APPENDIX 5

BIRD SURVEY REPORT

Planning and Environmental Consultants

Appendix 5 Bird Survey Report

Extraction in Lemanaghan Bog, Co. Offaly

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1. INTRODUCTION

MKO were appointed to carry out ornithological surveys at the Lemanaghan Bog, County Offaly as part of the Proposed Lemanaghan Wind Farm application.

This report describes the survey methods employed and provides a summary of survey results collected at the Application Site for the period October 2020 to March 2025 inclusive. It is structured as follows:

- An introduction.
- A description of the ornithological surveys carried out, including a statement of authority and limitations.
- A summary of the results of ornithological surveys carried out.

This report is supported by Appendices A to D. Appendices A to C contain data from the surveys undertaken including full details of the survey times, weather conditions, and other relevant information together with the bird records themselves. Confidential Appendix D contains sensitive records of protected species breeding and roosting sites.

1.1 Study Area Description

The Application Site comprises Lemanaghan Bog, which is part of the Boora Bog Group (IPC Licence P0500-01). The Application Site comprises an area of 1,110 hectares (ha) within which bog drainage works began in 1950 followed by the commencement of peat extraction from 1960. The Application Site is located approximately 2.5km southwest of Ballycumber , approximately 3.5km to the northeast of Ferbane, approximately 7.8km southwest of Clara, and approximately 8.7km south of Moate. The Application Site location is shown on Figure 1-1 below. The Application Site measures approximately 5.5km in length from north to south, and approximately 6.4km from east to west, at its widest point. Grid Reference co-ordinates for the approximate site centre are E216096, N228101. Under the Water Framework Directive (WFD; Directive 2000/60/EC), the site is located within the Upper Shannon (26G) and Lower Shannon (25A) catchments.

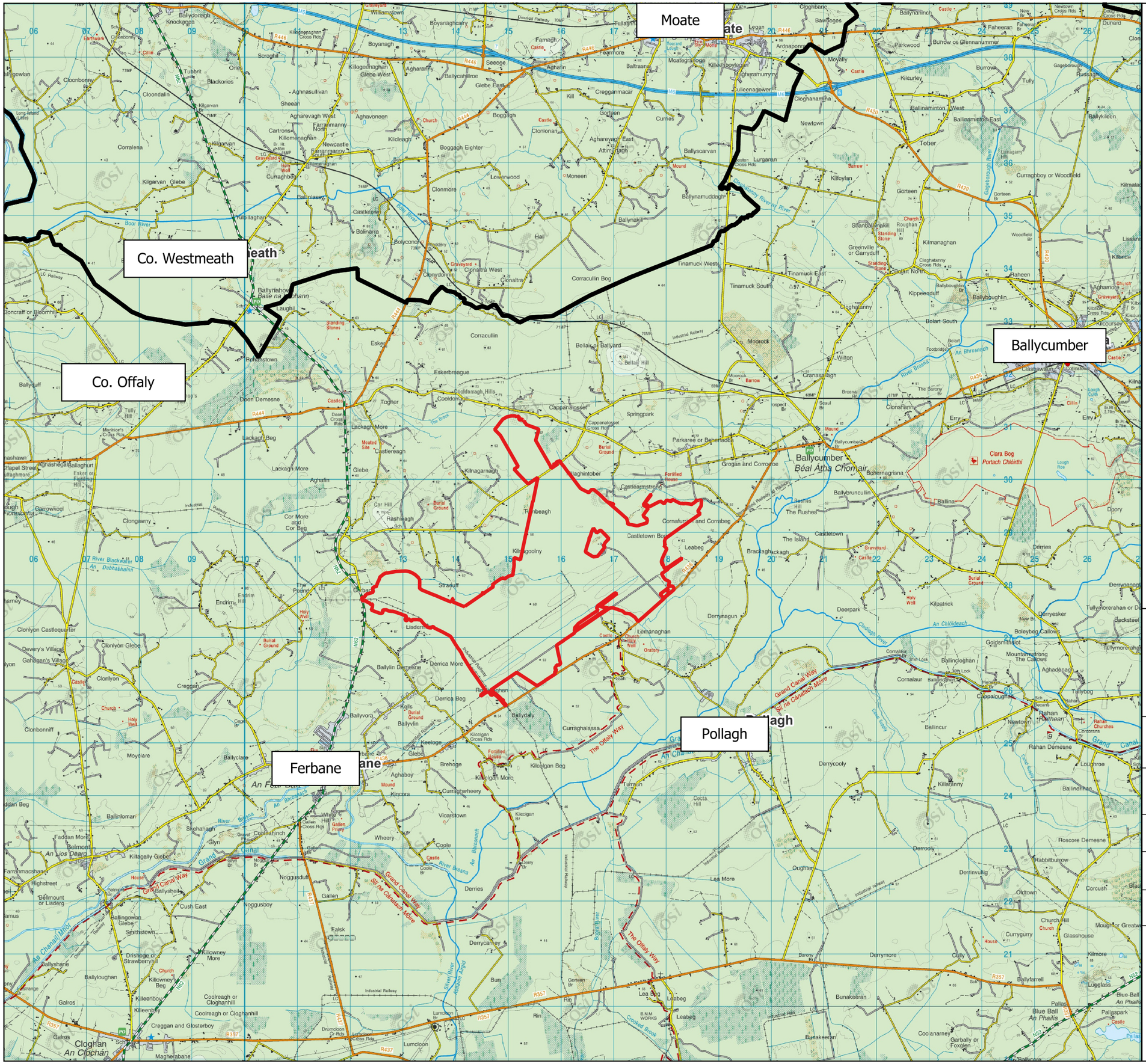
Special Protection Areas (SPAs) within the surrounds of the Application Site are listed below in addition to approximate distances from the Application Site. Further information in relation to the below SPAs is provided in Chapter 6: Biodiversity.

- Mongan Bog SPA (8.6km)
- Middle Shannon Callows SPA (8.7km)
- Lough Ree SPA (15.2km)
- River Suck Callows SPA (15.7km)
- Lough Derg (Shannon) SPA (33.6km).

The surveys outlined below were conducted as part of the proposed Lemanaghan Wind Farm application. Lemanaghan DAC, a joint venture between SSE Renewables and Bord na Móna (BnM) (i.e. the Applicant) are proposing a wind energy development consisting of 15 turbines with an overall blade to tip height of 220m[1]at the Application Site. A separate EIAR and accompanying NIS are being undertaken for the proposed Lemanaghan Wind Farm development. At the time of writing, the planning application for this development has not yet been submitted to An Coimisiún Pleanála.

The surveys conducted as part of the proposed Lemanaghan Wind Farm application at the Application Site are described in below Sections 2.1.2.1 to 2.1.2.8 and the results from these surveys are outlined in Section 3.1 of this report.

[1] https://www.lemanaghanwindfarm.ie/



Map Legend

- Application Site Boundary
- County Boundaries

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Drawing Title

Site Location Context

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Figure 1-1
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2. METHODOLOGY

2.1 Field Surveys

Field surveys were undertaken during the survey period October 2020 to March 2025, consisting of four breeding seasons (April – September) and five non-breeding seasons (October – March).

These field surveys were undertaken in compliance with NatureScot guidance (SNH, 2017).

Field survey methodologies were devised to survey for the bird species composition and assemblages that occur within the study area. The study area surveyed for each type of survey is discussed in the methodology section below. The survey radii described in the below sections were devised in relation to the Lemanaghan Bog boundary, as provided to MKO by Bord na Móna during initial survey design for the proposed Lemanaghan Wind Farm. The Lemanaghan Bog boundary encompasses the Application Site boundary with the addition of some areas outside of the Application Site boundary to the south. As such, in most cases the survey radii discussed in the relevant sections below exceeded the respective distances from the Application Site and the requirements of SNH (2017).

