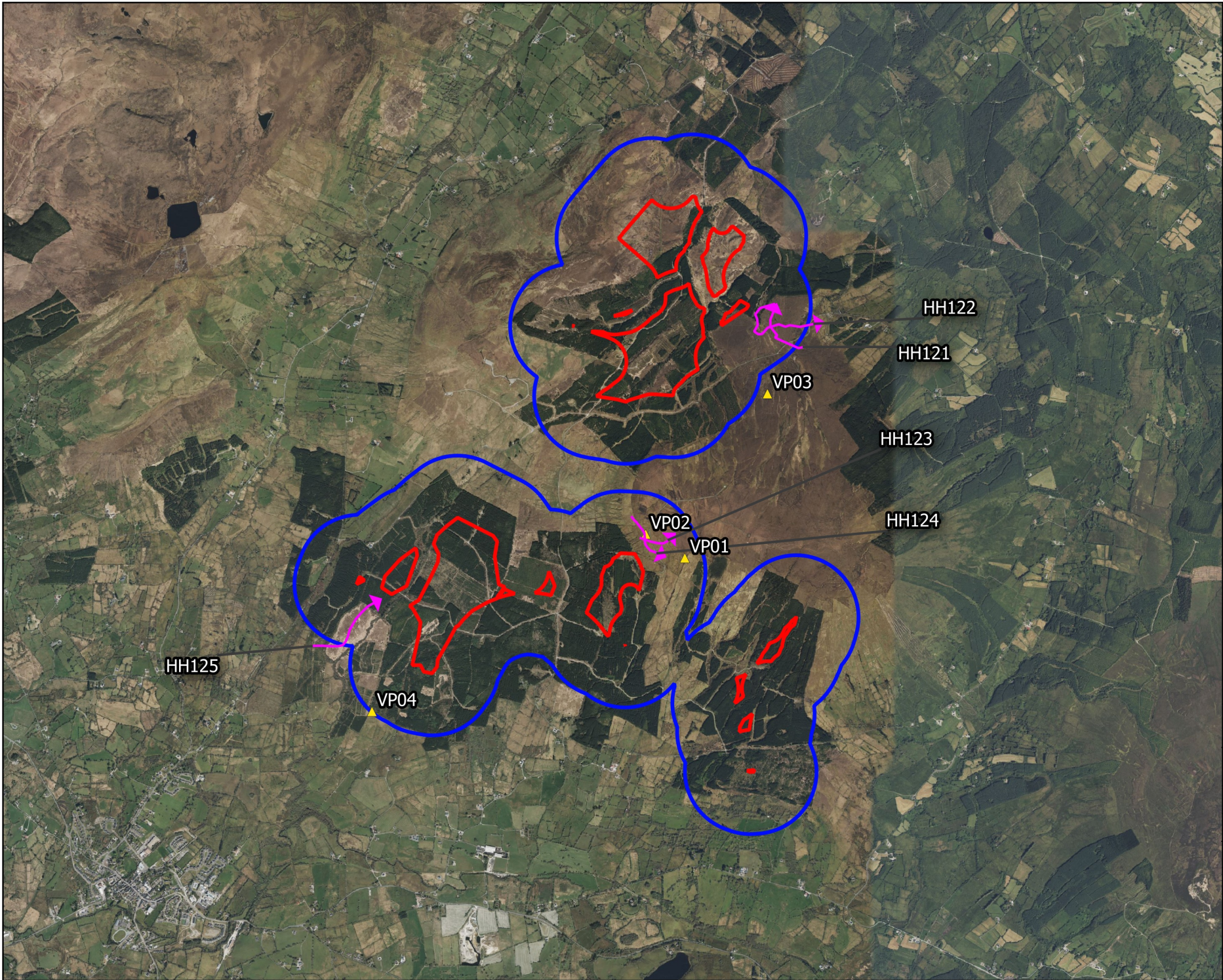


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location

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Drawing Title	
Vantage Point Survey Locations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1
Scale	Date
1:40,000	20.09.2024
<p>MKO Planning and Environmental Consultants Tuam Road, Galway Ireland, H91 VV84 +353 (0) 91 735611 email: info@mkofireland.ie Website: ww.mkofireland.ie</p>	

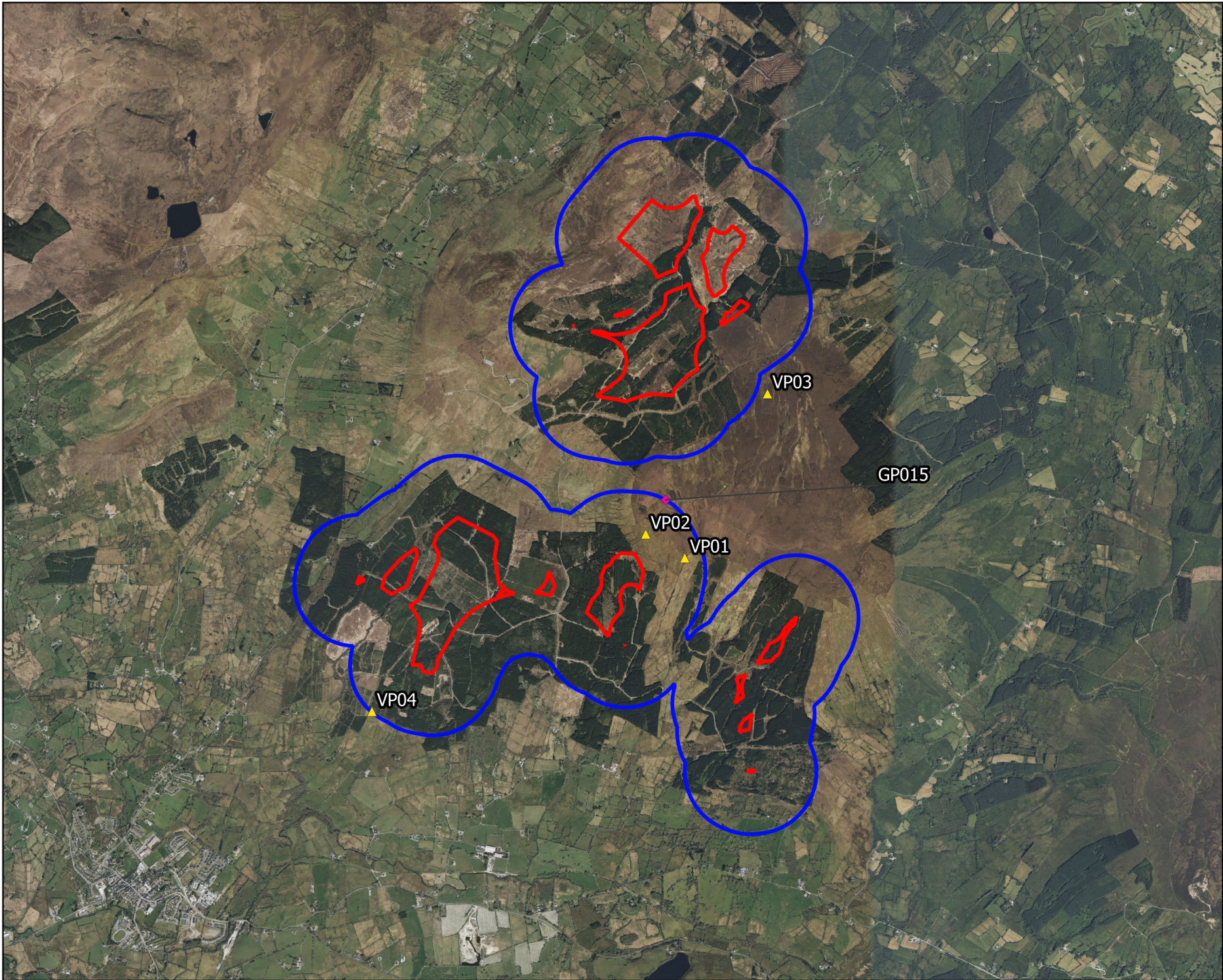


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- ➔ Flightline

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Drawing Title	
Vantage Point Survey Hen Harrier Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.1
Scale	Date
1:40,000	20.09.2024
<p>MKO Planning and Environmental Consultants</p> <p>Tuam Road, Galway Ireland, H91 VV84 +353 (0) 91 735611 email: info@mkofireland.ie Website: ww.mkofireland.ie</p>	

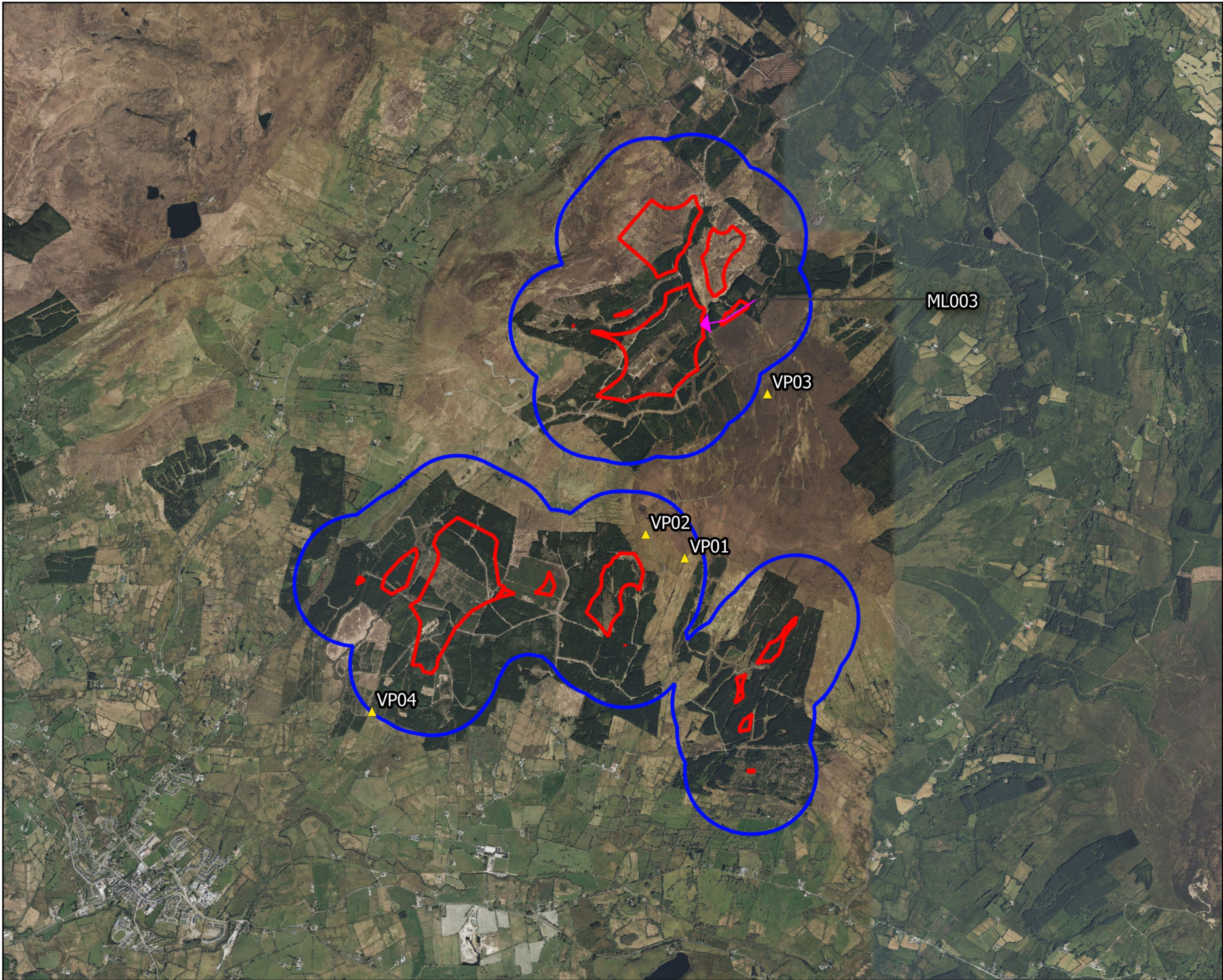


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- ◆ Observation

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Drawing Title	
Vantage Point Survey Golden Plover Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.2
Scale	Date
1:40,000	20.09.2024
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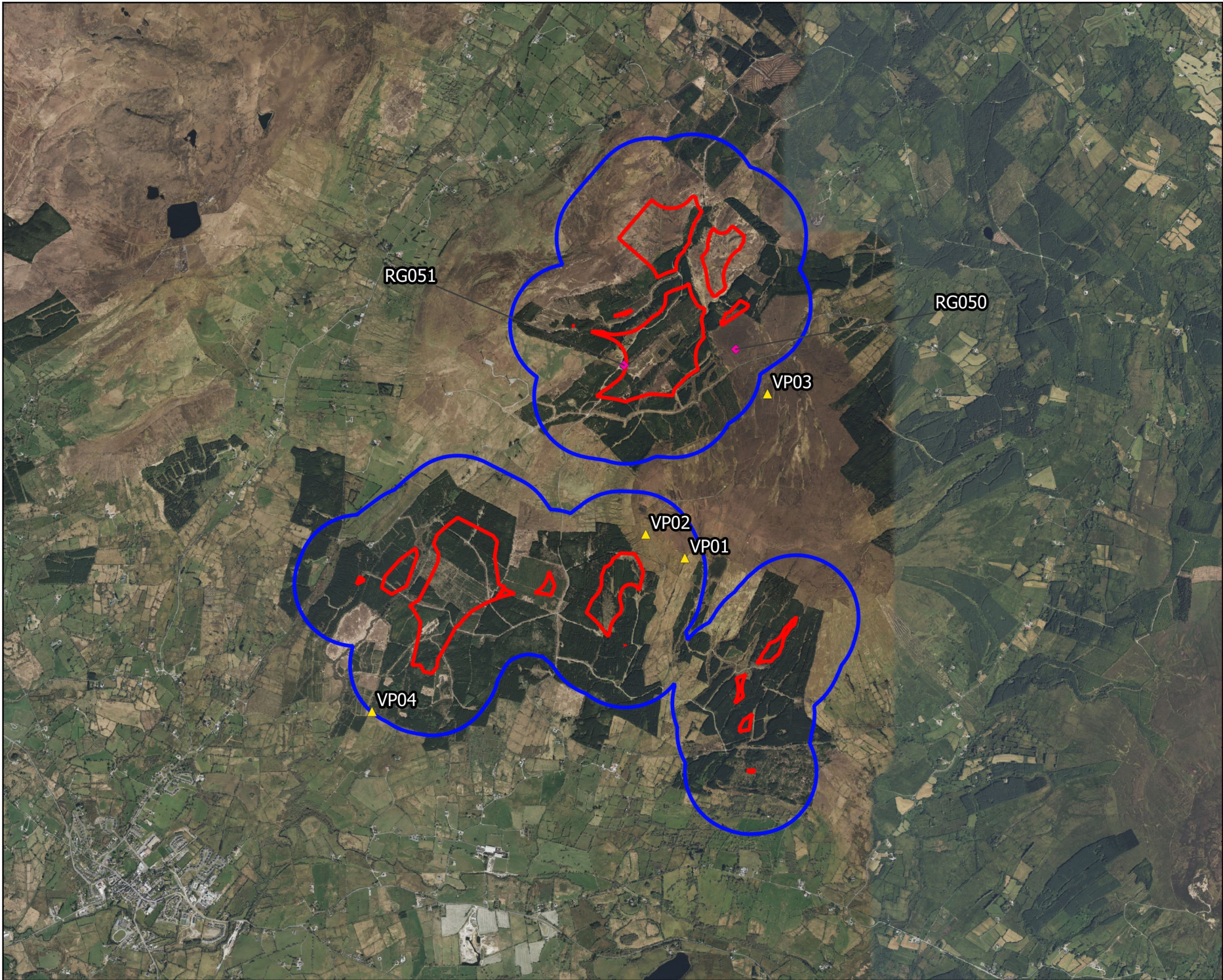


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- ➔ Flightline

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Drawing Title	
Vantage Point Survey Merlin Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.3
Scale	Date
1:40,000	20.09.2024
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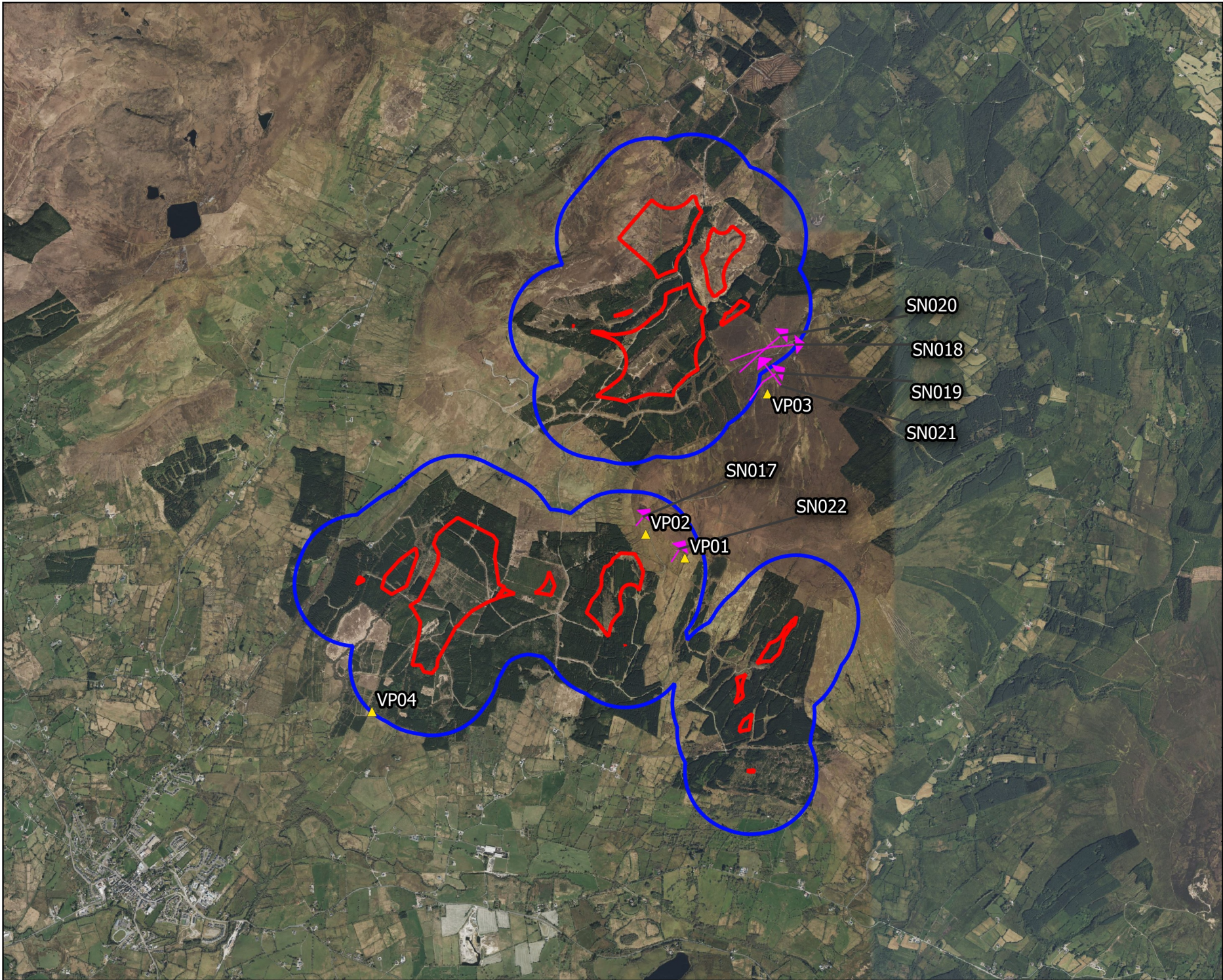


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- ◆ Observation

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Drawing Title	
Vantage Point Survey Red Grouse Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.4
Scale	Date
1:40,000	20.09.2024
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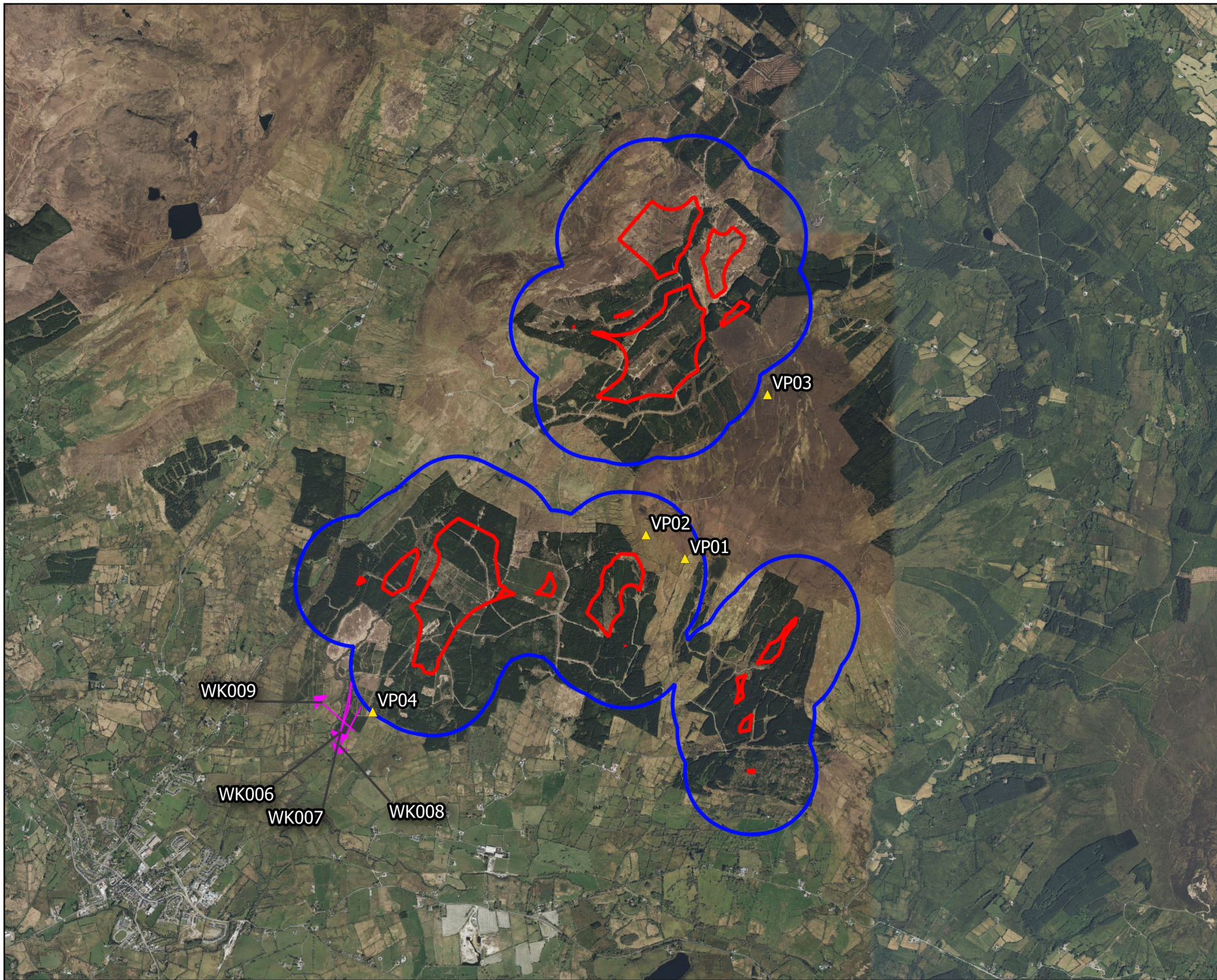


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- Flightline

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Drawing Title	
Vantage Point Survey Snipe Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.5
Scale	Date
1:40,000	20.09.2024
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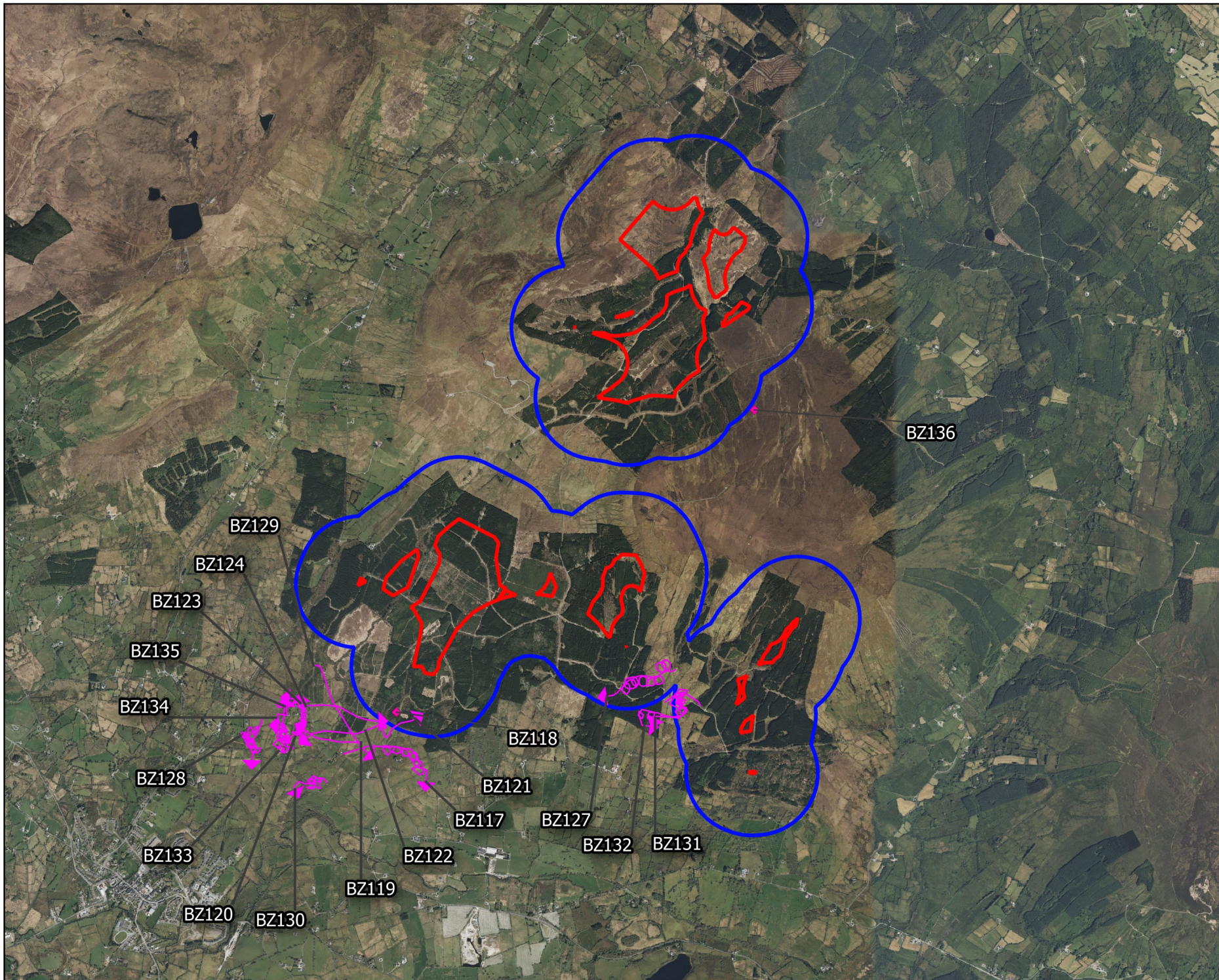


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- Flightline

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Drawing Title	
Vantage Point Survey Woodcock Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.6
Scale	Date
1:40,000	20.09.2024
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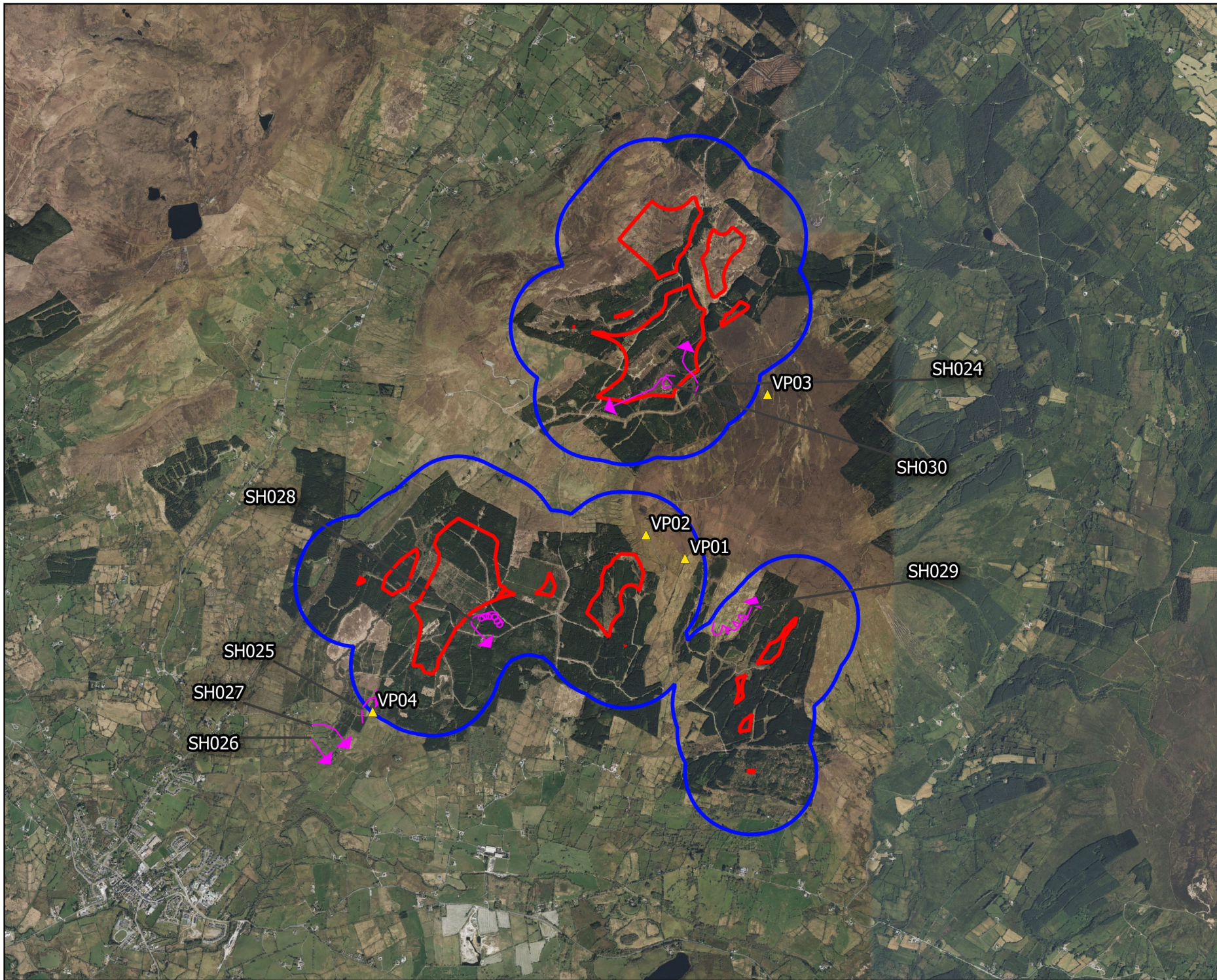


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- Flightline
- ◆ Observation

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Drawing Title	
Vantage Point Survey Buzzard Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.7
Scale	Date
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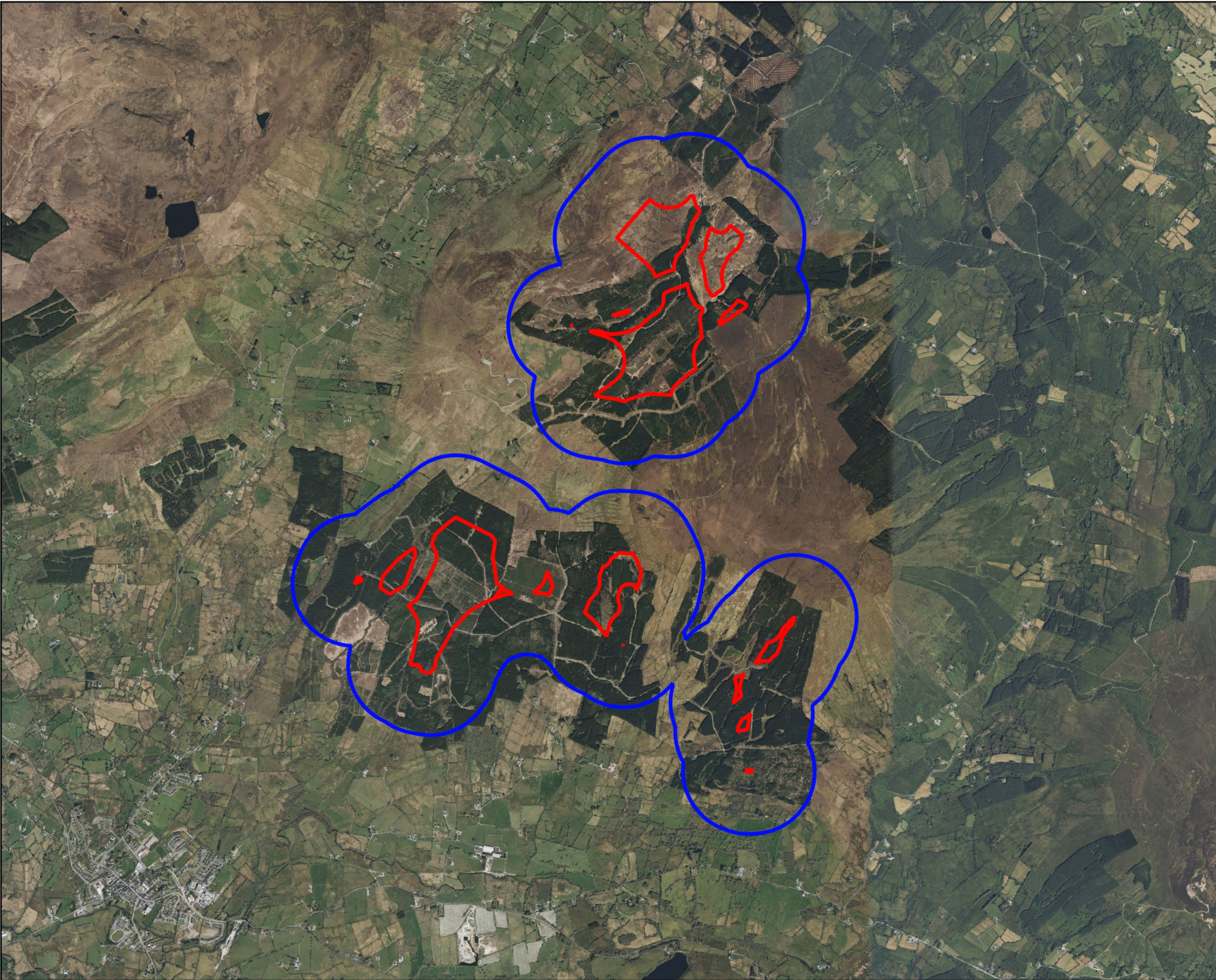


Map Legend



- Wind Farm Site
- 500m Survey Radius
- ▲ Vantage Point Location
- Flightline

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Drawing Title	
Vantage Point Survey Sparrowhawk Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 1.8
Scale	Date
1:40,000	20.09.2024
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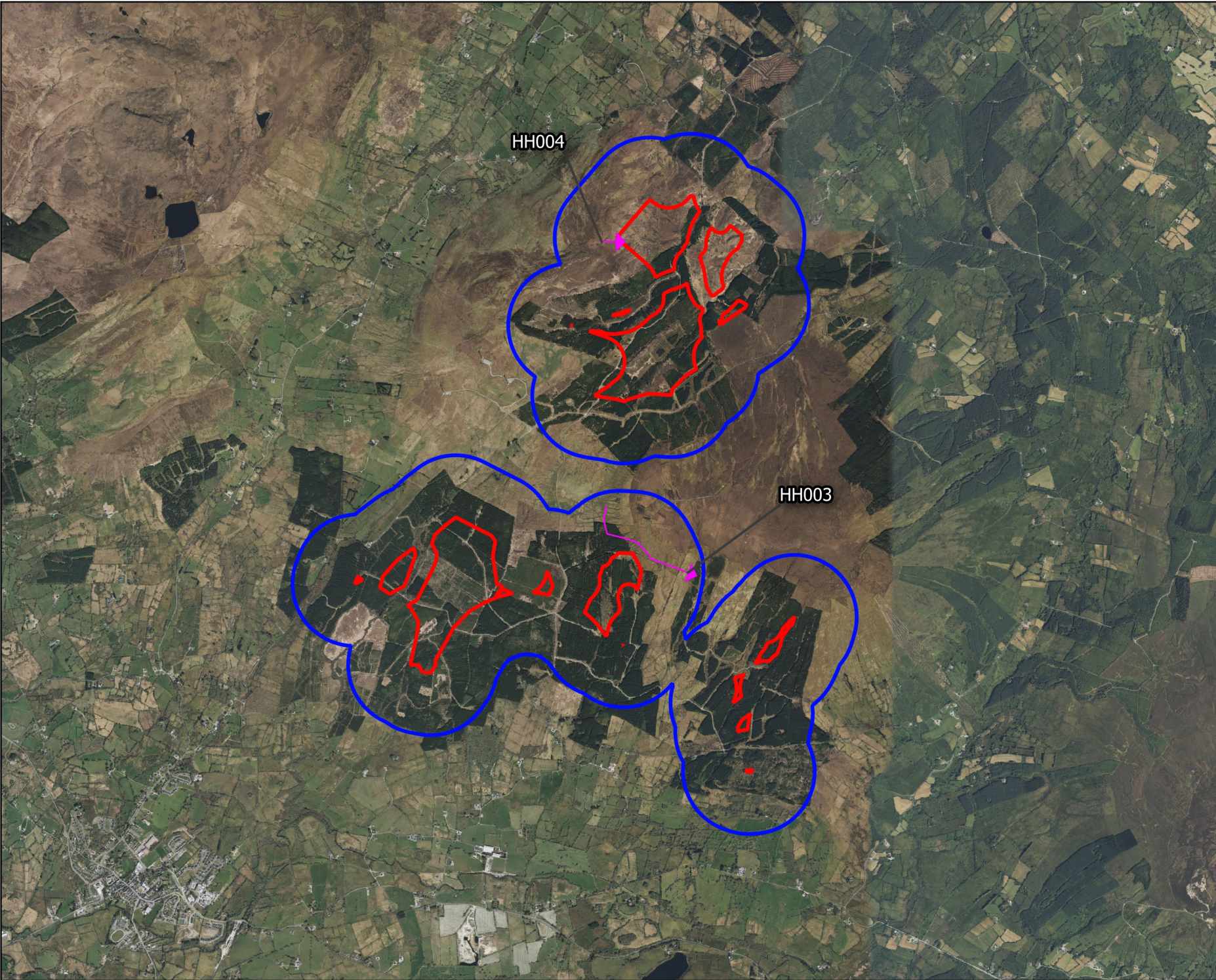