2.1.1 Initial Site Assessment

Based on the results of the desk study, consultation and reconnaissance site visits undertaken in September 2020 in relation to the proposed Lemanghan Wind Farm, the likely importance of the study area for bird species was ascertained. A list of "target species" likely to occur at the Application Site was compiled. Bird surveys conducted at the Application Site were then specifically designed to survey for these target species, in accordance with NatureScot guidance (SNH, 2017). The target species list was drawn from:

- Species listed on Annex I of the EU Birds Directive.
- Special Conservation Interests (SCI) of Special Protection Areas (SPA) within the zone of likely significant effects.
- Red listed Birds of Conservation Concern in Ireland (BoCCI).
- Other raptor species not included in the above.

Based on the collated information available from the above preliminary assessment and adopting a precautionary approach, a site-specific scope for the ornithological surveys was developed. The various survey types undertaken are described below.

2.1.2 Survey Methodologies

2.1.2.1 Vantage Point Surveys

Vantage point surveys were undertaken at the Lemanaghan Bog from April 2021 to March 2025. Surveys were conducted monthly throughout the survey period from 6 no. fixed point vantage points, allowing comprehensive coverage of the Application Site.

Data Recording and Digitisation

Survey methodology followed SNH (2017). The surveyor collected data on bird observations and flight activity from the scanning arc of 180° to a 2km radius at the fixed vantage point locations for two 3 hour watches separated by a minimum 30 minute break (i.e. 6 hours total) per month. Surveys were conducted from October 2020 to March 2025 inclusive, and were scheduled to provide a minimum of 36 hours per winter or breeding season and spread over the full daylight period, including dawn and dusk watches, to coincide with the highest periods of bird activity (Table 2-1).

Table 2-1 Vantage point survey effort

Survey Season and Number of Vantage Points (VPs)	Effort per Vantage Point (VP)
Winter Season 2020/2021 (6 VPs)	21/24 hours per VP[2]
Breeding Season 2021 (6 VPs)	36 hours per VP
Winter Season 2021/2022 (6 VPs)	36 hours per VP
Breeding Season 2022 (6 VPs)	36 hours per VP
Winter Season 2022/2023 (6 VPs)	36 hours per VP
Breeding Season 2023 (6 VPs)	36 hours per VP
Winter Season 2023/2024 (6 VPs)	36 hours per VP
Breeding Season 2024 (6 VPs)	36 hours per VP
Winter Season 2024/2025 (6 VPs)	36 hours per VP

Each flight observation was assigned a unique identifier when mapped in the field and subsequently digitised using GIS software. Survey effort is presented in Appendix B, including full details of dates, times and weather conditions for each survey. Figure 2-1 shows the Vantage Point Survey Locations.

2.1.2.2 Breeding Walkover Surveys

Breeding walkover surveys were undertaken to determine the presence of bird species of high conservation concern and identify areas of possible, probable or confirmed breeding for bird species observed within the Application Site, and to a 500m radius of the Lemanaghan Bog boundary. The methodology was based on Brown and Shepherd (1993) and Calladine *et al.* (2009), combined with Common Bird Census methods (British Trust for Ornithology, 2021) for dense habitat. Transect routes were walked across different habitat complexes within the survey area where access allowed. Using binoculars, the surveyor regularly scanned the surroundings of each transect for target species. All target species were mapped and breeding status was assigned following British Trust for Ornithology (BTO) breeding status codes[3]. In addition, the presence of any non-target species was recorded to inform the evaluation of supporting habitat.

Breeding walkover surveys were carried out at dawn over four visits during the core breeding season months April to July (2021, 2022, 2023 & 2024), with the Application Site being visited three consecutive days per month on each occasion. Following all survey visits, the field maps were analysed to determine the number and location of breeding territories. All non-breeding individuals and species encountered were also recorded.

Survey effort is presented in Appendix B, including full details of dates, times and weather conditions for each survey. Figure 2-2 shows the Breeding Walkover Transect routes.

2.1.2.3 Breeding Raptor Surveys

Raptors include all harrier, falcon, buzzard, eagle, hawk, owl, kite and osprey species. Breeding raptor surveys were undertaken within the Application Site, and to a 2km radius of the Lemanaghan Bog boundary, to identify occupied territories and monitor their breeding success near or within the Wind Farm Site. Survey methodology followed Hardey *et al.* (2013). Breeding raptor watches of 3 hours (supplemented by transects if necessary) were conducted during daylight at a total of 11 no. breeding

[2] *A total of 36 hours were not completed at VPs in 2020/2021.*
[3] https://www.bto.org/our-science/projects/birdatlas/methods/breeding-evidence

raptor locations over the four breeding seasons. All raptor species observed were recorded and mapped and breeding status was assigned following BTO breeding status codes. Surveyors did not approach nest sites to avoid disturbance.

Each breeding raptor location was surveyed once per month during the core breeding season between April and July. Survey effort is presented in Appendix B, including full details of dates, times and weather conditions. Figure 2-3 shows the Breeding Raptor Survey Locations.

2.1.2.4 Breeding Woodcock Surveys

Breeding woodcock surveys were undertaken within the Application Site and to a 500m radius of the Lemanaghan Bog boundary. The aim of the survey was to identify breeding woodcock territories within the Application Site by locating roding (breeding display) males. Survey methodology followed Gilbert *et al.* (1998): the surveyor walked transects within the Survey Area for two hours from dusk until last visible light during which all woodcock observations were mapped, with particular reference to roding observations. Each transect was surveyed three times during the core breeding season of May and June (2021, 2022, 2023 & 2024).

Survey effort is presented in Appendix B, including full details of dates, times and weather conditions. Figure 2-4 shows the Breeding Woodcock survey transects.

2.1.2.5 Breeding Kingfisher Surveys

Following observations of kingfisher activity along a bog drain during a vantage point survey in early May 2023, a dedicated breeding kingfisher survey was undertaken at this location in May 2023. The aim of the survey was to confirm presence of a breeding kingfisher territory at this location by locating kingfishers or signs of nesting. Survey methodology followed Cummins *et al.* (2010): the surveyor walked along the subject drains searching for kingfisher, nest holes or suitable nesting banks during daylight hours. All such observations were recorded and mapped.

Survey effort is presented in Appendix B, including full details of dates, times and weather conditions. The survey location is shown in Confidential Appendix 7-5 Figure 3-3.

This location was subsequently surveyed as part of breeding walkover surveys in breeding season 2024.

2.1.2.6 Breeding Barn Owl Surveys

Following an incidental observation of a barn owl within a building in March 2021 during a dusk vantage point survey, breeding barn owl surveys were subsequently undertaken at this location during breeding seasons 2021, 2022 & 2023. Survey methodology followed TII (2021). The surveyor conducted a watch at the potential nest site from 30 mins before sunset until 1 hour after sunset, searching for barn owls provisioning young, listening for the sound of chicks, and observing for barn owl pellets, feathers or whitewash. All such observations were recorded and mapped and a breeding status was assigned following TII (2021). The potential nest site was surveyed a minimum of three times during the core breeding season May to July (2021, 2022 & 2023).

Survey effort is presented in Appendix B, including full details of dates, times and weather conditions. The survey location is shown in Confidential Appendix 7-5 Figure 6-1.