Map Legend

-  Wind Farm Site
-  500m Survey Radius

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Drawing Title	
Winter Walkover Survey Area	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2
Scale	Date
1:40,000	20.09.2024
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Map Legend

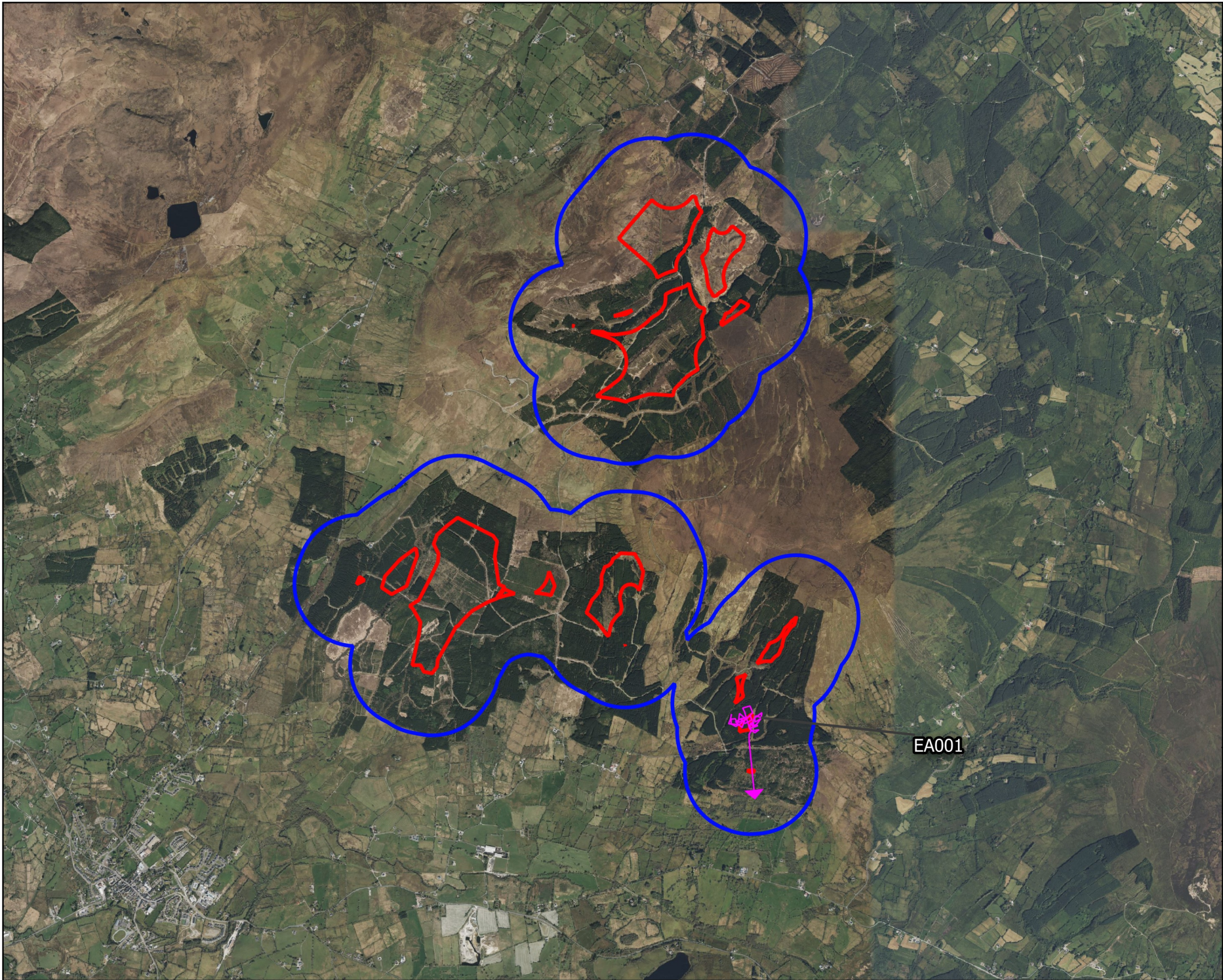
- Wind Farm Site
- 500m Survey Radius
- Flightline

HH004

HH003

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Drawing Title	
Winter Walkover Survey Hen Harrier Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2.1
Scale	Date
1:40,000	20.09.2024
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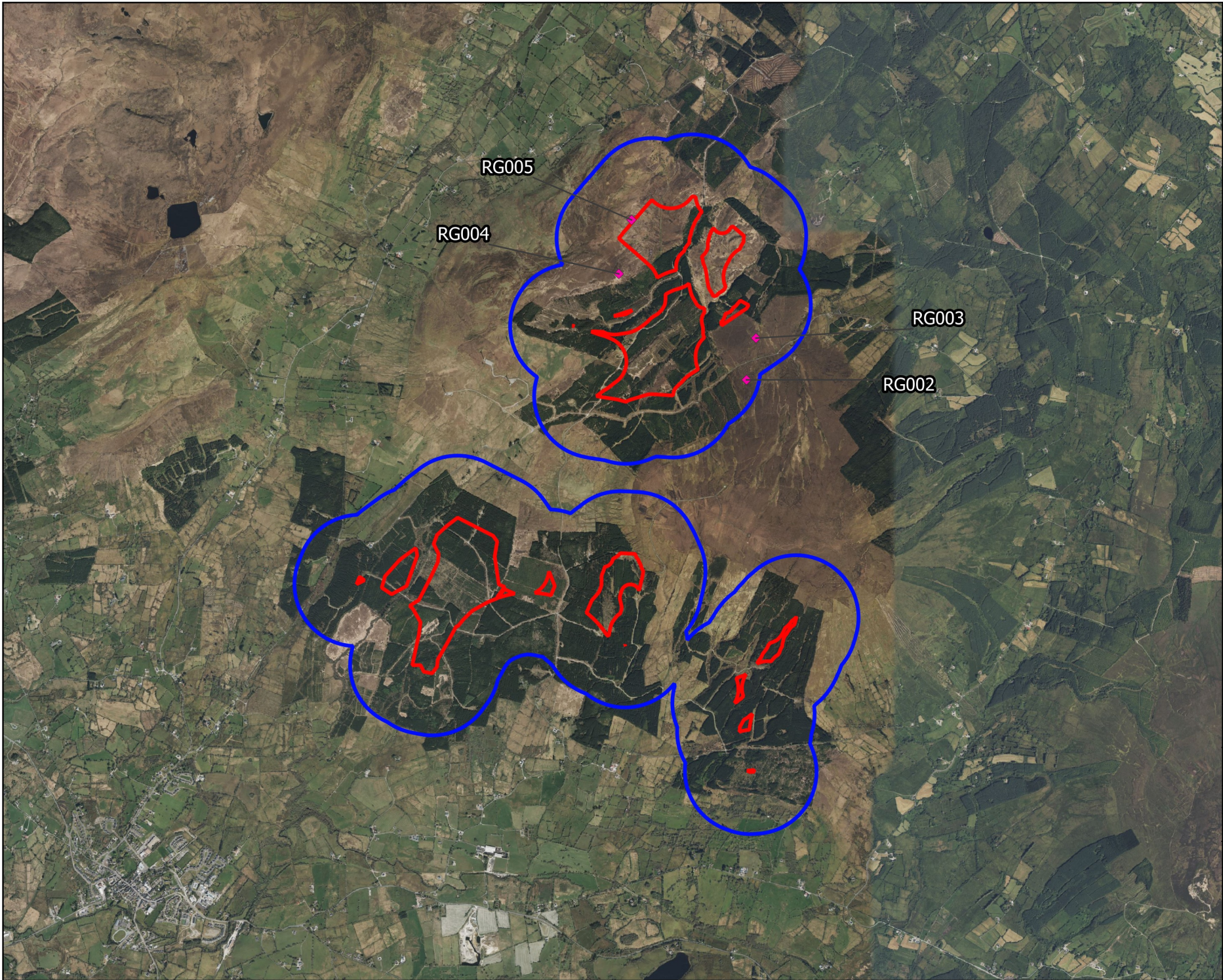
Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Winter Walkover Survey Golden Eagle Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2.2
Scale	Date
1:40,000	20.09.2024
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EA001

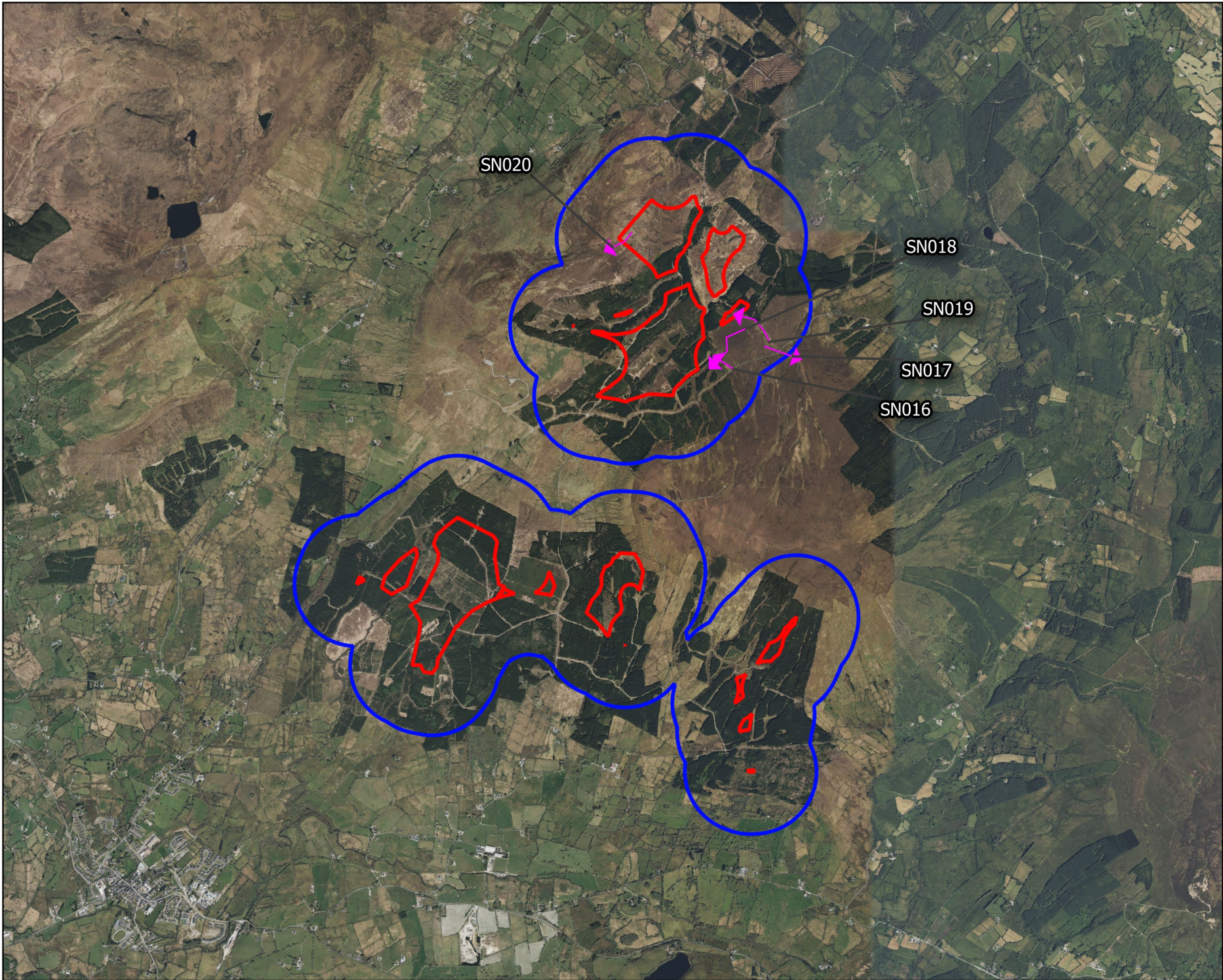


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ◆ Observation

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Drawing Title	
Winter Walkover Survey Red Grouse Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2.3
Scale	Date
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Map Legend

- Wind Farm Site
- 500m Survey Radius
- ➔ Flightline

SN020

SN018

SN019

SN017

SN016

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Drawing Title
**Winter Walkover Survey
 Snipe Observations**

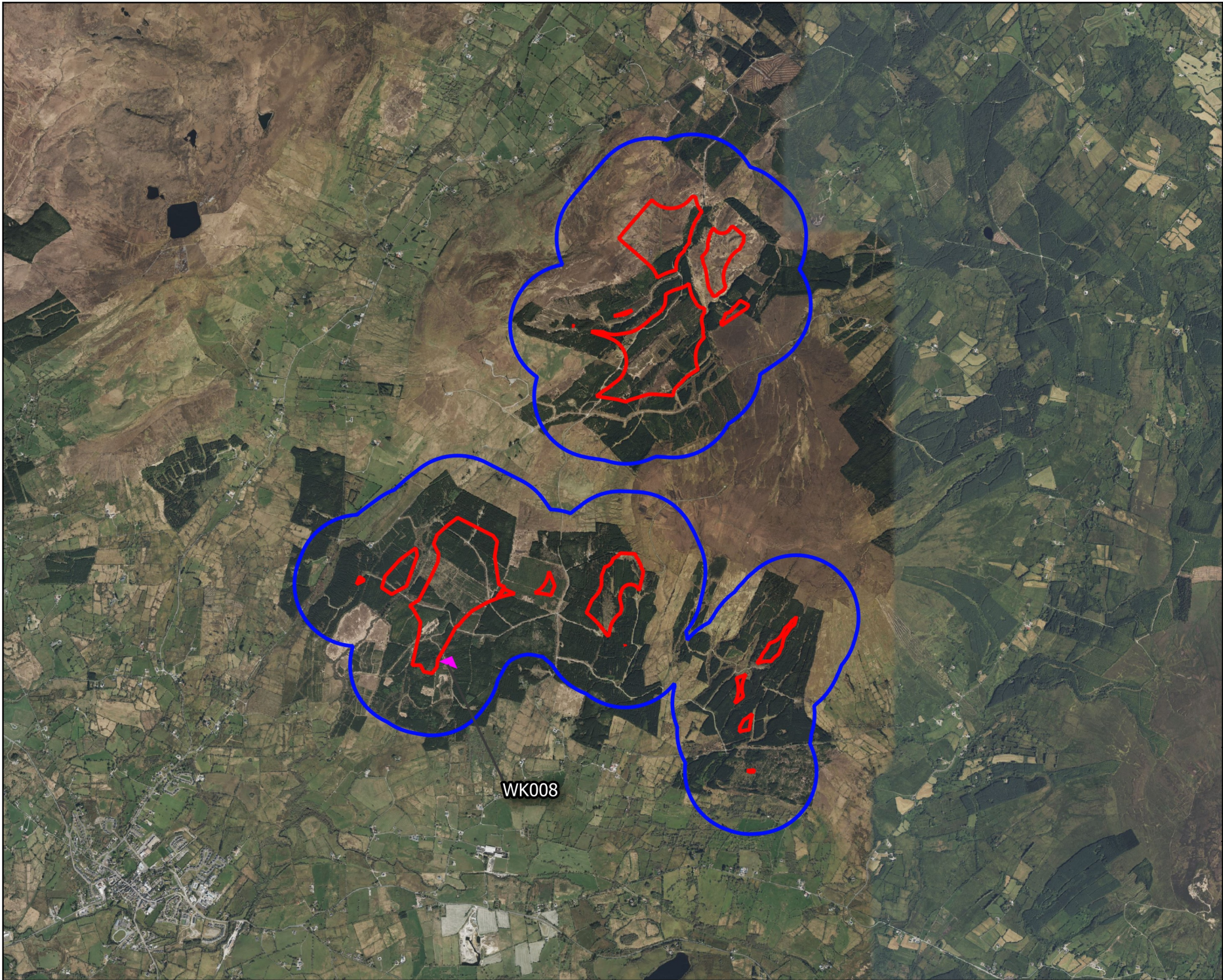
Project Title
Lissinagroagh Wind Farm

Drawn By ZOC	Checked By AOD
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Project No. 200217-a	Drawing No. Fig 2.4
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Scale 1:40,000	Date 20.09.2024
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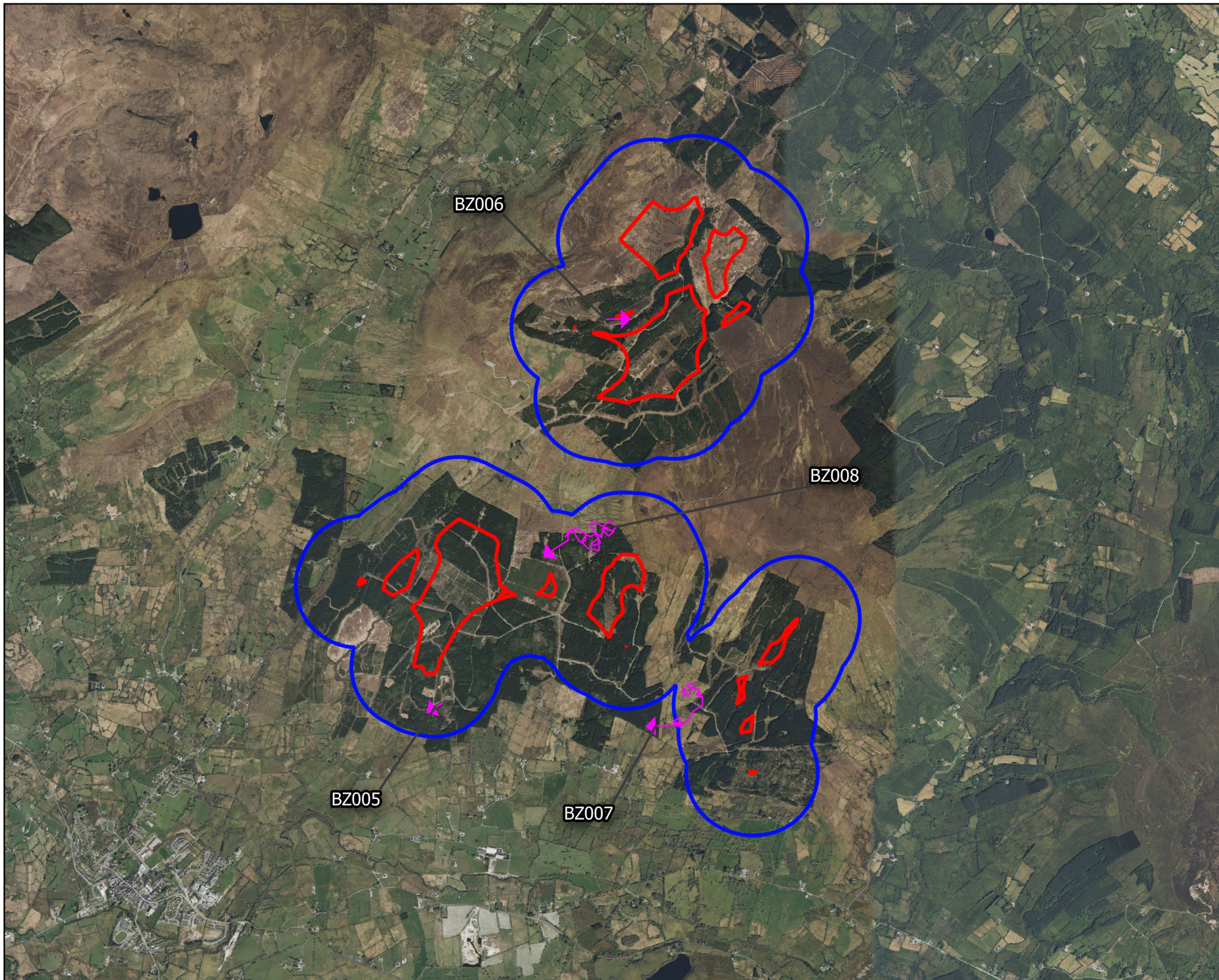


Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Winter Walkover Survey Woodcock Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2.5
Scale	Date
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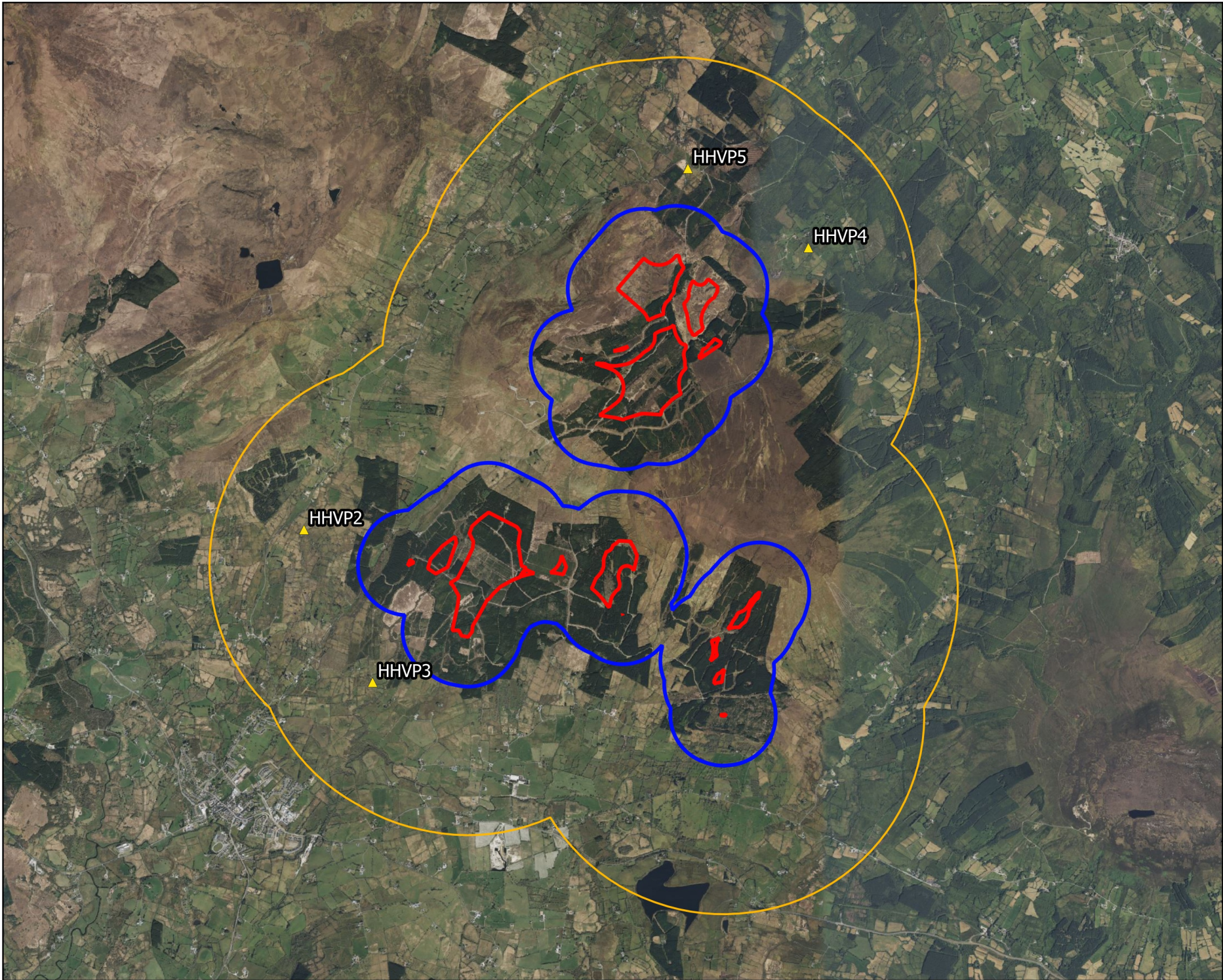


Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Winter Walkover Survey Buzzard Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 2.6
Scale	Date
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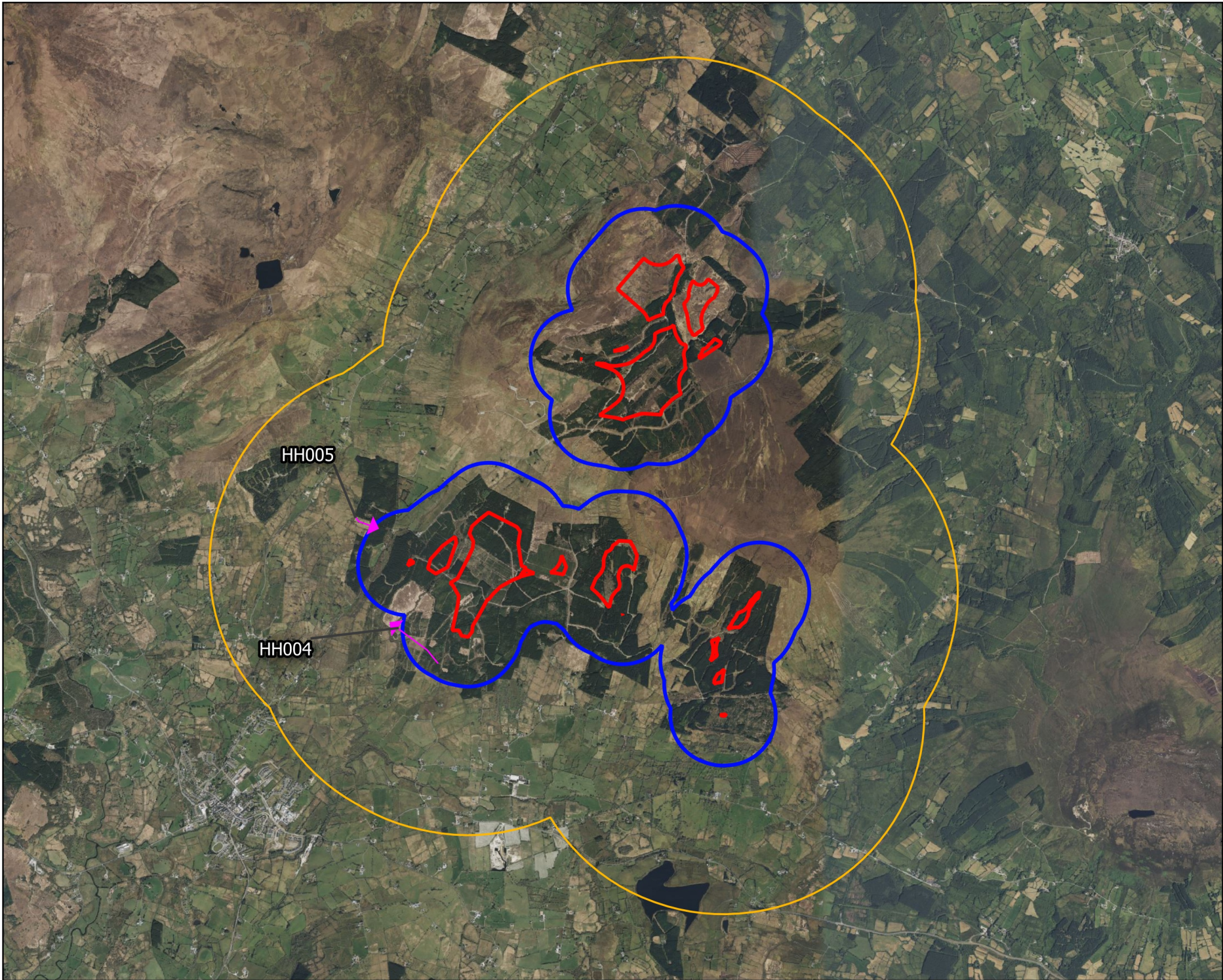


Map Legend

- Wind Farm Site
- 500m Survey Radius
- 2km Survey Radius
- Hen Harrier Roost Survey Location

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Drawing Title	
Hen Harrier Roost Survey Locations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 3
Scale	Date
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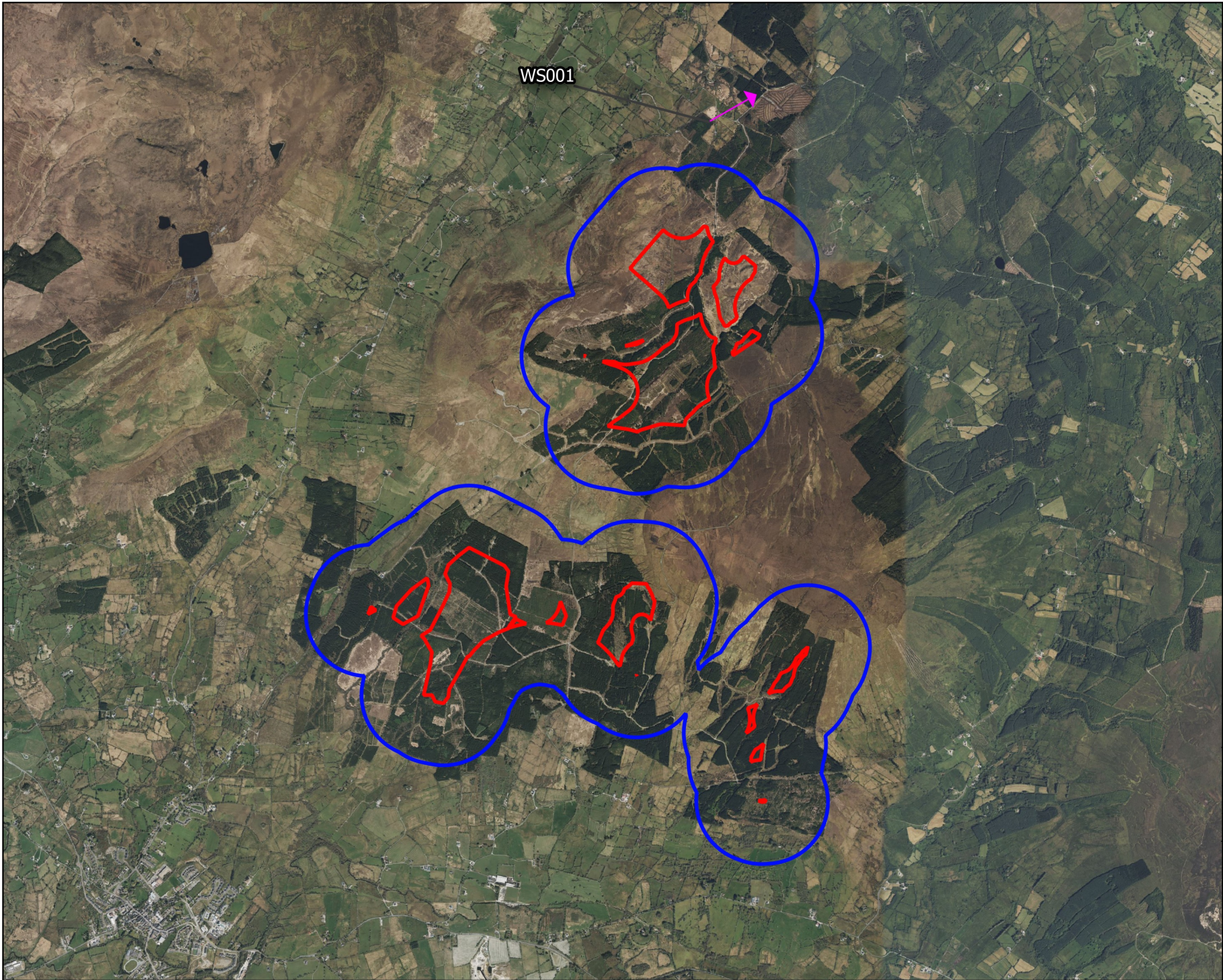


Map Legend

- Wind Farm Site
- 500m Survey Radius
- 2km Survey Radius
- Flightline

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Drawing Title	
Hen Harrier Roost Hen Harrier Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 3.1
Scale	Date
1:50,000	20.09.2024
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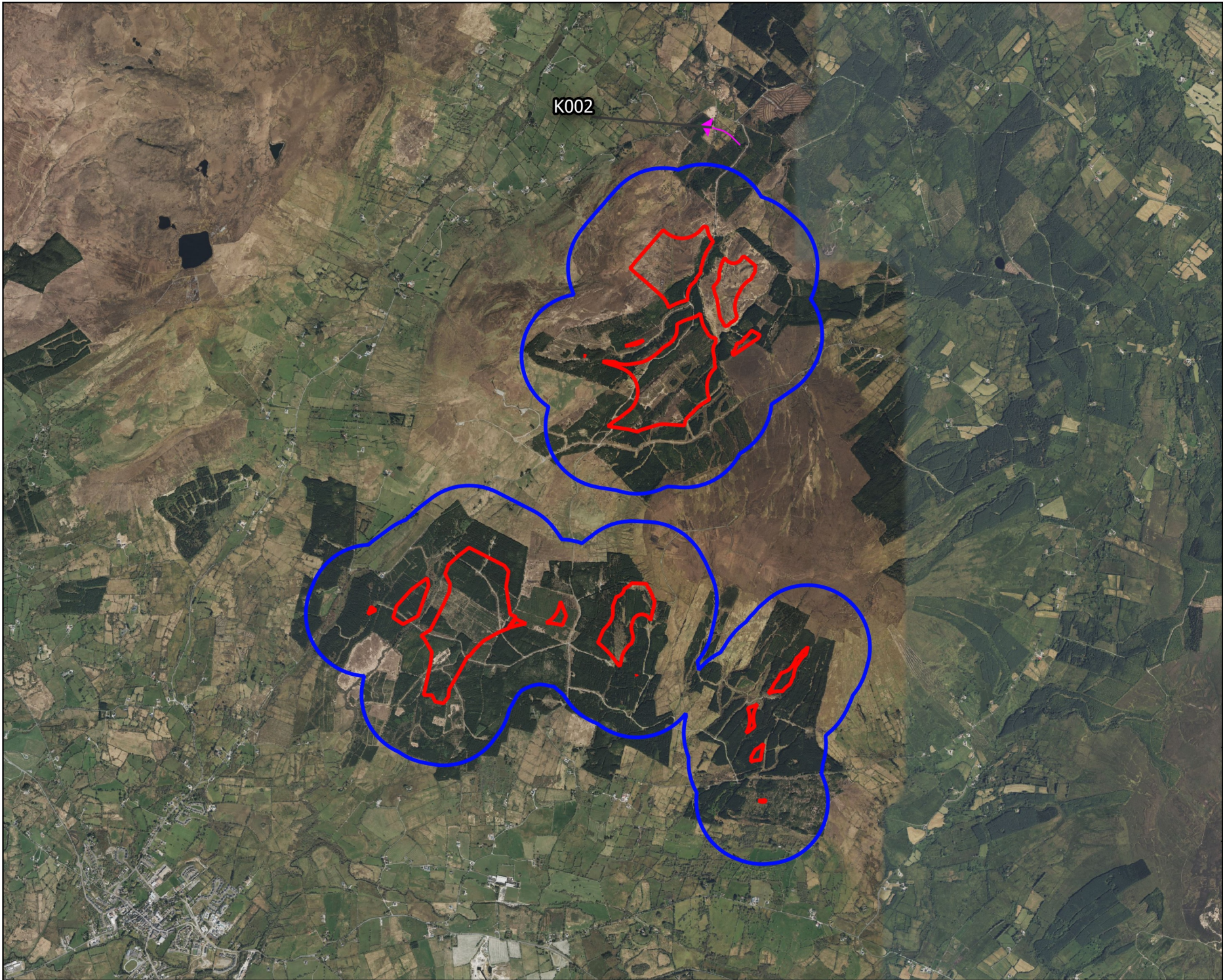
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Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Incidental Whooper Swan Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 4.1
Scale	Date
1:40,000	20.09.2024
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Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title

Incidental Kestrel Observations

Project Title

Lissinagroagh Wind Farm

Drawn By

ZOC

Checked By

AOD

Project No.

200217-a

Drawing No.