2.1.2.7 Winter Walkover Surveys

Winter walkover surveys were undertaken to record the presence of bird species within the Application Site to a 500m radius of the Lemanaghan Bog boundary, including areas between vantage point locations. The methodology was adapted from the breeding walkover methodology outlined in Bibby *et al.* (2000) and adapted Brown and Shepherd surveys', combined with Common Bird Census methods (British Trust for Ornithology, 2021). Transect routes were walked across different habitat complexes within the survey area where access allowed. All target species were recorded and mapped. In addition, the presence of any non-target species was recorded to inform the evaluation of supporting habitat.

Winter walkover surveys were conducted in daylight hours over four visits between October and March (i.e. four visits in winter 2020/2021, four visits in winter 2021/2022, four visits in winter 2022/2023, four visits in winter 2023/2024 and four visits in winter 2024/2025).

Survey effort is presented in Appendix B, including full details of dates, times and weather conditions for each survey. Figure 2-5 shows the Winter Walkover Survey Radius.

2.1.2.8 Hen Harrier Roost Surveys

Hen harrier roost surveys were undertaken in areas of suitable habitat within a 2km radius of the Lemanaghan Bog boundary. These surveys aimed to identify active winter hen harrier roosts near or within the Application Site. Survey methodology followed Gilbert et al. (1998) and O'Donoghue (2019). Roost watches of 2-3 hours were conducted at a total of six hen harrier vantage point locations over the five winter seasons surveyed. Surveys were carried from dusk until last visible light during which all hen harrier observations were recorded and mapped.

Each hen harrier vantage point was surveyed once per month during the winter season between October and March inclusive (in winters 2020/2021, 2021/2022, 2022/2023, 2023/2024, 2024/2025). Survey effort is presented in Appendix B, including full details of dates, times and weather conditions. Figure 2-6 shows the Hen Harrier Roost Survey locations.

2.1.2.9 Waterbird Distribution and Abundance Surveys

Waterbirds include: swans, geese and ducks; cormorant, shag, divers and grebes; auks and seabirds; gulls, terns and skuas; herons, egrets and crane; rails and crakes; waders; and kingfisher. Significant wetlands and waterbodies within 8km of the Lemanaghan Bog boundary were surveyed for waterbirds during the 2020/2021, 2021/2022, 2022/2023, 2023/2024 and 2024/2025 winter and passage seasons (August to May inclusive) to provide information on their distribution in relation to the Application Site . The area surveyed exceeds the 500m survey radius for foraging waterbirds, 1km for roosting waterbirds requirements of SNH (2017) and follows the recommendations of SNH (2016) to account for the core foraging ranges of whooper swan (<5km) and Greenland white-fronted goose (5-8km) which are Annex I waterbirds listed as species of special conservation interest (SCI) of SPAs within 15km of the Proposed Lemanaghan Wind Farm.

Survey methodology follows Gilbert *et al.* (1998) and the Irish Wetland Bird Survey (BirdWatch Ireland, 2021). Surveys were undertaken during daylight hours from suitable vantage points at wetlands and waterbodies. All target waterbird species were recorded and mapped. Survey effort, including details of survey duration and weather conditions, is presented in Appendix B. Figure 2-7 shows the Waterbird Distribution and Abundance Survey radius.

2.2 Statement of Authority

This report has been prepared by Nessa Lee (B.Sc.), Project Ornithologist of MKO, and reviewed by Donnacha Woods (B.Sc.), Senior Ornithologist. Both are suitably qualified ornithologists with experience in conducting ornithological assessments and competent for the purposes of the preparation of this report. Field surveys were undertaken by Ben Clarke, Andrew O'Donoghue, Cian Cahalin, Conor Geoghegan, Conor Rowlands, Fionn O'Donoghue, John Downes, Jonah Gaines, Kathryn Sheridan, Nessa Lee, Niamh Scanlon, Patrick Manley, Peter Capsey, Sheriene Acun, Shay Fennelly, Sean O'Brien, Susan Doyle, Susan Doran, Tom Ryan and Zuzana Erosova. Surveyors are all experienced and competent field ornithologists.