Fig 4.2

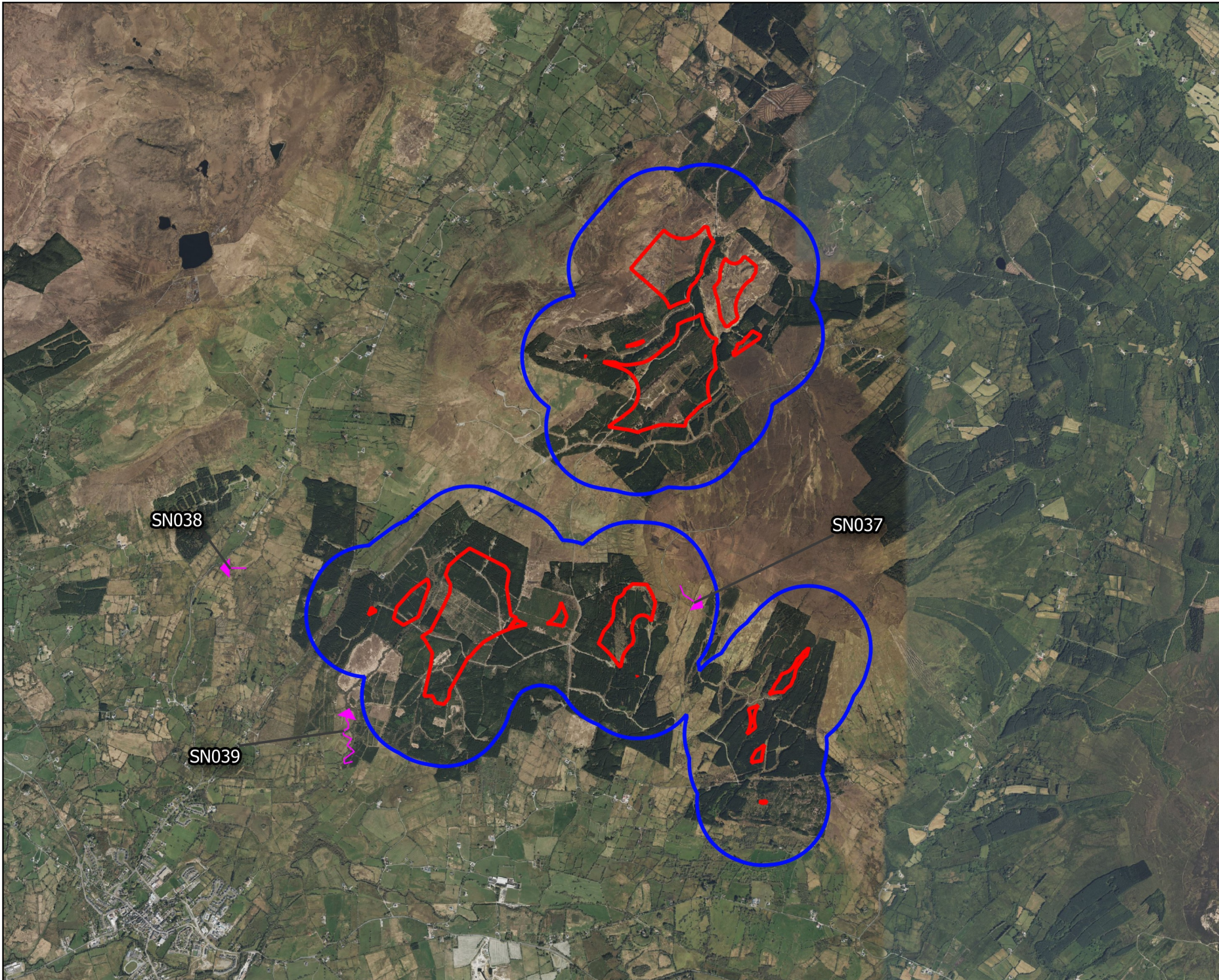
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1:40,000

Date

20.09.2024

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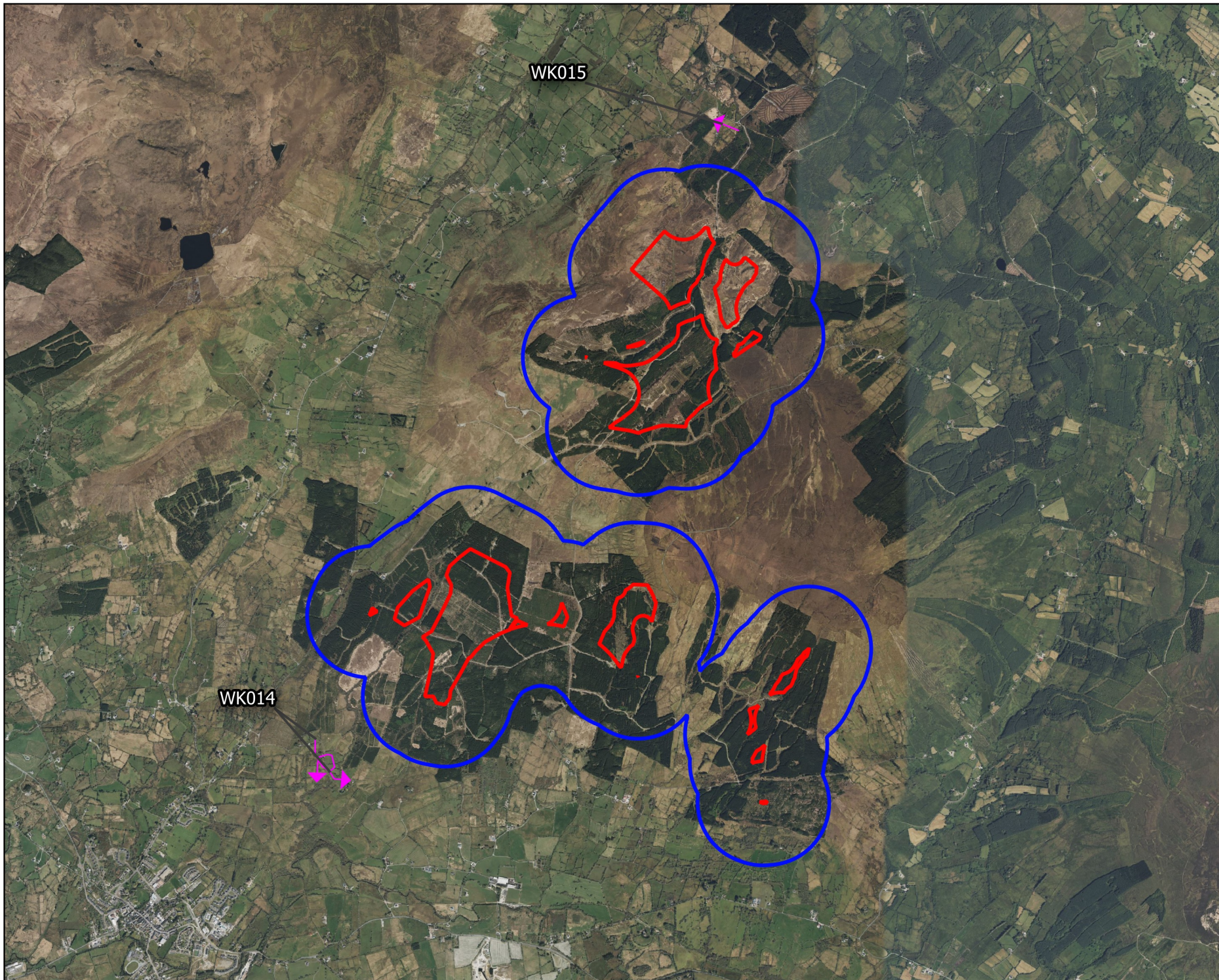


Map Legend

- Wind Farm Site
- 500m Survey Radius
- ➔ Flightline

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Drawing Title	
Incidental Snipe Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 4.3
Scale	Date
1:40,000	20.09.2024
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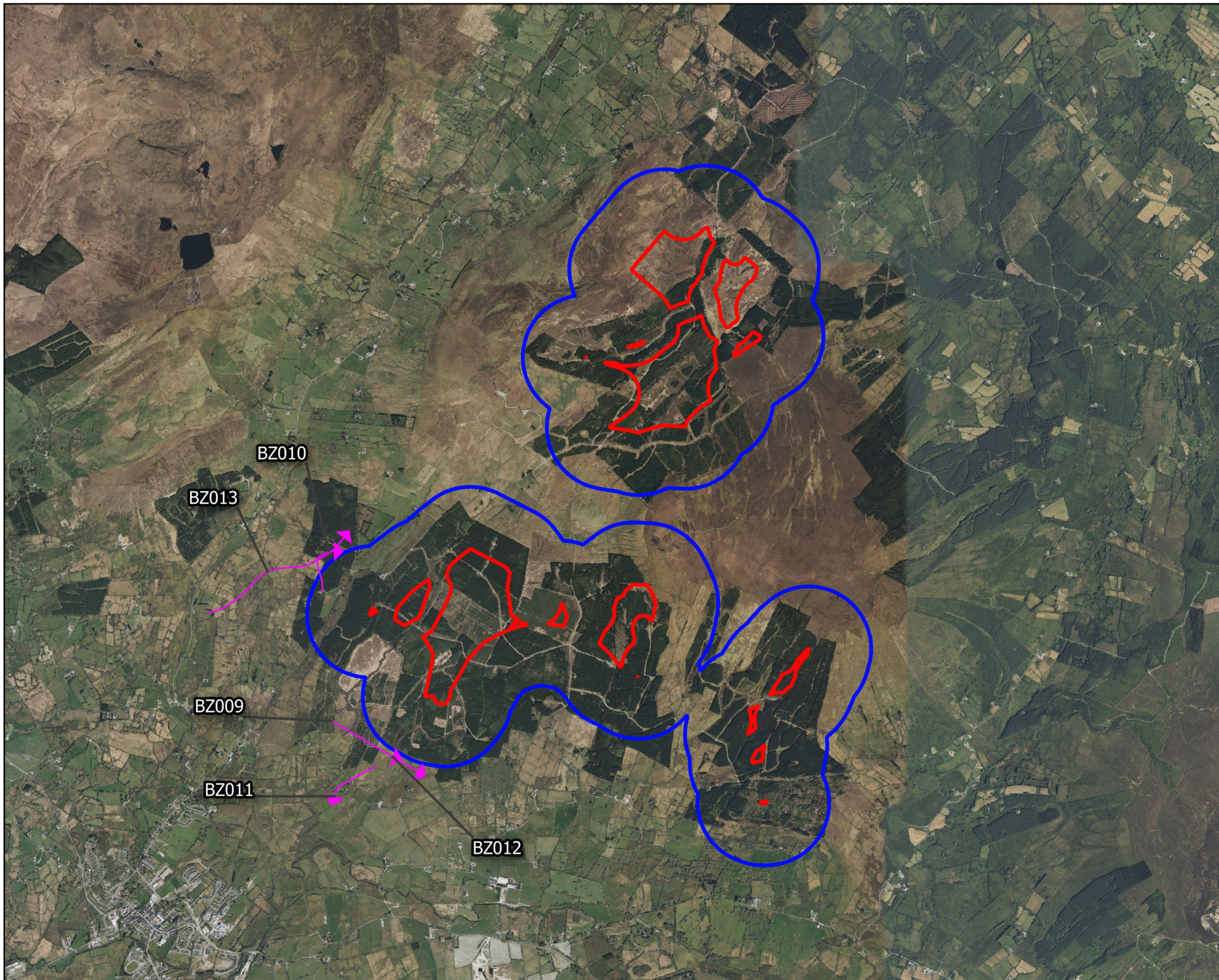


Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Incidental Woodcock Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 4.4
Scale	Date
1:40,000	20.09.2024
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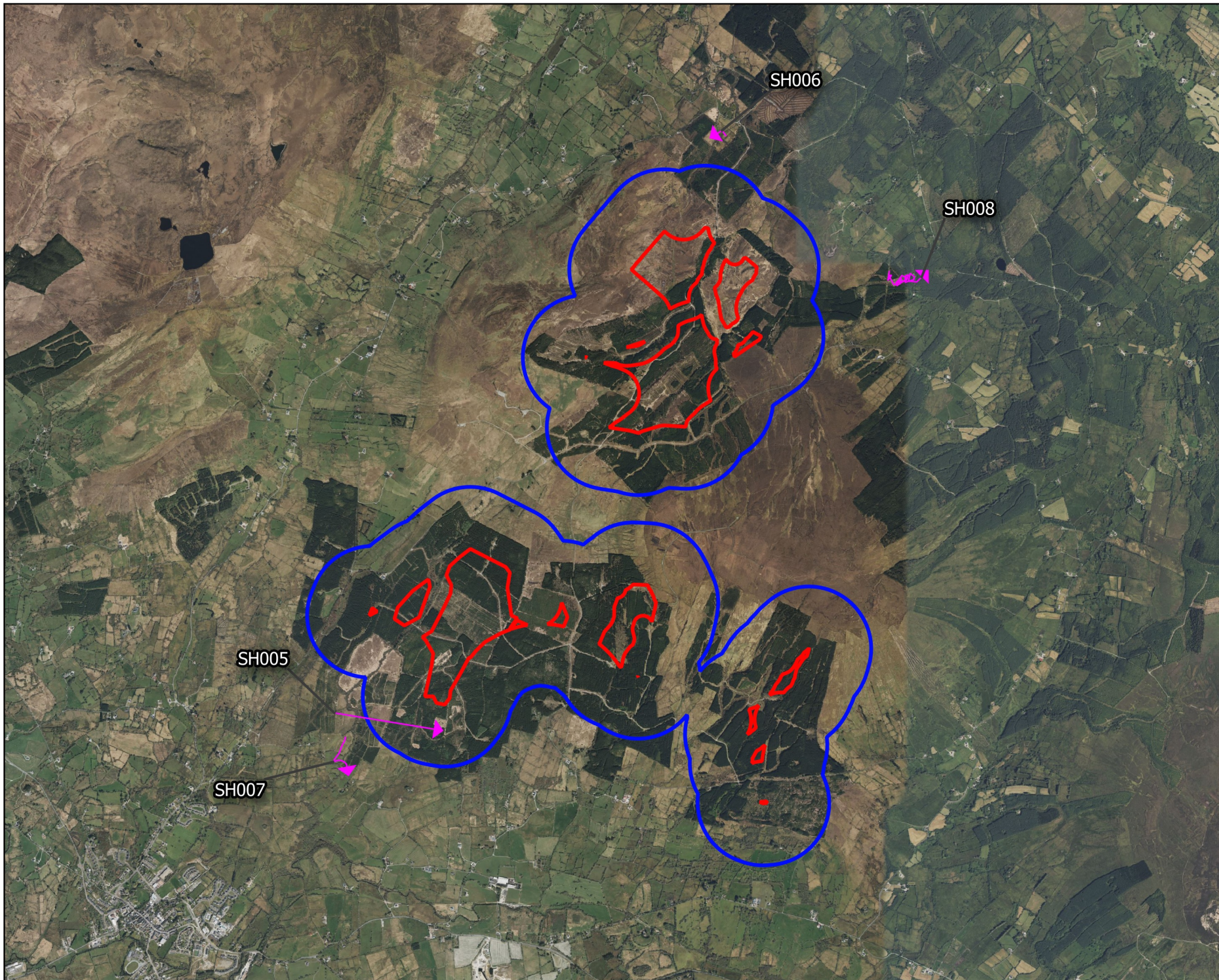


Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Incidental Buzzard Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 4.5
Scale	Date
1:40,000	20.09.2024
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Map Legend

- Wind Farm Site
- 500m Survey Radius
- Flightline

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Drawing Title	
Incidental Sparrowhawk Observations	
Project Title	
Lissinagroagh Wind Farm	
Drawn By	Checked By
ZOC	AOD
Project No.	Drawing No.
200217-a	Fig 4.6
Scale	Date
1:40,000	20.09.2024
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APPENDIX 2

SURVEY DATA



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Table 1 Vantage Point Survey Effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
13/10/2020	Vantage Point Survey	VP2	6:30 starting at 13:10	Visibility: good; Wind speed and direction: moderate breeze N-NE; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
20/10/2020	Vantage Point Survey	VP1	6:30 starting at 12:55	Visibility: good; Wind speed and direction: moderate breeze S-SE; Cloud cover and height: 0% 150-500m; Rain: light showers; Frost: none; Snow: none	Light Rain gradually getting heavier throughout	RV
21/10/2020	Vantage Point Survey	VP4	6:30 starting at 12:50	Visibility: poor; Wind speed and direction: moderate breeze N-NW; Cloud cover and height: 0% >500m; Rain: drizzle; Frost: none; Snow: none	Constant drizzle and passing misty conditions in front of hill	RV
23/10/2020	Vantage Point Survey	VP3	6:32 starting at 12:45	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
19/11/2020	Vantage Point Survey	VP1	3:00 starting at 07:11	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A cold, calm morning and fairly quiet from the elevated Vantage Point, with the exception of plenty of activity from the Raven's near their roost and a handful of Hooded Crow's.	LD
19/11/2020	Vantage Point Survey	VP1	3:00 starting at 10:41	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A cold, calm morning and fairly quiet from the elevated Vantage Point, with the exception of plenty of activity from the Raven's near their roost and a handful of Hooded Crow's.	LD
25/11/2020	Vantage Point Survey	VP3	2:00 starting at 07:22	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: <150m% <150m; Rain: light showers; Frost: none; Snow: none		LD
25/11/2020	Vantage Point Survey	VP3	1:00 starting at 09:22	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: <150m% <150m; Rain: light showers; Frost: none; Snow: none		LD



Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/11/2020	Vantage Point Survey	VP3	1:00 starting at 10:52	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: <150m% <150m; Rain: light showers; Frost: none; Snow: none		LD
25/11/2020	Vantage Point Survey	VP3	2:00 starting at 11:52	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: <150m% <150m; Rain: light showers; Frost: none; Snow: none		LD
26/11/2020	Vantage Point Survey	VP2	6:30 starting at 07:20	Visibility: limited; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0% <150m; Rain: none; Frost: none; Snow: none		RV
27/11/2020	Vantage Point Survey	VP4	6:30 starting at 07:25	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
14/12/2020	Vantage Point Survey	VP3	6:30 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none	Light showers and F5 last 2 hours	RV
15/12/2020	Vantage Point Survey	VP2	1:00 starting at 10:34	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 150-500m% 150-500m; Rain: light showers; Frost: none; Snow: none		LD
15/12/2020	Vantage Point Survey	VP2	2:00 starting at 11:34	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 150-500m% 150-500m; Rain: light showers; Frost: none; Snow: none		LD
15/12/2020	Vantage Point Survey	VP2	2:00 starting at 14:04	Visibility: good; Wind speed and direction: strong breeze SE; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none		LD
15/12/2020	Vantage Point Survey	VP2	1:00 starting at 16:04	Visibility: good; Wind speed and direction: near gale SE; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none		LD
16/12/2020	Vantage Point Survey	VP4	6:30 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 150-500m; Rain: light showers; Frost: none; Snow: none	Rain at start and end of survey, otherwise dry.	RV
19/12/2020	Vantage Point Survey	VP1	3:00 starting at 10:35	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: <150m% <150m; Rain: heavy showers; Frost: none; Snow: none	A wet and windy day. Regular showers and misty on the higher hills. Very quiet, although there were regular Raven's in flight around their roost. Also saw a Buzzard hunting away in the distance on two occasions. See Target tab and map for location.	LD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
19/12/2020	Vantage Point Survey	VP1	2:00 starting at 14:05	Visibility: good; Wind speed and direction: near gale S; Cloud cover and height: <150m% <150m; Rain: heavy showers; Frost: none; Snow: none	A wet and windy day. Regular showers and misty on the higher hills. Very quiet, although there were regular Raven's in flight around their roost. Also saw a Buzzard hunting away in the distance on two occasions. See Target tab and map for location.	LD
19/12/2020	Vantage Point Survey	VP1	1:00 starting at 16:05	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: <150m% <150m; Rain: heavy showers; Frost: none; Snow: none	A wet and windy day. Regular showers and misty on the higher hills. Very quiet, although there were regular Raven's in flight around their roost. Also saw a Buzzard hunting away in the distance on two occasions. See Target tab and map for location.	LD
11/01/2021	Vantage Point Survey	VP1	6:30 starting at 07:50	Visibility: poor; Wind speed and direction: fresh breeze WEST; Cloud cover and height: 0% 150-500m; Rain: light showers; Frost: none; Snow: none		RV
13/01/2021	Vantage Point Survey	VP3	6:30 starting at 07:50	Visibility: limited; Wind speed and direction: gentle breeze S-SW; Cloud cover and height: 150-500m; Rain: light showers; Frost: none; Snow: none		RV
15/01/2021	Vantage Point Survey	VP2	6:30 starting at 07:45	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
17/01/2021	Vantage Point Survey	VP4	6:30 starting at 07:40	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
04/02/2021	Vantage Point Survey	VP2	6:30 starting at 11:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: <150m; Rain: none; Frost: none; Snow: none		RV
06/02/2021	Vantage Point Survey	VP1	6:30 starting at 11:50	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
19/02/2021	Vantage Point Survey	VP3	6:30 starting at 12:15	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV



Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
21/02/2021	Vantage Point Survey	VP4	6:30 starting at 12:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
06/03/2021	Vantage Point Survey	VP1	6:30 starting at 06:10	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 50% >500m; Rain: none; Frost: none; Snow: none		RV
08/03/2021	Vantage Point Survey	VP2	6:30 starting at 06:05	Visibility: poor; Wind speed and direction: moderate breeze S; Cloud cover and height: 100% 150-500m; Rain: none; Frost: none; Snow: none	Thick fog and light drizzle at times	RV
10/03/2021	Vantage Point Survey	VP4	6:30 starting at 06:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 100% 150-500m; Rain: drizzle; Frost: none; Snow: none	mostly dry, but some brief heavy showers	RV
18/03/2021	Vantage Point Survey	VP3	6:30 starting at 05:40	Visibility: moderate; Wind speed and direction: gentle breeze N-NW; Cloud cover and height: 100% 150-500m; Rain: none; Frost: none; Snow: none	Cold, damp fog but no rain to 08:30	RV

Table 2 Winter Walkover Survey Effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/10/2020	Winter Walkover Survey	T1	1:31 starting at 11:49	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0% <150m; Rain: none; Frost: none; Snow: none		RV
22/10/2020	Winter Walkover Survey	T2	1:49 starting at 13:59	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0% <150m; Rain: none; Frost: none; Snow: none		RV
23/10/2020	Winter Walkover Survey	T3	2:36 starting at 09:21	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
30/10/2020	Winter Walkover Survey	T4	1:36 starting at 09:18	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
30/10/2020	Winter Walkover Survey	T5	1:25 starting at 11:57	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
06/01/2021	Winter Walkover Survey	T1	2:03 starting at 09:21	Visibility: good; Wind speed and direction: light breeze S-SW; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: none		RV
06/01/2021	Winter Walkover Survey	T2	1:44 starting at 12:19	Visibility: good; Wind speed and direction: light breeze S-SW; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: none		RV
08/01/2021	Winter Walkover Survey	T3	3:20 starting at 09:19	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: on ground		RV
08/01/2021	Winter Walkover Survey	T4	1:13 starting at 13:14	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: on ground		RV
17/01/2021	Winter Walkover Survey	T5	1:31 starting at 14:49	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 150-500m; Rain: light showers; Frost: light; Snow: none		RV
15/02/2021	Winter Walkover Survey	T1	1:55 starting at 09:44	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 150-500m; Rain: none; Frost: none; Snow: none		RV
15/02/2021	Winter Walkover Survey	T2	1:34 starting at 12:12	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
15/02/2021	Winter Walkover Survey	T4	1:11 starting at 14:08	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
28/02/2021	Winter Walkover Survey	T4	2:44 starting at 08:55	Visibility: good; Wind speed and direction: light air S; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
28/02/2021	Winter Walkover Survey	T5	1:44 starting at 12:39	Visibility: good; Wind speed and direction: light air S; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV



Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
06/03/2021	Winter Walkover Survey	T1	1:11 starting at 15:23	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33% >500m; Rain: none; Frost: none; Snow: none		RV
17/03/2021	Winter Walkover Survey	T2	1:31 starting at 12:53	Visibility: good; Wind speed and direction: light breeze N-NW; Cloud cover and height: 75% 150-500m; Rain: none; Frost: none; Snow: none		RV
17/03/2021	Winter Walkover Survey	T3	1:54 starting at 14:55	Visibility: good; Wind speed and direction: light breeze N-NW; Cloud cover and height: 100% 150-500m; Rain: none; Frost: none; Snow: none		RV
18/03/2021	Winter Walkover Survey	T4	2:34 starting at 12:38	Visibility: good; Wind speed and direction: gentle breeze N-NW; Cloud cover and height: 100% >500m; Rain: none; Frost: none; Snow: none		RV
19/03/2021	Winter Walkover Survey	T5	1:44 starting at 14:59	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 100% >500m; Rain: none; Frost: none; Snow: none		RV

Table 3 Hen Harrier Roost Survey Effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/10/2020	Hen Harrier Roost Survey	HHVP5	3:00 starting at 17:15	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
15/10/2020	Hen Harrier Roost Survey	HHVP3	2:40 starting at 16:30	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
22/10/2020	Hen Harrier Roost Survey	HHVP2	2:10 starting at 17:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0% 150-500m; Rain: none; Frost: none; Snow: none		RV
30/10/2020	Hen Harrier Roost Survey	HHVP4	2:20 starting at 06:40	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
19/11/2020	Hen Harrier Roost Survey	HHVP4	1:00 starting at 14:34	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A cold and very quiet evening, with winds increasing from the north-west. Very little bird activity, and no Hen Harrier's seen this evening.	LD
19/11/2020	Hen Harrier Roost Survey	HHVP4	1:22 starting at 15:34	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A cold and very quiet evening, with winds increasing from the north-west. Very little bird activity, and no Hen Harrier's seen this evening.	LD
25/11/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 14:37	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 150-500m% 150-500m; Rain: light showers; Frost: none; Snow: none	A fresh to strong breeze from the west, with occasional light rain or showers. Very quiet, and no Hen Harrier's observed this evening.	LD
25/11/2020	Hen Harrier Roost Survey	HHVP5	1:18 starting at 15:37	Visibility: good; Wind speed and direction: near gale NW; Cloud cover and height: 150-500m% 150-500m; Rain: light showers; Frost: none; Snow: none	A fresh to strong breeze from the west, with occasional light rain or showers. Very quiet, and no Hen Harrier's observed this evening.	LD
26/11/2020	Hen Harrier Roost Survey	HHVP2	2:15 starting at 15:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV
27/11/2020	Hen Harrier Roost Survey	HHVP3	2:00 starting at 15:15	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
14/12/2020	Hen Harrier Roost Survey	HHVP4	2:35 starting at 07:45	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none	Sky clear at start	RV
15/12/2020	Hen Harrier Roost Survey	HHVP3	1:00 starting at 08:00	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A calm and quiet morning, but I did hear a Buzzard calling from the edge of forestry and scrub, then seen flying over farmland. See map for location.	LD
15/12/2020	Hen Harrier Roost Survey	HHVP3	1:20 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 150-500m% 150-500m; Rain: none; Frost: none; Snow: none	A calm and quiet morning, but I did hear a Buzzard calling from the edge of forestry and scrub, then seen flying over farmland. See map for location.	LD
16/12/2020	Hen Harrier Roost Survey	HHVP5	2:25 starting at 07:45	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 150-500m; Rain: light showers; Frost: none; Snow: none	Heavy rain for a period during survey around sunrise	RV
19/12/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 08:18	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 150-500m% 150-500m; Rain: heavy showers; Frost: none; Snow: none	A fresh breeze with some heavy showers. Very quiet this morning, and no Hen Harrier's seen on site.	LD
19/12/2020	Hen Harrier Roost Survey	HHVP2	1:10 starting at 09:18	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 150-500m% 150-500m; Rain: heavy showers; Frost: none; Snow: none	A fresh breeze with some heavy showers. Very quiet this morning, and no Hen Harrier's seen on site.	LD
06/01/2021	Hen Harrier Roost Survey	HHVP3	2:20 starting at 15:00	Visibility: good; Wind speed and direction: light air SW; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: on ground		RV
08/01/2021	Hen Harrier Roost Survey	HHVP2	2:00 starting at 15:20	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: >500m; Rain: none; Frost: light; Snow: on ground		RV
11/01/2021	Hen Harrier Roost Survey	HHVP4	2:05 starting at 15:20	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 150-500m; Rain: drizzle; Frost: none; Snow: none		RV
15/01/2021	Hen Harrier Roost Survey	HHVP5	2:00 starting at 15:30	Visibility: good; Wind speed and direction: moderate breeze S-SE; Cloud cover and height: 150-500m; Rain: none; Frost: none; Snow: none		RV
04/02/2021	Hen Harrier Roost Survey	HHVP2	2:10 starting at 07:20	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 150-500m; Rain: none; Frost: none; Snow: none		RV
06/02/2021	Hen Harrier Roost Survey	HHVP3	2:15 starting at 07:15	Visibility: good; Wind speed and direction: gentle breeze E-NE; Cloud cover and height: 150-500m; Rain: none; Frost: none; Snow: none		RV



Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
15/02/2021	Hen Harrier Roost Survey	HHVP4	2:25 starting at 06:55	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 150-500m; Rain: none; Frost: none; Snow: none		RV
28/02/2021	Hen Harrier Roost Survey	HHVP5	2:00 starting at 06:25	Visibility: good; Wind speed and direction: light air S; Cloud cover and height: >500m; Rain: none; Frost: none; Snow: none		RV
06/03/2021	Hen Harrier Roost Survey	HHVP2	2:00 starting at 17:20	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 50% >500m; Rain: none; Frost: none; Snow: none		RV
08/03/2021	Hen Harrier Roost Survey	HHVP3	2:00 starting at 17:20	Visibility: good; Wind speed and direction: moderate breeze E-NE; Cloud cover and height: 100% 150-500m; Rain: none; Frost: none; Snow: none		RV
17/03/2021	Hen Harrier Roost Survey	HHVP4	2:00 starting at 17:35	Visibility: good; Wind speed and direction: light breeze N-NW; Cloud cover and height: 100% 150-500m; Rain: light showers; Frost: none; Snow: none		RV
19/03/2021	Hen Harrier Roost Survey	HHVP5	2:00 starting at 17:40	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		RV

Table 4 Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ117	4	21/10/2020	14:55	Buzzard	1	63		8	55		conifer plantation and improved agricultural grassland; flying then circling	RV
SH024	3	23/10/2020	13:21	Sparrowhawk	1	16		16			conifer plantation; flying, female flew low over plantation	RV
GK001	3	25/11/2020	09:38	Greenshank	1						wet grassland, dry siliceous heath and lakes and ponds; calling, probable greenshank heard calling from a fair way off, higher up on moor above the vp above lough, with freshwater pools and bog on the level ground. heard a few times, with occasional short, busts of song, but the bird was not seen or heard at close quarters.	L. DARK
GK002	3	25/11/2020	10:11	Greenshank	2						wet grassland, dry siliceous heath and lakes and ponds; calling, probable greenshank heard calling from a fair way off, higher up on moor above the vp above lough, with freshwater pools and bog on the level ground. heard a few times, with occasional short, busts of song, but the bird was not seen or heard at close quarters.	L. DARK
GB002	3	25/11/2020	10:44	Great Black-backed Gull	3	48		48			lakes and ponds and improved agricultural grassland; travelling , great black backed gull seen travelling over/on the edge of lough...	L. DARK
GK003	3	25/11/2020	12:10	Greenshank	4						wet grassland, dry siliceous heath and lakes and ponds; calling, probable greenshank heard calling from a fair way off, higher up on moor above the vp above lough, with freshwater pools and bog on the level ground. heard a few times, with occasional short, busts of song, but the bird was not seen or heard at close quarters.	L. DARK
BZ118	4	27/11/2020	08:13	Buzzard							present	RV
SH025		27/11/2020	08:20	Sparrowhawk	1	10	10				present	RV
BZ119	4	27/11/2020	09:42	Buzzard	1	25		5	20		present	RV

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
BZ120	4	27/11/2020	11:07	Buzzard	1	125		25	100		present	RV
HH121	3	14/12/2020	14:41	Hen Harrier	1	35	35				present	RV
HH122	3	14/12/2020	15:14	Hen Harrier	2	47	40	7			present	RV
BZ121	2	15/12/2020	11:16	Buzzard	1	47					conifer plantation, wet grassland and scrub; hunting and travelling, a buzzard was seen hunting over farmland fields way off in the distance over farmland fields and forestry, before flying out of view. see map for location.	L. DARK
BZ122	4	16/12/2020	11:23	Buzzard	1	16		16			present	RV
BZ123	4	16/12/2020	11:55	Buzzard	2	11		11			present	RV
SH026	4	16/12/2020	13:45	Sparrowhawk	3	7	7				present	RV
SH027	4	16/12/2020	15:56	Sparrowhawk	4	8	8				present	RV
BZ124	4	16/12/2020	16:07	Buzzard	5	15		15			present	RV
BZ125	1	19/12/2020	11:41	Buzzard	1	74	4	70			wet grassland, improved agricultural grassland and scrub; hunting, a buzzard was seen hunting away in the distance on two occasions over farmland field and grassland, before dropping out of view into scrub.	L. DARK
BZ126	1	19/12/2020	11:53	Buzzard	2	25	20	5			wet grassland, improved agricultural grassland and scrub; travelling, the bird was seen shortly after, travelling over the fields and out of view again.	L. DARK
SH028	2	15/01/2021	09:23	Sparrowhawk	1	64		30	34		freshwater; circling, displaying, circling and displaying over plantation	RV
BZ127	2	15/01/2021	09:36	Buzzard	2	146		25	121		present	RV
HH123	2	15/01/2021	10:56	Hen Harrier	3	12	12				present	RV
HH124	2	15/01/2021	11:21	Hen Harrier	4	18	18				present	RV
BZ128	4	17/01/2021	09:28	Buzzard	1	178	-	45	133		present	RV
HH125	4	17/01/2021	09:52	Hen Harrier	2	18	18				present	RV
BZ129	4	17/01/2021	12:28	Buzzard	3	21	-	21			present	RV
SN017	VP2	04/02/2021	15:10	Snipe	-	-	-	-	-	-	upland blanket bog; flushed	RV

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
GP015	VP2	04/02/2021	11:10	Golden Plover	10	0	0	0	0	0	upland blanket bog; flushed by tractor at 11:10 behind vp, hard to follow due to fog, approx 10 seen, but more heard. flight details not recorded	RV
ML003	VP3	19/02/2021	14:36	Merlin	-	-	-	-	-	0	lowland blanket bog; flying	RV
RG050	VP3	19/02/2021	13:22	Red Grouse	2	-	-	-	-	-	upland blanket bog; pair, male singing	RV
SN018	VP3	19/02/2021	17:55	Snipe	-	-	-	-	-	-	upland blanket bog; flew over after sunset	RV
SN019	VP3	19/02/2021	17:55	Snipe	1	-	-	-	-	-	upland blanket bog; flew over after sunset, flight details not recorded	RV
SN020	VP3	19/02/2021	17:55	Snipe	1	-	-	-	-	-	upland blanket bog; flew over after sunset, flight details not recorded	RV
SN021	VP3	19/02/2021	17:55	Snipe	1	-	-	-	-	-	upland blanket bog; flew over after sunset, flight details not recorded	RV
BZ130	VP4	21/02/2021	14:41	Buzzard	-	-	-	-	-	0	conifer plantation and improved agricultural grassland; displaying	RV
WK006	VP4	21/02/2021	18:29	Woodcock	1						upland blanket bog; seen flying to south, first at 18:29, flight details not recorded	RV
WK007	VP4	21/02/2021	18:29	Woodcock	1						upland blanket bog; seen flying to south, first at 18:29, flight details not recorded	RV
WK008	VP4	21/02/2021	18:29	Woodcock	1						upland blanket bog; seen flying to south, first at 18:29, flight details not recorded	RV
WK009	VP4	21/02/2021	18:29	Woodcock	1						upland blanket bog; seen flying to south, first at 18:29, flight details not recorded	RV
BZ131	VP1	06/03/2021	10:13	Buzzard	1	93			93		conifer plantation and improved agricultural grassland; circling/displaying, circled and called, i spotted a second bird recorded below in a tree while watching this bird	RV
SH029	VP1	06/03/2021	08:47	Sparrowhawk	1	72			72		conifer plantation; circling/displaying, slowly circling over plantation and drifted out of few.	RV
BZ132	VP1	06/03/2021	10:14	Buzzard	1	85		20	65		conifer plantation and improved agricultural grassland; perching/circling, spotted in a dead tree, almost immediately began circling with bird above, both disappeared into plantation.	RV

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-10m)	Band 2 (10-25m)	Band 3 (25-175m)	Band 4 (>175m)	Habitat and activity	Surveyor
SN022	VP1	06/03/2021	06:38	Snipe	-	-	-	-	-	0	upland blanket bog; flying, flew over my head as it was beginning to get bright.	RV
BZ133	VP4	10/03/2021	10:02	Buzzard	2	65		15	50		scrub and improved agricultural grassland; circling, 2 circling over area i was told that a sheep carcass had been left by local farmer. both landed on ground out of view.	RV
BZ134	VP4	10/03/2021	11:47	Buzzard	2	93		15	78		scrub and improved agricultural grassland; circling, 2 circling, one dropped back to ground after 15 seconds, second bird circled and moved north.	RV
BZ135	VP4	10/03/2021	12:21	Buzzard	1	10		10			scrub and improved agricultural grassland; flying, flew away from carcass, disappeared in the same area as first bird.	RV
BZ136	VP3	18/03/2021	08:28	Buzzard	1	-	-	-	-	-	conifer plantation; calling, calling bird as fog cleared.	RV
SH030	VP3	18/03/2021	10:27	Sparrowhawk	1	27		27			conifer plantation; circling/gliding, circled and then glided away	RV
RG051	VP3	18/03/2021	06:27	Red Grouse	1	-	-	-	-	-	upland blanket bog; calling, male calling in thick fog above vp, last heard at 08:25 as fog cleared.	RV

Table 5 Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
MP001	22/10/2020	09:05		Meadow Pipit	23	raised bog, conifer plantation and scrub/transitional woodland; migrants and feeding flocks, 11:49-13:20 (wintering)	RV
RE001	22/10/2020			Redwing	4	improved agricultural grassland and conifer plantation; flyovers (wintering)	RV
HH003	22/10/2020	12:45		Hen Harrier	1	improved agricultural grassland, eroding blanket bog and conifer plantation; flying, flew south, mapped (wintering)	RV
SN011	22/10/2020			Snipe	3	upland blanket bog; flushed, flushed on mountain top (wintering)	RV
RE002	22/10/2020			Redwing	20	conifer plantation; migrants, flyovers, probably more (wintering)	RV
MP002	22/10/2020			Meadow Pipit	12	improved agricultural grassland; feeding and migrants (wintering)	RV
RE003	23/10/2020			Redwing	50	mixed broadleaved/conifer woodland and conifer plantation; flyovers, dozens flying over early on (wintering)	RV
MP003	23/10/2020			Meadow Pipit	30	upland blanket bog; flying, flyovers and flushed (wintering)	RV
SN012	23/10/2020			Snipe	3	upland blanket bog; flying, flyovers, not flushed (wintering)	RV
RE004	30/10/2020			Redwing	17	scrub; flyovers (wintering)	RV
MP004	30/10/2020			Meadow Pipit	27	upland blanket bog; flyovers (wintering)	RV
HH004	30/10/2020	10:22		Hen Harrier	1	upland blanket bog; flushed, flushed from depression and flew east (wintering)	RV
RG001	30/10/2020			Red Grouse		upland blanket bog; latrine, latrine close to plantation edge (wintering)	RV
SH001	30/10/2020			Sparrowhawk	1	upland blanket bog and conifer plantation; flying, flew east (wintering)	RV
RE005	30/10/2020			Redwing	37	conifer plantation; flyovers, 12 singles and flock of 25+ (wintering)	RV
MP005	30/10/2020			Meadow Pipit	3	scrub; feeding, along roadside (wintering)	RV
RE006	06/01/2021			Redwing	1	freshwater; flying, flyover (wintering)	RV
SH002	06/01/2021			Sparrowhawk	1	freshwater; displaying, heard calling and seen circling with slow motion wing beats. (wintering)	RV
MP006	06/01/2021			Meadow Pipit	3	present	RV
WK005	06/01/2021			Woodcock	1	freshwater; flying, flushed from side of path (wintering)	RV
MP007	06/01/2021			Meadow Pipit	5	present	RV
SN013	06/01/2021			Snipe	1	present	RV
SH003	08/01/2021			Sparrowhawk	1	present	RV
MP008	08/01/2021			Meadow Pipit	3	present	RV
SN014	08/01/2021			Snipe	1	present	RV