Map Legend

- Application Site Boundary
- Vantage Point Locations

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Drawing Title

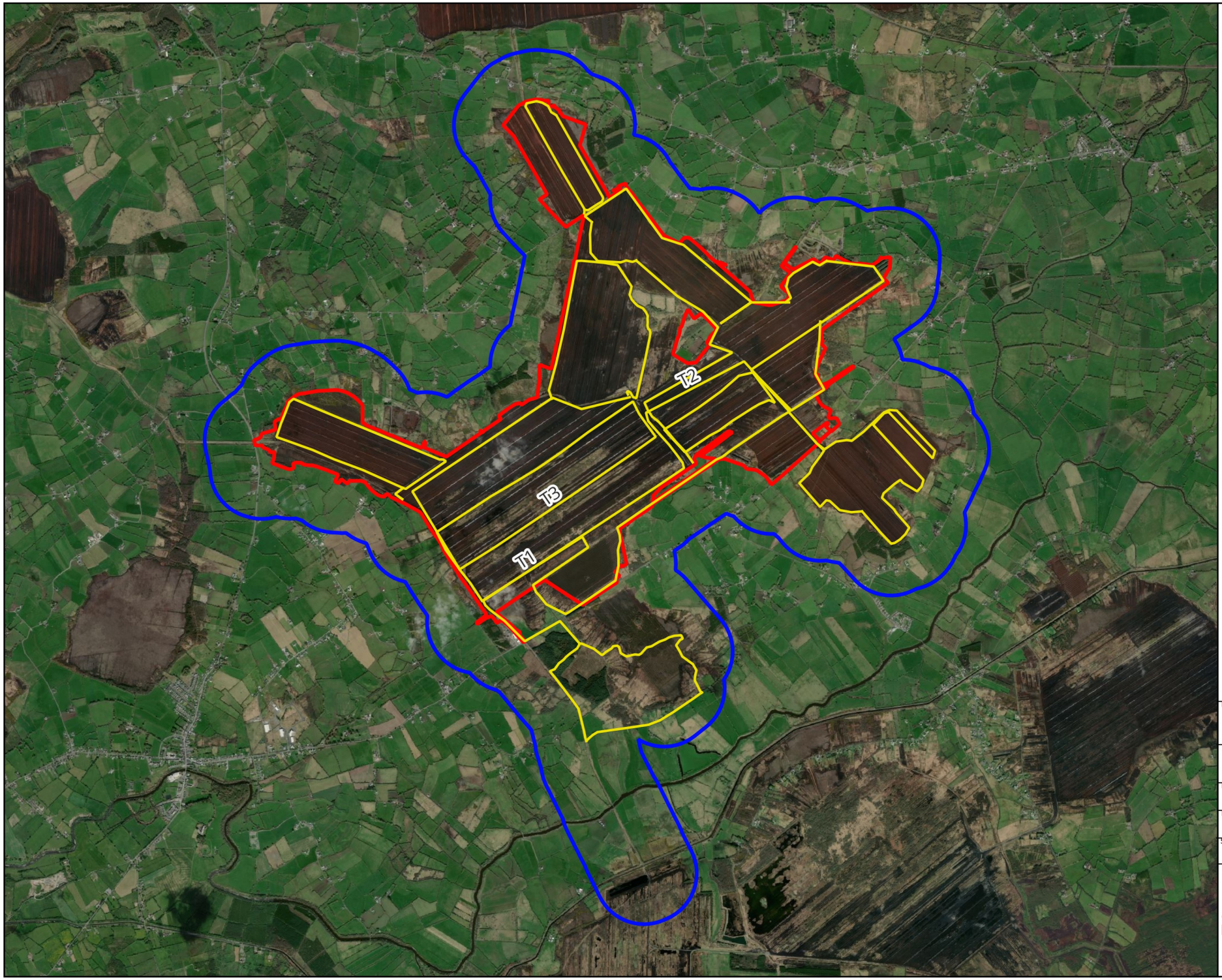
Vantage Point Survey Locations

Project Title

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Map Legend

- Application Site Boundary
- 500m Survey Radius
- Transects

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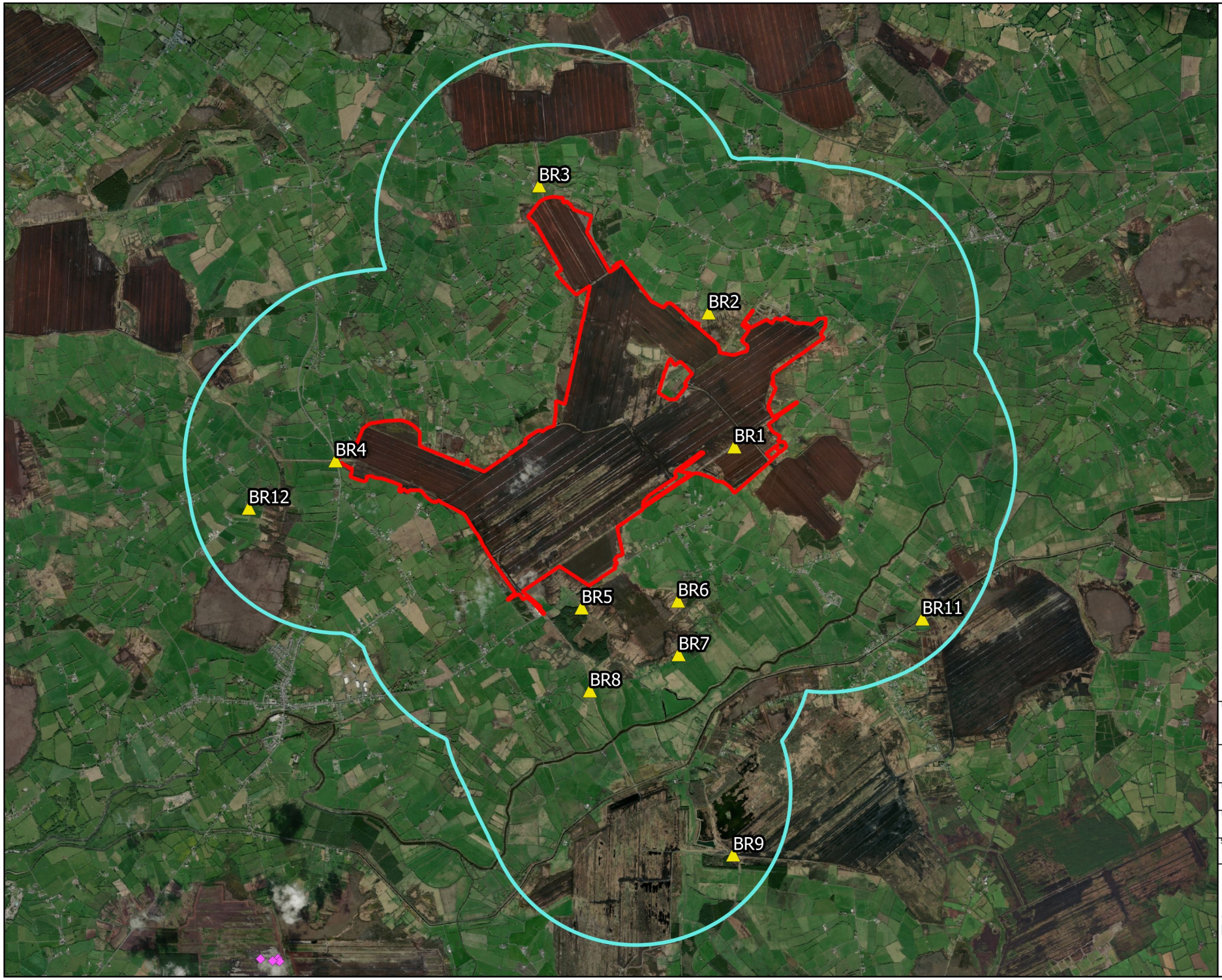
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Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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Map Legend

- Application Site Boundary
- 2km Survey Radius
- Breeding Raptor Survey Locations

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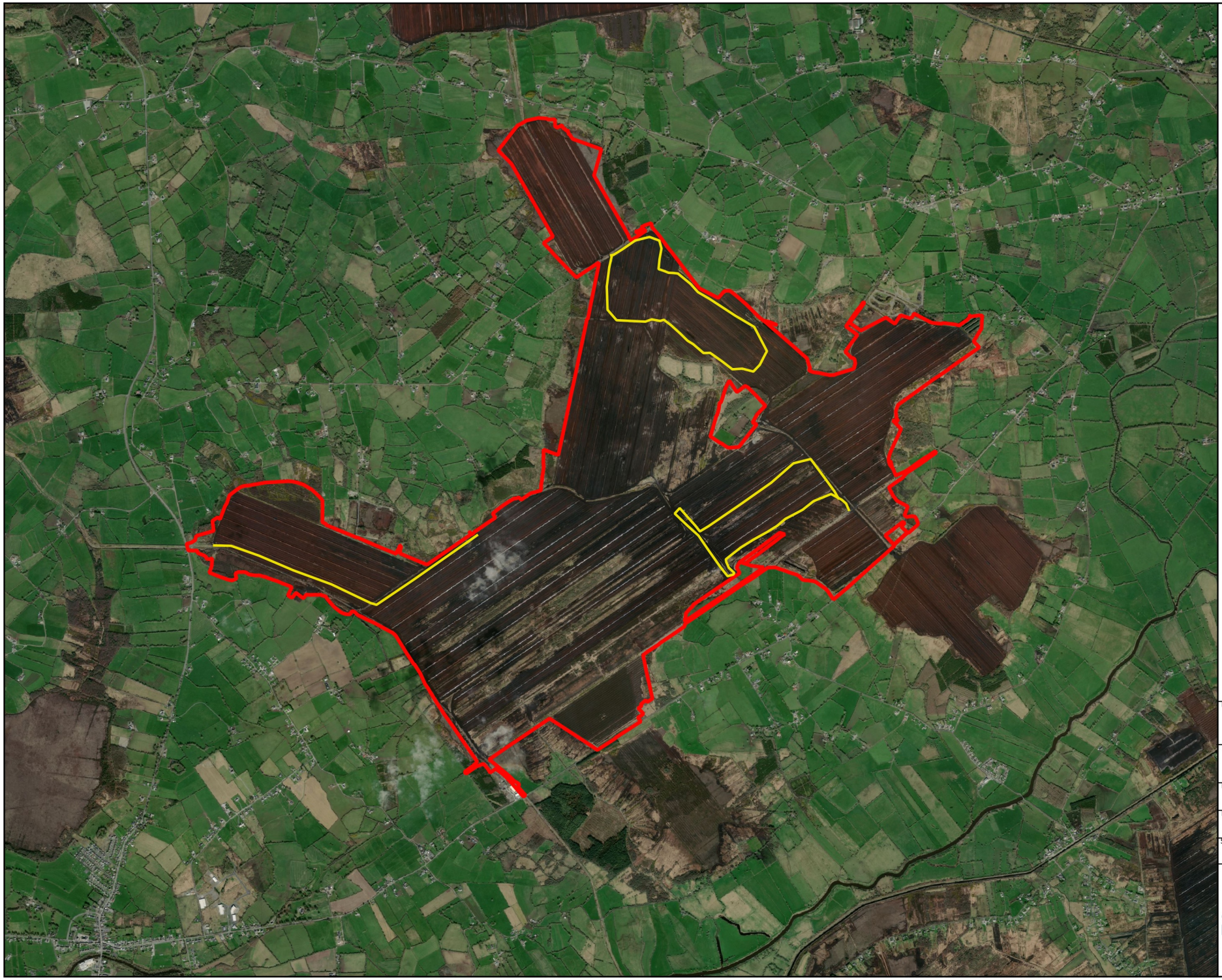
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Map Legend