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
WK006	08/01/2021			Woodcock	4	freshwater; tracks of 4 individuals in snow, 1 crossed between walk up and back to car (wintering)	RV
MP009	08/01/2021			Meadow Pipit	2	present	RV
WK007	08/01/2021			Woodcock	1	freshwater; , 1 set of tracks in snow (wintering)	RV
RE007	17/01/2021			Redwing	2	present	RV
MP010	17/01/2021			Meadow Pipit	2	present	RV
SN015	17/01/2021			Snipe	2	present	RV
WK008	15/02/2021			Woodcock	1	scrub and mixed broadleaved/conifer woodland; flushed (wintering)	RV
BZ005	15/02/2021			Buzzard	1	mixed broadleaved/conifer woodland and conifer plantation; displaying and calling (wintering)	RV
SN016	28/02/2021			Snipe	1	upland blanket bog; flushed (wintering)	RV
SN017	28/02/2021			Snipe	2	upland blanket bog; flushed (wintering)	RV
RG002	28/02/2021			Red Grouse	1	upland blanket bog; displaying and latrine found separately (wintering)	RV
BZ006	28/02/2021			Buzzard	1	mixed broadleaved/conifer woodland; heard calling several times (wintering)	RV
RG003	28/02/2021			Red Grouse	1	upland blanket bog; latrine found (wintering)	RV
JS001	28/02/2021			Jack Snipe	1	cutover bog; flushed , feathers gathered (wintering)	RV
BZ007	06/03/2021	15:23		Buzzard	2	improved agricultural grassland, conifer plantation and scrub; displaying, pair in roadside trees, 1 got up and circled calling in alarm as i passed and began transect 1. (wintering)	RV
EA001	06/03/2021	15:55		Golden Eagle	1	conifer plantation; circling, 1 immature circling over plantation, gaining height before gliding south, last seen 16:03 (wintering)	RV
BZ008	17/03/2021	12:53		Buzzard	2	improved agricultural grassland and conifer plantation; circling, 2 adults, 1 quickly disappeared over plantation, second circled for 108 s. (wintering)	RV
SN018	18/03/2021	14:03		Snipe	1	upland blanket bog; flushed, flushed from ditch (wintering)	RV
SN019	18/03/2021	14:14		Snipe	1	upland blanket bog; flushed, flushed from ditch (wintering)	RV
RG004	19/03/2021			Red Grouse		upland blanket bog; , some feathers found (wintering)	RV
SN020	19/03/2021	16:20		Snipe	1	upland blanket bog; flushed, flushed from wet patch (wintering)	RV
RG005	19/03/2021			Red Grouse		upland blanket bog; , fresh latrine found (wintering)	RV

Table 6 Hen Harrier Roost Survey Data

Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH004	3	15/10/2020	18:41	Hen Harrier	1	improved agricultural grassland, mixed broadleaved/conifer woodland and conifer plantation, flying, male flew low across site, was in and out of view, not sure if it was full or sub adult	RV
HH005	2	22/10/2020	17:53	Hen Harrier	1	improved agricultural grassland and conifer plantation, flying, female or immature flew low in front of plantation	RV

Table 7 Incidental Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Survey or
KESTREL002	Hen Harrier Roost Survey; HHVP5_01	12/10/2020		Kestrel	1	present	RV
WHOOPEER SWAN001	Hen Harrier Roost Survey; HHVP5_02	12/10/2020		Whooper Swan	6	present	RV
BUZZARD009	Hen Harrier Roost Survey; HHVP3_01	15/10/2020		Buzzard	1	present	RV
SPARROWHAWK 005	Hen Harrier Roost Survey; HHVP3_02	15/10/2020		Sparrowhawk	1	present	RV
FOX005	Vantage Point Survey; Lissinagroagh	21/10/2020		Red Fox	1	present	RV
FOX006	Transect 4; Lissinagroagh	30/10/2020		Red Fox	1	present	RV
WOODCOCK012	Vantage Point Survey; Close to VP1	19/11/2020		Woodcock	2	present	LD
FOX007	Vantage Point Survey; Close to VP1	19/11/2020		Red Fox	1	present	LD
HARE008	Vantage Point Survey; Close to VP1	19/11/2020		Hare	1	present	LD
WOODCOCK013	Vantage Point Survey; Close to VP1	25/11/2020		Woodcock	1	present	LD
BUZZARD010	Hen Harrier Roost Survey;	26/11/2020		Buzzard	1	present	RV
HARE009	Hen Harrier Roost Survey; HHVP04	14/12/2020		Hare	2	present	RV
BUZZARD011	Hen Harrier Roost Survey;	15/12/2020		Buzzard	1	present	LD
BUZZARD012	Hen Harrier Roost Survey;	15/12/2020		Buzzard	1	present	LD
SPARROWHAWK 006	Hen Harrier Roost Survey;	16/12/2020		Sparrowhawk	1	present	RV
SPARROWHAWK 007	Hen Harrier Roost Survey; HHVP3	06/01/2021		Sparrowhawk	1	present	RV
BUZZARD013	Hen Harrier Roost Survey; HHVP2	08/01/2021		Buzzard	1	present	RV
FOX008	Transect 3; Lissinagroagh	08/01/2021		Red Fox	1	present	RV

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Survey or
FOX009	Transect 4; Lissinagroagh	08/01/2021		Red Fox	1	present	RV
FOX010	Vantage Point Survey; Lissinagroagh	15/01/2021		Red Fox	1	present	RV
HARE010	Vantage Point Survey; Lissinagroagh	17/01/2021		Hare	1	present	RV
SN037	Vantage Point Survey; VP1	06/02/2021	11:45	Snipe	-	upland blanket bog and conifer plantation; flushed	RV
SN038	Hen Harrier Roost Survey; HHRVP2	06/03/2021	19:00	Snipe	1	improved agricultural grassland; drumming, flew over in dark and drummed briefly	RV
WK014	Hen Harrier Roost Survey; HHRVP3	08/03/2021	18:51	Woodcock	2	improved agricultural grassland; flying, flew in together, 1 bird circled around me calling.	RV
SN039	Hen Harrier Roost Survey; HHRVP3	08/03/2021	17:56	Snipe	1	improved agricultural grassland; flying, flew in and dropped sharply into field by vp	RV
SH008	Hen Harrier Roost Survey; HHRVP4	17/03/2021	18:07	Sparrowhawk	1	scrub and conifer plantation; circling, male circling over edge of plantation	RV
WK015	Hen Harrier Roost Survey; HHRVP5	19/03/2021	19:17	Woodcock	1	improved agricultural grassland and scrub; flying, flew across in front of vp	RV

Table 8 Non-target Species

Date	Survey	Species	Notes	Surveyor
13/10/2020	Vantage Point Survey, 2	Raven	at least 70 flew south east past vp from 17:00, not sure if birds looped behind me or were different individuals.	RV
13/10/2020	Vantage Point Survey, 2	Meadow Pipit	feeding around vp	RV
13/10/2020	Vantage Point Survey, 2	Hooded Crow	flying below vp	RV
13/10/2020	Vantage Point Survey, 2	Golden Plover	heard but not seen behind vp, probably double figures based on calls.	RV
13/10/2020	Vantage Point Survey, 2	Magpie	flock moving below vp.	RV
13/10/2020	Vantage Point Survey, 2	Lesser Redpoll	flyovers	RV
13/10/2020	Vantage Point Survey, 2	Siskin	flyovers	RV
13/10/2020	Vantage Point Survey, 2	Wren	feeding around vp	RV
13/10/2020	Vantage Point Survey, 2	Woodpigeon	flying over view shed	RV
20/10/2020	Vantage Point Survey, 1	Raven	flying and perching around plantation	RV
20/10/2020	Vantage Point Survey, 1	Meadow Pipit	feeding around vp	RV
20/10/2020	Vantage Point Survey, 1	Snipe	flew east past vp, not flushed by me.	RV
20/10/2020	Vantage Point Survey, 1	Woodpigeon	flying in front of vp	RV
20/10/2020	Vantage Point Survey, 1	Hooded Crow	flying around vp	RV
20/10/2020	Vantage Point Survey, 1	Magpie	flying around vp	RV
20/10/2020	Vantage Point Survey, 1	Crossbill	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Jay	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Raven	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Hooded Crow	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Magpie	feeding around viewshed	RV
21/10/2020	Vantage Point Survey, 4	Lesser Redpoll	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Siskin	flyovers	RV
21/10/2020	Vantage Point Survey, 4	Robin	singing and feeding around vp	RV
21/10/2020	Vantage Point Survey, 4	Wren	singing and feeding around vp	RV
21/10/2020	Vantage Point Survey, 4	Long-tailed Tit	feeding around vp	RV
21/10/2020	Vantage Point Survey, 4	Blue Tit	feeding around vp	RV
21/10/2020	Vantage Point Survey, 4	Great Tit	feeding around vp	RV
21/10/2020	Vantage Point Survey, 4	Coal Tit		RV
21/10/2020	Vantage Point Survey, 4	Pied Wagtail	10 flew east over vp into plantation at 18:01	RV
21/10/2020	Breeding Walkover Survey, VP4	Great Spotted Woodpecker		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Raven		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Hooded Crow		RV

Date	Survey	Species	Notes	Surveyor
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Magpie		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Fieldfare		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Song Thrush		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Robin		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Wren		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Long-tailed Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Chaffinch		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Raven		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Hooded Crow		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Jay		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Magpie		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Fieldfare		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Song Thrush		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Robin		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Wren		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Long-tailed Tit	3 separate flocks	RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Chaffinch		RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Bullfinch	2 pairs	RV
22/10/2020	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
23/10/2020	Vantage Point Survey, 3	Raven	singles and pairs regularly passing by.	RV
23/10/2020	Vantage Point Survey, 3	Hooded Crow		RV
23/10/2020	Vantage Point Survey, 3	Magpie		RV
23/10/2020	Vantage Point Survey, 3	Jay	flying over plantation	RV

Date	Survey	Species	Notes	Surveyor
23/10/2020	Vantage Point Survey, 3	Crossbill	flyovers	RV
23/10/2020	Vantage Point Survey, 3	Siskin	flyovers	RV
23/10/2020	Vantage Point Survey, 3	Lesser Redpoll	flyovers	RV
23/10/2020	Vantage Point Survey, 3	Coal Tit	feeding along plantation edge	RV
23/10/2020	Vantage Point Survey, 3	Goldcrest	with above coat tits	RV
23/10/2020	Vantage Point Survey, 3	Fieldfare	at least 75 flew south over hilltop in one flock	RV
23/10/2020	Vantage Point Survey, 3	Redwing	at least 20 flew south in singles and small flocks	RV
23/10/2020	Vantage Point Survey, 3	Song Thrush	feeding along roadside	RV
23/10/2020	Vantage Point Survey, 3	Blackbird	feeding along roadside	RV
23/10/2020	Vantage Point Survey, 3	Robin	feeding along roadside and singing	RV
23/10/2020	Vantage Point Survey, 3	Pied Wagtail	male feeding on road	RV
23/10/2020	Vantage Point Survey, 3	Wren	feeding and singing around vp	RV
23/10/2020	Vantage Point Survey, 3	Bullfinch	pair feeding around vp on and off	RV
23/10/2020	Vantage Point Survey, 3	Reed Bunting	flyover	RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Raven		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Jay		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Hooded Crow		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Magpie		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Fieldfare	3 early on, then flock of 60+ near end of transect	RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Song Thrush		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Long-tailed Tit	1 flock	RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Robin		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Wren		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Bullfinch	2 pairs	RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Chaffinch		RV
23/10/2020	Winter Walkover Survey, 500m Survey Radius	Siskin		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Raven	09:18-10:54	RV

Date	Survey	Species	Notes	Surveyor
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Hooded Crow		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Magpie		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Robin		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Wren		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Song Thrush		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Fieldfare		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Bullfinch		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Chaffinch		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Siskin		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Long-tailed Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Crossbill		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Lesser Redpoll		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Raven	11:57-13:22	RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Hooded Crow		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Magpie		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Robin		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Wren		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Song Thrush		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Fieldfare	1 large flock	RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Siskin		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Chaffinch		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
30/10/2020	Winter Walkover Survey, 500m Survey Radius	Lesser Redpoll		RV
19/11/2020	Vantage Point Survey, 1	Robin		L. DARK

Date	Survey	Species	Notes	Surveyor
19/11/2020	Vantage Point Survey, 1	Wren		L. DARK
19/11/2020	Vantage Point Survey, 1	Coal Tit		L. DARK
19/11/2020	Vantage Point Survey, 1	Meadow Pipit		L. DARK
19/11/2020	Vantage Point Survey, 1	Meadow Pipit		L. DARK
19/11/2020	Vantage Point Survey, 1	Dunnock		L. DARK
19/11/2020	Vantage Point Survey, 1	Jay		L. DARK
19/11/2020	Vantage Point Survey, 1	Woodpigeon		L. DARK
19/11/2020	Vantage Point Survey, 1	Lesser Redpoll		L. DARK
19/11/2020	Vantage Point Survey, 1	Chaffinch		L. DARK
19/11/2020	Vantage Point Survey, 1	Magpie		L. DARK
19/11/2020	Vantage Point Survey, 1	Jackdaw		L. DARK
19/11/2020	Vantage Point Survey, 1	Raven	multiple raven's flying out from their roost to the west in the nearby conifers. most numerous species here today.	L. DARK
25/11/2020	Vantage Point Survey, 3	Robin		L. DARK
25/11/2020	Vantage Point Survey, 3	Meadow Pipit		L. DARK
25/11/2020	Vantage Point Survey, 3	Wren		L. DARK
25/11/2020	Vantage Point Survey, 3	Chaffinch		L. DARK
25/11/2020	Vantage Point Survey, 3	Hooded Crow		L. DARK
25/11/2020	Vantage Point Survey, 3	Reed Bunting		L. DARK
25/11/2020	Vantage Point Survey, 3	Chaffinch		L. DARK
25/11/2020	Vantage Point Survey, 3	Lesser Redpoll		L. DARK
25/11/2020	Vantage Point Survey, 3	Magpie		L. DARK
25/11/2020	Vantage Point Survey, 3	Mistle Thrush		L. DARK
25/11/2020	Vantage Point Survey, 3	Raven	pair of raven's in flight, 50m south of the vp. passing back and forth.	L. DARK
26/11/2020	Vantage Point Survey, 2	Raven	flying around vp	RV
26/11/2020	Vantage Point Survey, 2	Hooded Crow	flying below vp	RV
26/11/2020	Vantage Point Survey, 2	Magpie	flying below vp	RV
26/11/2020	Vantage Point Survey, 2	Jay	flying below vp	RV
26/11/2020	Vantage Point Survey, 2	Meadow Pipit	feeding around vp	RV
26/11/2020	Vantage Point Survey, 2	Snipe	flew overcalling at 07:42	RV
26/11/2020	Vantage Point Survey, 2	Wren	calling around vp	RV
26/11/2020	Vantage Point Survey, 2	Woodpigeon	flying below vp	RV
26/11/2020	Vantage Point Survey, 2	Mistle Thrush	feeding below vp	RV
27/11/2020	Vantage Point Survey, 4	Raven	flying around vp	RV
27/11/2020	Vantage Point Survey, 4	Jay	feeding around vp	RV



Date	Survey	Species	Notes	Surveyor
27/11/2020	Vantage Point Survey, 4	Magpie	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Hooded Crow	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Chaffinch	flyovers	RV
27/11/2020	Vantage Point Survey, 4	Robin	feeding and calling by vp	RV
27/11/2020	Vantage Point Survey, 4	Siskin	flyovers	RV
27/11/2020	Vantage Point Survey, 4	Lesser Redpoll	flyovers	RV
27/11/2020	Vantage Point Survey, 4	Wren	calling and singing by vp	RV
27/11/2020	Vantage Point Survey, 4	#N/A	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Mistle Thrush	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Fieldfare	flyovers	RV
27/11/2020	Vantage Point Survey, 4	Song Thrush	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Blue Tit	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Long-tailed Tit	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Coal Tit	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Goldcrest	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Bullfinch	pair	RV
27/11/2020	Vantage Point Survey, 4	Meadow Pipit	feeding around vp	RV
27/11/2020	Vantage Point Survey, 4	Dunnock	feeding and calling by vp	RV
14/12/2020	Vantage Point Survey, 3	Raven		RV
14/12/2020	Vantage Point Survey, 3	Meadow Pipit		RV
14/12/2020	Vantage Point Survey, 3	Hooded Crow		RV
14/12/2020	Vantage Point Survey, 3	Magpie		RV
14/12/2020	Vantage Point Survey, 3	Fieldfare	flyovers	RV
14/12/2020	Vantage Point Survey, 3	Blackbird	1 singing	RV
14/12/2020	Vantage Point Survey, 3	Song Thrush	singing	RV
14/12/2020	Vantage Point Survey, 3	Wren		RV
14/12/2020	Vantage Point Survey, 3	Robin		RV
14/12/2020	Vantage Point Survey, 3	Siskin	flyovers	RV
14/12/2020	Vantage Point Survey, 3	Coal Tit	feeding around vp	RV
14/12/2020	Vantage Point Survey, 3	Goldcrest	feeding around vp	RV
15/12/2020	Vantage Point Survey, 2	Wren		L. DARK
15/12/2020	Vantage Point Survey, 2	Meadow Pipit		L. DARK
15/12/2020	Vantage Point Survey, 2	Great Tit		L. DARK
15/12/2020	Vantage Point Survey, 2	Hooded Crow		L. DARK
15/12/2020	Vantage Point Survey, 2	Coal Tit		L. DARK
15/12/2020	Vantage Point Survey, 2	Lesser Redpoll		L. DARK