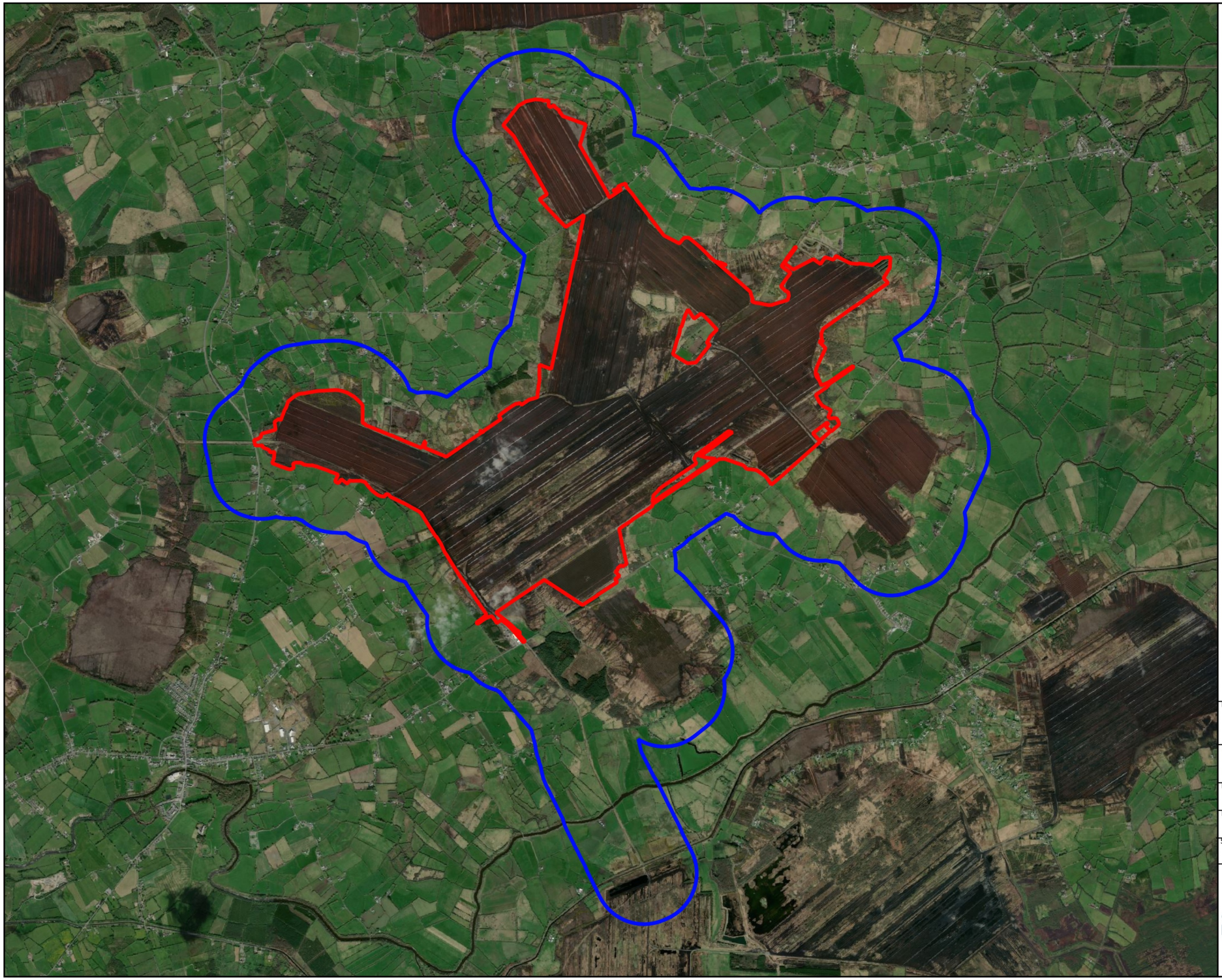
- Application Site Boundary
- Transects

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Drawing Title	Breeding Woodcock Survey Transects
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Map Legend

- Application Site Boundary
- 500m Survey Radius

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Drawing Title

Winter Walkover Survey Area

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Map Legend

- Application Site Boundary
- 2km Survey Radius
- Hen Harrier Roost Survey Locations

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Drawing Title: Hen Harrier Roost Survey Locations

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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Map Legend

- Application Site Boundary
- 8km Survey Radius

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Drawing Title	Waterbird Distribution and Abundance Survey Area
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 2-7
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3. RESULTS

3.1 Survey Results Summary

The target species listed below were recorded within the Application Site during the ornithological surveys. The list is ordered in accordance with conservation significance: Annex I species, SCIs of designated sites, Red listed species and raptors.

- Golden Plover (Annex I & SCI of Middle Shannon Callows SPA & Lough Ree SPA)
- Whooper Swan (Annex I & SCI of Middle Shannon Callows SPA & Lough Ree SPA)
- Common Crane (Annex I)
- Hen Harrier (Annex I)
- Kingfisher (Annex I)
- Little Egret (Annex I)
- Merlin (Annex I)
- Peregrine (Annex I)
- Lapwing (BoCCI Red Listed & SCI species of the Middle Shannon Callows SPA)
- Black-headed Gull (SCI of Middle Shannon Callows SPA & Lough Ree SPA)
- Barn Owl (BoCCI Red Listed)
- Curlew (BoCCI Red Listed)
- Kestrel (BoCCI Red Listed)
- Snipe (BoCCI Red Listed)
- Woodcock (BoCCI Red Listed)
- Buzzard (Raptor)
- Long-eared Owl (Raptor)
- Sparrowhawk (Raptor)
- BoCCI Red listed passerine species (Meadow Pipit, Redwing, Swift)

Raw survey data is presented in Appendix C Survey Data. A summary of observations **within the Application Site** for each of the species mentioned above is presented in Table 3-1 below.

Table 3-1 Summary of target species recorded within Application Site during all surveys.

Species	No. of Observations	Flock Range	Notes on Activity
Golden Plover	67	1 to 275	Observations were recorded across the months of September – April, and ranged from an individual up to 275 birds with the majority of observations comprising birds travelling and calling. There were two observations of birds landing on bog within the Application Site, comprising a flock of 80 birds in October 2023 and a flock of 46 birds in March 2024, in different locations.
Whooper Swan	125	1 to 71	Roosting was recorded across a total of five areas within the Application Site across the five winter seasons surveyed. The majority of observations related to one area (Ref: WS-a, see Confidential Appendix D, Figure 1-4), with regular interchange of birds observed between this area and a second regularly used nearby area (Ref: WS-b). The max flocks sizes recorded at each of the roosting areas across the five winter seasons surveys are provided below: › **Winter 2020/21** – Roosting recorded at four areas on-site with max counts of 39, 42, 28 and 2 respectively (Refs: WS-a, WS-b, WS-c & WS-d). › **Winter 2021/22** – Roosting recorded at two areas on-site with max counts of 15 and 23 respectively (Refs: WS-a & WS-b). › **Winter 2022/23** – Roosting recorded at four areas on-site with max counts of 71, 20, 57 and 5 respectively (Refs: WS-a, WS-b, WS-c & WS-d). › **Winter 2023/24** – Roosting recorded at two areas on-site with max counts of 11 and 5 respectively (Refs: WS-a & WS-e). › **Winter 2024/25** – Roosting recorded at three areas on-site with max counts of 10, 6 and 2 respectively (Refs: WS-a, WS-b & WS-c). Roosting locations are shown in Confidential Appendix D, Figure 1-4.
Common Crane	3	1 to 2	There was an incidental observation of a bird in flight within the Application Site in April 2024, and two observations of two birds foraging together within the Application Site in July 2024.
Hen Harrier	17	1	All observations were of individual birds travelling or hunting over the bog. There was no roosting recorded within the Application Site.
Kingfisher	38	1	Observations comprised individuals calling, flying and commuting along drains. The majority of observations related to an active nest which was confirmed within a bog drain in May 2023 (see Confidential Appendix D, Figure 3-4).
Little Egret	2	1	Observations comprised individual birds travelling over the bog and utilising the bog for foraging.
Merlin	15	1 to 2	There was one observation of an individual hunting, the remaining observations were of individuals travelling. There was one observation of an individual mobbing a kestrel in December 2021.

Species	No. of Observations	Flock Range	Notes on Activity
Peregrine	27	1 to 2	The majority of observations were of individual birds hunting or travelling. Survey results indicate the presence of a peregrine breeding pair in the wider area across the breeding seasons surveyed. There is limited to no suitable breeding habitat for peregrine within the Application Site. A pair was observed calling and in flight together in the vicinity of a suitable nesting structure situated within third-party lands in July 2022. An adult was observed carrying prey in May 2024 in the general direction of this structure. At such, an analysis of survey results and assessment of potential suitable nesting sites in the area indicate that this structure is the likely peregrine breeding location. This structure is situated approximately 100m distant from the Application Site.
Lapwing	132	1 to 18	The majority of observations comprised individual birds travelling or calling. There were several observation of breeding activity across the four breeding season surveys, as detailed below: › **2021 (Min one pair)** – Probable breeding recorded in one area within Application Site (Ref: L-a, see Confidential Appendix D, Figure 5-4), comprising two birds displaying in June 2021 and a bird mobbing a kestrel in early July 2021. There was no further breeding activity recorded. Estimated breeding of 1-2 pairs. › **2022** – No breeding activity recorded. › **2023 (Min two pairs)** – Breeding activity recorded in two areas within Application Site, one probable and one confirmed with two chicks observed in July 2023 (Refs: L-b & L-c respectively). Five birds were recorded together in late June 2023 and eight birds in late July 2023 in this area. However, by late July lapwing will begin congregating together in flocks which include non-breeding birds or failed breeders. As such, survey results indicate an estimate of 2-3 breeding pairs in 2023. › **2024 (Min two pairs)** – Probable breeding recorded in two areas within Application Site (Refs: L-b & L-d). Up to two birds were recorded displaying and mobbing in April and May 2024 in area previously recorded in 2023 (Ref: L-b). The majority of activity related to a different area in close proximity to this (Ref: L-d), where up to two birds were recorded calling, landing and resting across April to July 2024. Estimated breeding of 2-3 pairs, comprising one pair (Ref: L-b) and two pairs (Ref: L-d) across the two areas respectively. Breeding areas are shown in Confidential Appendix D, Figure 5-4.
Black-headed Gull	11	1 to 3	The majority of observations comprised individual birds travelling, with a max flock of three birds recorded. The majority of observations were in the breeding season.
Barn Owl	6	1 to 2	There were two observations of barn owl heard calling while on the bog during vantage point surveys. Barn owl was observed on four occasions during the dedicated breeding barn owl surveys. The observations comprised barn owl activity at a suitable nesting structure, with young heard begging/snoring from inside the structure, confirming breeding at this location in the 2021 breeding season, situated within the Application Site. Further dedicated surveys

Species	No. of Observations	Flock Range	Notes on Activity
			were undertaken at this location in the 2022 and 2023 breeding seasons, however no barn owl activity was recorded. It is noted that this structure was boarded up following the 2021 breeding season, likely rendering the structure unsuitable for barn owl in subsequent seasons.
Curlew	3	1 to 5	Observations comprised a single bird first heard calling then seen travelling on same day in September 2024, and an observation of five birds travelling and calling in late July 2023.
Kestrel	733	1 to 4	The majority of observations were of birds hunting, commuting or perched. There were several observation of breeding activity across the four breeding season surveys, as detailed below: › **2021 (Five territories)** – Three confirmed and two probable breeding territories (Refs: K-a, K-b, K-c, K-d & K-k) all partially within the Application Site. › **2022 (Six territories)** – One confirmed and five probable breeding territories (Refs: K-a, K-c, K-e, K-f, K-g & K-h), four being within/partially within the Application Site. › **2023 (Seven territories)** – Two confirmed and five probable breeding territories (Refs: K-a, K-c, K-f, K-g, K-i, K-j & K-k), six being within/partially within the Application Site. › **2024 (Four territories)** – Three confirmed and one probable breeding territory (Refs: K-c, K-k, K-l & K-m), three being within/partially within the Application Site. Breeding areas are shown in Confidential Appendix D, Figure 7-6.
Snipe	293	1 to 14	The majority of observations were of birds commuting, calling or being flushed by the observer. There were a total of seven probable snipe territories identified during the 2023 breeding season. All of these territories were within the Application Site. In 2024 there was five probable snipe territories identified within the Application Site.
Woodcock	242	1 to 2	The majority of woodcock observations were during the dedicated breeding woodcock surveys and comprised male birds roding. Probable woodcock was identified in all suitable breeding habitat within the areas surveyed.
Buzzard	688	1 to 4	The majority of buzzard observations were of birds commuting, hunting or soaring. In 2025, two probable breeding territories were identified on, or adjacent to, the bog. In 2024, there was three confirmed territories identified on, or adjacent to, the bog. In 2023, there were eight probable breeding territories identified on the bog. In 2022, there were four probable breeding territories identified, mostly adjacent to the bog. There was one breeding territory confirmed 800m from the main bog in 2022. In 2021, there were eight probable territories and two confirmed territories within and adjacent to the bog. Breeding areas are shown in Confidential Appendix D, Figure 8-5.
Long-eared owl	1	1	There was one observation of an individual bird flying over the bog.

Species	No. of Observations	Flock Range	Notes on Activity
Sparrowhawk	91	1 to 2	The majority of sparrowhawk observations were of birds commuting, hunting or soaring. In 2025, there were two probable breeding territories identified within the bog. In 2024, there were four confirmed breeding territories on, or adjacent to the bog. In 2023 and 2021 there were two separate breeding territories confirmed on the outskirts of the bog. In 2021, there was one probable breeding territory on the southeastern part of the bog.
Passerines (Red Listed)	-	-	The BoCCI Red listed species meadow pipit, redwing, stock dove, swift and yellowhammer were recorded during the surveys undertaken at the bog. Meadow pipit were observed on 692 occasions, with up to 49 birds being recorded. Redwing were observed on 25 occasions, with up to 36 birds being recorded. Swift were observed on 14 occasions, with up to 15 birds being recorded.