Date	Survey	Species	Notes	Surveyor
15/12/2020	Vantage Point Survey, 2	Chaffinch		L. DARK
15/12/2020	Vantage Point Survey, 2	Mistle Thrush		L. DARK
15/12/2020	Vantage Point Survey, 2	Robin		L. DARK
15/12/2020	Vantage Point Survey, 2	Siskin		L. DARK
15/12/2020	Vantage Point Survey, 2	Raven	multiple birds flying in and out of their roost.	L. DARK
16/12/2020	Vantage Point Survey, 4	Jay		RV
16/12/2020	Vantage Point Survey, 4	Hooded Crow		RV
16/12/2020	Vantage Point Survey, 4	Magpie		RV
16/12/2020	Vantage Point Survey, 4	Raven		RV
16/12/2020	Vantage Point Survey, 4	Blackbird		RV
16/12/2020	Vantage Point Survey, 4	Redwing	flyovers	RV
16/12/2020	Vantage Point Survey, 4	Mistle Thrush		RV
16/12/2020	Vantage Point Survey, 4	Song Thrush		RV
16/12/2020	Vantage Point Survey, 4	Fieldfare	flyover	RV
16/12/2020	Vantage Point Survey, 4	Duncock		RV
16/12/2020	Vantage Point Survey, 4	Robin		RV
16/12/2020	Vantage Point Survey, 4	Wren		RV
16/12/2020	Vantage Point Survey, 4	Goldcrest	feeding around vp	RV
16/12/2020	Vantage Point Survey, 4	Blue Tit		RV
16/12/2020	Vantage Point Survey, 4	Great Tit		RV
16/12/2020	Vantage Point Survey, 4	Coal Tit		RV
16/12/2020	Vantage Point Survey, 4	Meadow Pipit		RV
16/12/2020	Vantage Point Survey, 4	Siskin	flyovers	RV
16/12/2020	Vantage Point Survey, 4	Chaffinch		RV
19/12/2020	Vantage Point Survey, 1	Wren		L. DARK
19/12/2020	Vantage Point Survey, 1	Robin		L. DARK
19/12/2020	Vantage Point Survey, 1	Coal Tit		L. DARK
19/12/2020	Vantage Point Survey, 1	Meadow Pipit		L. DARK
19/12/2020	Vantage Point Survey, 1	Hooded Crow		L. DARK
19/12/2020	Vantage Point Survey, 1	Siskin		L. DARK
19/12/2020	Vantage Point Survey, 1	Mistle Thrush		L. DARK
19/12/2020	Vantage Point Survey, 1	Blue Tit		L. DARK
19/12/2020	Vantage Point Survey, 1	Magpie		L. DARK
19/12/2020	Vantage Point Survey, 1	Jackdaw		L. DARK
19/12/2020	Vantage Point Survey, 1	Raven	regular raven's in flight around their roost.	L. DARK

Date	Survey	Species	Notes	Surveyor
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Raven	several seen, 4 was the highest single count.	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Jay	heard on 3 occasions, not seen	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Hooded Crow	flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Magpie	flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush	feeding along edge of plantation	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Song Thrush	mostly flushed along path side, 1 singing	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Blackbird	flushed along path side brambles	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Coal Tit	several pairs and small flocks	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Blue Tit	mixed flocks	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Great Tit	mixed flocks	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Long-tailed Tit	1 flock	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Goldcrest	mixed flocks	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Robin		RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Wren	several heard	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Dunnock	feeding and calling, mostly singles.	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Chaffinch	mostly flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Lesser Redpoll	flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Raven	high count, probably more passing over	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Jay	flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Hooded Crow	feeding in sheep field	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Magpie	feeding in sheep field	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush	feeding in sheep field	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Song Thrush	flushed along path side brambles	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Blackbird	flushed along path side	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Blue Tit		RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Great Tit	mixed flock with above	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Goldcrest	mixed flocks	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Robin		RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Wren	some found on mountain top also	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Dunnock		RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Bullfinch	heard only	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Chaffinch	flyovers and small flock feeding roadside	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Siskin	flyovers	RV
06/01/2021	Winter Walkover Survey, 500m Survey Radius	Reed Bunting	flushed from forestry track	RV

Date	Survey	Species	Notes	Surveyor
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Raven	flyovers, lots of calling and displaying	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Jay	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Hooded Crow	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Magpie	flyover	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush	along forestry edge	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Song Thrush	singing	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Blackbird	track side	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Robin	feeding and singing along road	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Wren	feeding and calling all along route	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Dunnock	feeding and calling all along route	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Bullfinch	trio feeding on brambles	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Chaffinch	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Siskin	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Lesser Redpoll	feeding on stunted birches	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Raven	flyovers, lots of calling and displaying	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Jay	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Hooded Crow	flyover	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Magpie	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Blackbird		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Coal Tit		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Blue Tit	mixed flock with great and coat tits and goldcrest	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Great Tit		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Goldcrest		RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Robin	feeding and calling along the track	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Wren	feeding and singing	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Bullfinch	pair feeding	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Chaffinch	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Siskin	flyovers	RV
08/01/2021	Winter Walkover Survey, 500m Survey Radius	Lesser Redpoll	flyovers	RV
11/01/2021	Vantage Point Survey, 1	Raven	highest count, small numbers constantly flying around vp, 20+ flew from roost as i drove up to vp.	RV
11/01/2021	Vantage Point Survey, 1	Hooded Crow	highest count	RV

Date	Survey	Species	Notes	Surveyor
11/01/2021	Vantage Point Survey, 1	Magpie	highest count	RV
11/01/2021	Vantage Point Survey, 1	Woodpigeon		RV
11/01/2021	Vantage Point Survey, 1	Mistle Thrush	feeding around vp	RV
11/01/2021	Vantage Point Survey, 1	Meadow Pipit	feeding around vp	RV
13/01/2021	Vantage Point Survey, 3	Raven	high count	RV
13/01/2021	Vantage Point Survey, 3	Hooded Crow	2 flying across site regularly	RV
13/01/2021	Vantage Point Survey, 3	Magpie	flyover	RV
13/01/2021	Vantage Point Survey, 3	Mistle Thrush	flyovers	RV
13/01/2021	Vantage Point Survey, 3	Song Thrush	feeding along road side trees	RV
13/01/2021	Vantage Point Survey, 3	Coal Tit	feeding in plantation	RV
13/01/2021	Vantage Point Survey, 3	Chaffinch	flyovers	RV
13/01/2021	Vantage Point Survey, 3	Siskin	flyovers	RV
13/01/2021	Vantage Point Survey, 3	Lesser Redpoll	flyovers	RV
13/01/2021	Vantage Point Survey, 3	Goldcrest	feeding with coal tit	RV
15/01/2021	Vantage Point Survey, 2	Raven	probably more, count from birds leaving roost	RV
15/01/2021	Vantage Point Survey, 2	Hooded Crow	mostly flying below vp	RV
15/01/2021	Vantage Point Survey, 2	Magpie	feeding around sheep below vp	RV
15/01/2021	Vantage Point Survey, 2	Meadow Pipit	feeding along road by vp	RV
15/01/2021	Vantage Point Survey, 2	Woodpigeon	flying across site, some displaying	RV
15/01/2021	Vantage Point Survey, 2	Mistle Thrush	feeding by vp	RV
15/01/2021	Vantage Point Survey, 2	Fieldfare	feeding in sheep field below vp	RV
15/01/2021	Vantage Point Survey, 2	Red Grouse	female flushed beside vp	RV
15/01/2021	Vantage Point Survey, 2	Golden Plover	feathers found beside fence line at vp, too water logged to determine cause of death.	RV
17/01/2021	Vantage Point Survey, 4	Raven	high count	RV
17/01/2021	Vantage Point Survey, 4	Hooded Crow	high count	RV
17/01/2021	Vantage Point Survey, 4	Magpie	feeding in sheep field	RV
17/01/2021	Vantage Point Survey, 4	Jay	high count	RV
17/01/2021	Vantage Point Survey, 4	Redwing	feeding thrush flock in sheep field	RV
17/01/2021	Vantage Point Survey, 4	Fieldfare	as above	RV
17/01/2021	Vantage Point Survey, 4	Blackbird	as above, some birds singing	RV
17/01/2021	Vantage Point Survey, 4	Mistle Thrush	feeding in sheep field	RV
17/01/2021	Vantage Point Survey, 4	Song Thrush	feeding in sheep field	RV
17/01/2021	Vantage Point Survey, 4	Robin	singing and feeding by vp	RV
17/01/2021	Vantage Point Survey, 4	Great Tit	mixed feeding flock	RV
17/01/2021	Vantage Point Survey, 4	Coal Tit	probably more, mixed feeding flock	RV

Date	Survey	Species	Notes	Surveyor
17/01/2021	Vantage Point Survey, 4	Blue Tit	mixed feeding flock	RV
17/01/2021	Vantage Point Survey, 4	Goldcrest	mixed feeding flock	RV
17/01/2021	Vantage Point Survey, 4	Dunnock	calling around vp	RV
17/01/2021	Vantage Point Survey, 4	Wren	calling around vp	RV
17/01/2021	Vantage Point Survey, 4	Woodpigeon	flyovers and displaying	RV
17/01/2021	Vantage Point Survey, 4	Chaffinch	flock feeding at edge of field	RV
17/01/2021	Vantage Point Survey, 4	Bullfinch	pair feeding in front of vp	RV
17/01/2021	Vantage Point Survey, 4	Siskin	flyovers	RV
17/01/2021	Vantage Point Survey, 4	Lesser Redpoll	flyovers	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Raven	calling and displaying by start of transect, then flying over bog	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Hooded Crow	flyover	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Magpie	flyover	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Mistle Thrush	singing in rain	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Blackbird	2 flushed from isolated pine on hill	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Coal Tit	calling along edge of plantation	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Blue Tit	1 flushed from heather away from any trees or cover near end of transect.	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Robin	along beginning of transect	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Wren		RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Goldcrest	feeding along edge of plantation	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Chaffinch	flyovers	RV
17/01/2021	Winter Walkover Survey, 500m Survey Radius	Dunnock	calling from scrub at start of transect	RV
04/02/2021	Vantage Point Survey, VP2	Mistle Thrush	2	RV
04/02/2021	Vantage Point Survey, VP2	Raven	9, highest single count 7	RV
04/02/2021	Vantage Point Survey, VP2	Hooded Crow	2	RV
04/02/2021	Vantage Point Survey, VP2	Meadow Pipit	2	RV
06/02/2021	Vantage Point Survey, VP1	Raven	38 in trees below vp	RV
06/02/2021	Vantage Point Survey, VP1	Hooded Crow	20 with raven	RV
06/02/2021	Vantage Point Survey, VP1	Magpie	3 roving below vp	RV
06/02/2021	Vantage Point Survey, VP1	Mistle Thrush	4	RV
06/02/2021	Vantage Point Survey, VP1	Meadow Pipit	2	RV
06/02/2021	Vantage Point Survey, VP1	Song Thrush	2 singing	RV
06/02/2021	Vantage Point Survey, VP1	Blackbird	1 singing	RV
06/02/2021	Vantage Point Survey, VP1	Rook	7	RV
06/02/2021	Vantage Point Survey, VP1	Starling	23 passing flock	RV
06/02/2021	Vantage Point Survey, VP1	Jay	2 fly overs	RV

Date	Survey	Species	Notes	Surveyor
19/02/2021	Vantage Point Survey, VP3	Raven	3 displaying	RV
19/02/2021	Vantage Point Survey, VP3	Meadow Pipit	8 feeding	RV
19/02/2021	Vantage Point Survey, VP3	Hooded Crow	2 flying over	RV
19/02/2021	Vantage Point Survey, VP3	Mistle Thrush	3 feeding along road	RV
19/02/2021	Vantage Point Survey, VP3	Blackbird	3, 1 singing	RV
19/02/2021	Vantage Point Survey, VP3	Skylark	1 flyover	RV
19/02/2021	Vantage Point Survey, VP3	Reed Bunting	1 flyover	RV
19/02/2021	Vantage Point Survey, VP3	Song Thrush	1singing and feeding on road	RV
19/02/2021	Vantage Point Survey, VP3	Magpie	3 flying around	RV
19/02/2021	Vantage Point Survey, VP3	Goldcrest	4 singing and calling	RV
19/02/2021	Vantage Point Survey, VP3	Coal Tit	7 small flock feeding	RV
19/02/2021	Vantage Point Survey, VP3	Great Tit	3 calling/singing	RV
19/02/2021	Vantage Point Survey, VP3	Wren	2 singing	RV
19/02/2021	Vantage Point Survey, VP3	Robin	2 singing	RV
19/02/2021	Vantage Point Survey, VP3	Chaffinch	9 singing and flyovers	RV
19/02/2021	Vantage Point Survey, VP3	Siskin	2 flyovers	RV
21/02/2021	Vantage Point Survey, VP4	Raven	8	RV
21/02/2021	Vantage Point Survey, VP4	Magpie	3	RV
21/02/2021	Vantage Point Survey, VP4	Jay	2	RV
21/02/2021	Vantage Point Survey, VP4	Hooded Crow	4	RV
21/02/2021	Vantage Point Survey, VP4	Marsh Tit	2	RV
21/02/2021	Vantage Point Survey, VP4	Fieldfare	7 flyover flock	RV
21/02/2021	Vantage Point Survey, VP4	Redwing	2 flying over	RV
21/02/2021	Vantage Point Survey, VP4	Dunnock	3 calling/singing	RV
21/02/2021	Vantage Point Survey, VP4	Siskin	4 flyovers	RV
21/02/2021	Vantage Point Survey, VP4	Lesser Redpoll	3 flyovers	RV
21/02/2021	Vantage Point Survey, VP4	Chaffinch	8 flyovers calling	RV
06/03/2021	Vantage Point Survey, VP1	Raven	9,flying over	RV
06/03/2021	Vantage Point Survey, VP1	Hooded Crow	7,flying over	RV
06/03/2021	Vantage Point Survey, VP1	Magpie	3,feeding in fields	RV
06/03/2021	Vantage Point Survey, VP1	Mistle Thrush	4,flying around fields	RV
06/03/2021	Vantage Point Survey, VP1	Blackbird	2,singing	RV
06/03/2021	Vantage Point Survey, VP1	Song Thrush	2,singing	RV
06/03/2021	Vantage Point Survey, VP1	Skylark	6, singing and displaying	RV
06/03/2021	Vantage Point Survey, VP1	Meadow Pipit	8, singing and displaying	RV
06/03/2021	Vantage Point Survey, VP1	Siskin	3, flyovers	RV

Date	Survey	Species	Notes	Surveyor
06/03/2021	Vantage Point Survey, VP1	Lesser Redpoll	1, flyover	RV
06/03/2021	Vantage Point Survey, VP1	Coal Tit	5, calling from plantation	RV
06/03/2021	Vantage Point Survey, VP1	Chaffinch	8, calling and flying over	RV
08/03/2021	Vantage Point Survey, VP2	Raven	20, minimum count	RV
08/03/2021	Vantage Point Survey, VP2	Hooded Crow	3, flyovers	RV
08/03/2021	Vantage Point Survey, VP2	Magpie	2	RV
08/03/2021	Vantage Point Survey, VP2	Chaffinch	7, calling and singing	RV
08/03/2021	Vantage Point Survey, VP2	Siskin	4, flyovers	RV
08/03/2021	Vantage Point Survey, VP2	Lesser Redpoll	2, flyovers	RV
08/03/2021	Vantage Point Survey, VP2	Coal Tit	2, calling	RV
08/03/2021	Vantage Point Survey, VP2	Meadow Pipit	6, displaying	RV
08/03/2021	Vantage Point Survey, VP2	Skylark	7, displaying	RV
08/03/2021	Vantage Point Survey, VP2	Mistle Thrush	2, feeding by track	RV
08/03/2021	Vantage Point Survey, VP2	Blackbird	2, singing	RV
08/03/2021	Vantage Point Survey, VP2	Duncock	2, singing	RV
08/03/2021	Vantage Point Survey, VP2	Robin	2, singing	RV
08/03/2021	Vantage Point Survey, VP2	Song Thrush	1, singing	RV
10/03/2021	Vantage Point Survey, VP4	Raven	13, at sheep carcass	RV
10/03/2021	Vantage Point Survey, VP4	Hooded Crow	7, at sheep carcass	RV
10/03/2021	Vantage Point Survey, VP4	Magpie	3, at sheep carcass	RV
10/03/2021	Vantage Point Survey, VP4	Jay	2, flyovers	RV
10/03/2021	Vantage Point Survey, VP4	Coal Tit	7, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Blue Tit	3, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Great Tit	6, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Long-tailed Tit	7, passing flock	RV
10/03/2021	Vantage Point Survey, VP4	Skylark	1, singing	RV
10/03/2021	Vantage Point Survey, VP4	Meadow Pipit	3, flyovers	RV
10/03/2021	Vantage Point Survey, VP4	Redwing	16, flyover, 1 flock	RV
10/03/2021	Vantage Point Survey, VP4	Mistle Thrush	2, singing	RV
10/03/2021	Vantage Point Survey, VP4	Song Thrush	2, singing	RV
10/03/2021	Vantage Point Survey, VP4	Blackbird	6, 2 singing, 4 feeding in field	RV
10/03/2021	Vantage Point Survey, VP4	Woodpigeon	2, flyovers	RV
10/03/2021	Vantage Point Survey, VP4	Siskin	4, flyovers	RV
10/03/2021	Vantage Point Survey, VP4	Lesser Redpoll	2, flyovers	RV
10/03/2021	Vantage Point Survey, VP4	Chaffinch	3, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Robin	3, singing	RV

Date	Survey	Species	Notes	Surveyor
10/03/2021	Vantage Point Survey, VP4	Wren	6, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Dunnock	2, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Goldcrest	3, calling and singing	RV
10/03/2021	Vantage Point Survey, VP4	Bullfinch	2, pair feeding	RV
18/03/2021	Vantage Point Survey, VP3	Raven	2, pair displaying	RV
18/03/2021	Vantage Point Survey, VP3	Hooded Crow	4, mobbing ravens mostly	RV
18/03/2021	Vantage Point Survey, VP3	Magpie	3, flying over	RV
18/03/2021	Vantage Point Survey, VP3	Coal Tit	2, calling and singing	RV
18/03/2021	Vantage Point Survey, VP3	Meadow Pipit	13, displaying	RV
18/03/2021	Vantage Point Survey, VP3	Skylark	8, displaying	RV
18/03/2021	Vantage Point Survey, VP3	Song Thrush	3, singing	RV
18/03/2021	Vantage Point Survey, VP3	Mistle Thrush	2, pair	RV
18/03/2021	Vantage Point Survey, VP3	Blackbird	3, singing	RV
18/03/2021	Vantage Point Survey, VP3	Robin	1, singing	RV
18/03/2021	Vantage Point Survey, VP3	Siskin	8, flyovers	RV
18/03/2021	Vantage Point Survey, VP3	Lesser Redpoll	3, flyovers	RV
18/03/2021	Vantage Point Survey, VP3	Blue Tit	1, calling	RV
18/03/2021	Vantage Point Survey, VP3	Redwing	8, flyovers	RV
18/03/2021	Vantage Point Survey, VP3	Dunnock	1, singing	RV
18/03/2021	Vantage Point Survey, VP3	Wren	3, singing	RV