APPENDIX A

SPECIES LIST

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Table 1. Target species recorded during surveys 1
Table 2. Non-Target species recorded during surveys 1

Table 1. Target species recorded during surveys

Species Name	Scientific Name
Barn Owl	*Tyto alba*
Black-headed Gull	*Chroicocephalus ridibundus*
Black-tailed Godwit	*Limosa limosa*
Brent Goose	*Branta bernicla*
Buzzard	*Buteo buteo*
Common Tern	*Sterna hirundo*
Crane	*Grus grus*
Curlew	*Numenius arquata*
Golden Plover	*Pluvialis apricaria*
Great White Egret	*Egretta alba (Ardea alba)*
Grey Partridge	*Perdix perdix*
Grey Wagtail	*Motacilla cinerea*
Hen Harrier	*Circus cyaneus*
Kestrel	*Falco tinnunculus*
Kingfisher	*Alcedo atthis*
Lapwing	*Vanellus vanellus*
Little Egret	*Egretta garzetta*
Long-eared Owl	*Asio otus*
Marsh Harrier	*Circus aeruginosus*
Meadow Pipit	*Anthus pratensis*
Merlin	*Falco columbarius*
Osprey	*Pandion haliaetus*
Peregrine Falcon	*Falco peregrinus*
Redshank	*Tringa totanus*
Redwing	*Turdus iliacus*
Shoveler	*Spatula clypeata*
Snipe	*Gallinago gallinago*
Sparrowhawk	*Accipiter nisus*
Swift	*Apus apus*
White-tailed Eagle	*Haliaeetus albicilla*
Whooper Swan	*Cygnus cygnus*
Woodcock	*Scolopax rusticola*

Table 2. Non-Target species recorded during surveys

Species Name	Scientific Name
Barn Swallow	*Hirundo rustica*
Blackbird	*Turdus merula*
Blackcap	*Sylvia atricapilla*
Blue Tit	*Cyanistes caeruleus*
Bullfinch	*Pyrrhula pyrrhula*
Chaffinch	*Fringilla coelebs*
Chiffchaff	*Phylloscopus collybita*
Coal Tit	*Periparus ater*
Collared Dove	*Streptopelia decaocto*

Species Name	Scientific Name
Common Gull	*Larus canus*
Common Redpoll	*Acanthis flammea*
Coot	*Fulica atra*
Cormorant	*Phalacrocorax carbo*
Cuckoo	*Cuculus canorus*
Dunnock	*Prunella modularis*
Fieldfare	*Turdus pilaris*
Goldcrest	*Regulus regulus*
Goldfinch	*Carduelis carduelis*
Grasshopper Warbler	*Locustella naevia*
Great Crested Grebe	*Podiceps cristatus*
Great Tit	*Parus major*
Green Sandpiper	*Tringa ochropus*
Greenfinch	*Chloris chloris*
Greenshank	*Tringa nebularia*
Grey Heron	*Ardea cinerea*
Herring Gull	*Larus argentatus*
Hooded Crow	*Corvus cornix*
House Martin	*Delichon urbicum*
House Sparrow	*Passer domesticus*
Jack Snipe	*Lymnocryptes minimus*
Jackdaw	*Coloeus monedula*
Jay	*Garrulus glandarius*
Lesser Black-backed Gull	*Larus fuscus*
Lesser Redpoll	*Acanthis cabaret*
Linnet	*Linaria cannabina*
Little Grebe	*Tachybaptus ruficollis*
Long-tailed Tit	*Aegithalos caudatus*
Magpie	*Pica pica*
Mallard	*Anas platyrhynchos*
Mistle Thrush	*Turdus viscivorus*
Moorhen	*Gallinula chloropus*
Mute Swan	*Cygnus olor*
Northern Harrier	*Circus hudsonius*
Pheasant	*Phasianus colchicus*
Pied Wagtail	*Motacilla alba*
Pink-footed Goose	*Anser brachyrhynchus*
Pintail	*Anas acuta*
Raven	*Corvus corax*
Redwing	*Turdus iliacus*
Reed Bunting	*Emberiza schoeniclus*
Ringed Plover	*Charadrius hiaticula*
Robin	*Erithacus rubecula*
Rook	*Corvus frugilegus*
Sand Martin	*Riparia riparia*
Sedge Warbler	*Acrocephalus schoenobaenus*

Species Name	Scientific Name
Siskin	*Spinus spinus*
Skylark	*Alauda arvensis*
Song Thrush	*Turdus philomelos*
Spotted Flycatcher	*Muscicapa striata*
Starling	*Sturnus vulgaris*
Stonechat	*Saxicola rubicola*
Teal	*Anas crecca*
Treecreeper	*Certhia familiaris*
Tufted Duck	*Aythya fuligula*
Water Rail	*Rallus aquaticus*
Wheatear	*Oenanthe oenanthe*
Whimbrel	*Numenius phaeopus*
White Wagtail	*Motacilla alba*
Whitethroat	*Sylvia communis*
Wigeon	*Mareca penelope*
Willow Warbler	*Phylloscopus trochilus*
Woodpigeon	*Columba palumbus*
Wren	*Troglodytes troglodytes*

APPENDIX B

SURVEY EFFORT

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Table 1 Vantage point survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
29/10/2020	Vantage Point Survey	VP1	1:00 starting at 11:30	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
29/10/2020	Vantage Point Survey	VP1	1:00 starting at 12:30	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		JH
29/10/2020	Vantage Point Survey	VP1	1:00 starting at 13:30	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		JH
29/10/2020	Vantage Point Survey	VP5	1:00 starting at 15:04	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
29/10/2020	Vantage Point Survey	VP5	1:00 starting at 16:04	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JH
29/10/2020	Vantage Point Survey	VP5	1:00 starting at 17:04	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP3	1:00 starting at 11:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP3	1:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP3	1:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP6	1:00 starting at 15:02	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP6	1:00 starting at 16:02	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
30/10/2020	Vantage Point Survey	VP6	1:00 starting at 17:02	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 06:30	Visibility: poor; Wind speed and direction: light air SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 07:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
05/11/2020	Vantage Point Survey	VP2	1:00 starting at 07:35	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 08:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 10:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
05/11/2020	Vantage Point Survey	VP1	1:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
06/11/2020	Vantage Point Survey	VP2	1:00 starting at 06:35	Visibility: poor; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
06/11/2020	Vantage Point Survey	VP2	1:00 starting at 08:35	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
06/11/2020	Vantage Point Survey	VP2	1:00 starting at 10:05	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
06/11/2020	Vantage Point Survey	VP2	1:00 starting at 11:05	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
06/11/2020	Vantage Point Survey	VP2	1:00 starting at 12:05	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 06:45	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Mist and fog	JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 07:45	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Mist and fog	JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 08:45	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Mist and fog	JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 10:15	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 11:15	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/11/2020	Vantage Point Survey	VP3	1:00 starting at 12:15	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 06:49	Visibility: poor; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 07:49	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 08:49	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 10:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 11:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/11/2020	Vantage Point Survey	VP4	1:00 starting at 12:20	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 06:50	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 07:50	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 08:50	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 0-33% >500m; Rain: drizzle; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 10:20	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 11:20	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
13/11/2020	Vantage Point Survey	VP5	1:00 starting at 12:20	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
17/11/2020	Vantage Point Survey	VP6	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
14/06/2022	Vantage Point Survey	VP1	6:30 starting at 13:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/06/2022	Vantage Point Survey	VP1	6:30 starting at 13:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/11/2020	Vantage Point Survey	VP6	1:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/11/2020	Vantage Point Survey	VP6	1:00 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
17/11/2020	Vantage Point Survey	VP6	1:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/11/2020	Vantage Point Survey	VP5	1:00 starting at 11:10	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
23/11/2020	Vantage Point Survey	VP5	1:00 starting at 12:10	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/11/2020	Vantage Point Survey	VP5	1:00 starting at 13:10	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
25/11/2020	Vantage Point Survey	VP2	1:00 starting at 10:50	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
25/11/2020	Vantage Point Survey	VP2	1:00 starting at 11:50	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
25/11/2020	Vantage Point Survey	VP2	1:00 starting at 12:50	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
26/11/2020	Vantage Point Survey	VP4	1:00 starting at 10:30	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
26/11/2020	Vantage Point Survey	VP4	1:00 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
26/11/2020	Vantage Point Survey	VP4	1:00 starting at 12:30	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	To make up for missed oct hours	JH
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 10:45	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 11:45	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 12:45	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 14:15	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 15:15	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH
07/12/2020	Vantage Point Survey	VP5	1:00 starting at 16:15	Visibility: none; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	Heavy lingering fog	JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 10:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 11:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 12:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 14:15	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: light showers; Frost: none; Snow: none		JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 15:15	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
08/12/2020	Vantage Point Survey	VP2	1:00 starting at 16:15	Visibility: poor; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 11:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 12:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 14:10	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 15:10	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
10/12/2020	Vantage Point Survey	VP1	1:00 starting at 16:10	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 10:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 11:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 12:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 14:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 15:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
14/12/2020	Vantage Point Survey	VP3	1:00 starting at 16:10	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 10:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 11:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 12:40	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 14:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 15:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
15/12/2020	Vantage Point Survey	VP4	1:00 starting at 16:10	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 10:40	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 11:40	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 12:40	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 14:10	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 15:10	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
16/12/2020	Vantage Point Survey	VP6	1:00 starting at 16:10	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/01/2021	Vantage Point Survey	VP5	1:00 starting at 11:00	Visibility: moderate; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JH
12/01/2021	Vantage Point Survey	VP5	1:00 starting at 12:00	Visibility: poor; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
12/01/2021	Vantage Point Survey	VP5	1:00 starting at 13:00	Visibility: poor; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
13/01/2021	Vantage Point Survey	VP5	1:00 starting at 07:30	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
13/01/2021	Vantage Point Survey	VP5	1:00 starting at 08:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
13/01/2021	Vantage Point Survey	VP5	1:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 07:30	Visibility: moderate; Wind speed and direction: light air SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 08:30	Visibility: good; Wind speed and direction: light air SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 09:30	Visibility: good; Wind speed and direction: light air SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		JH
15/01/2021	Vantage Point Survey	VP1	1:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
18/01/2021	Vantage Point Survey	VP3	1:00 starting at 09:50	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/01/2021	Vantage Point Survey	VP3	1:00 starting at 10:50	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
18/01/2021	Vantage Point Survey	VP3	1:00 starting at 11:50	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
20/01/2021	Vantage Point Survey	VP3	1:00 starting at 07:30	Visibility: poor; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
20/01/2021	Vantage Point Survey	VP3	1:00 starting at 08:30	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
20/01/2021	Vantage Point Survey	VP3	1:00 starting at 09:30	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 07:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/01/2021	Vantage Point Survey	VP2	1:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 07:23	Visibility: poor; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 08:23	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 09:23	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 10:53	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 11:53	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/01/2021	Vantage Point Survey	VP4	1:00 starting at 12:53	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
27/01/2021	Vantage Point Survey	VP6	1:00 starting at 07:20	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
27/01/2021	Vantage Point Survey	VP6	1:00 starting at 08:20	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
27/01/2021	Vantage Point Survey	VP6	1:00 starting at 09:20	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
27/01/2021	Vantage Point Survey	VP6	1:00 starting at 10:50	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
27/01/2021	Vantage Point Survey	VP6	1:00 starting at 11:50	Visibility: poor; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
27/01/2021	#REF!	VP6	1:00 starting at 12:50	Visibility: poor; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 11:45	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 12:45	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 13:45	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 15:15	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 16:15	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
03/02/2021	Vantage Point Survey	VP1	1:00 starting at 17:15	Visibility: limited; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 13:00	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 14:00	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 15:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 16:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/02/2021	Vantage Point Survey	VP2	1:00 starting at 17:30	Visibility: poor; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/02/2021	Vantage Point Survey	VP3	1:00 starting at 09:50	Visibility: moderate; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/02/2021	Vantage Point Survey	VP3	1:00 starting at 10:50	Visibility: moderate; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/02/2021	Vantage Point Survey	VP3	1:00 starting at 11:50	Visibility: moderate; Wind speed and direction: near gale SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
15/02/2021	Vantage Point Survey	VP3	1:00 starting at 15:40	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
15/02/2021	Vantage Point Survey	VP3	1:00 starting at 16:40	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
15/02/2021	Vantage Point Survey	VP3	1:00 starting at 17:40	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 12:10	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 13:10	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 14:10	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 15:40	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 16:40	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
16/02/2021	Vantage Point Survey	VP4	1:00 starting at 17:40	Visibility: poor; Wind speed and direction: moderate breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 12:15	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 13:15	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 14:15	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 15:45	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 16:45	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
17/02/2021	Vantage Point Survey	VP5	1:00 starting at 17:45	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 12:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 13:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 14:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 15:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 16:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/02/2021	Vantage Point Survey	VP6	1:00 starting at 17:55	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/02/2021	Vantage Point Survey	VP6	1:00 starting at 09:45	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	to make up for missed hours in Oct	JH
26/02/2021	Vantage Point Survey	VP6	1:00 starting at 10:45	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	to make up for missed hours in Oct	JH
26/02/2021	Vantage Point Survey	VP6	1:00 starting at 11:45	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	to make up for missed hours in Oct	JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 06:15	Visibility: limited; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Heavy fog	JH
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 07:15	Visibility: limited; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Heavy fog	JH
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 08:15	Visibility: poor; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Lingering Fog	JH
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 09:45	Visibility: poor; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Lingering Fog	JH
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 10:45	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Lingering Fog	JH
02/03/2021	Vantage Point Survey	VP1	1:00 starting at 11:45	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Lingering Fog	JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 06:20	Visibility: poor; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 07:20	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 08:20	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 09:50	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 10:50	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
04/03/2021	Vantage Point Survey	VP2	1:00 starting at 11:50	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 06:00	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 08:00	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 10:30	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/03/2021	Vantage Point Survey	VP3	1:00 starting at 11:30	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 05:56	Visibility: poor; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 06:56	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 07:56	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 09:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 10:30	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
10/03/2021	Vantage Point Survey	VP4	1:00 starting at 11:30	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
11/03/2021	Vantage Point Survey	VP5	1:00 starting at 09:30	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
11/03/2021	Vantage Point Survey	VP5	1:00 starting at 10:30	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
11/03/2021	Vantage Point Survey	VP5	1:00 starting at 11:30	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 05:55	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 06:55	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 07:55	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 09:25	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 10:25	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
12/03/2021	Vantage Point Survey	VP6	1:00 starting at 11:25	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
15/03/2021	Vantage Point Survey	VP5	1:00 starting at 05:50	Visibility: limited; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
15/03/2021	Vantage Point Survey	VP5	1:00 starting at 06:50	Visibility: limited; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Low lying fog	JH
15/03/2021	Vantage Point Survey	VP5	1:00 starting at 07:50	Visibility: poor; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
18/03/2021	Vantage Point Survey	VP2	3:00 starting at 16:25	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% ; Rain: none; Frost: none; Snow: none	To make up for missed Oct surveys	PT
21/03/2021	Vantage Point Survey	VP4	3:00 starting at 16:30	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% ; Rain: none; Frost: none; Snow: none	To make up for missed October surveys. no target species	PT
25/03/2021	Vantage Point Survey	VP3	3:00 starting at 16:40	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% ; Rain: none; Frost: none; Snow: none	To make up for missed October surveys. dry apart from shower at 1740	PT
30/03/2021	Vantage Point Survey	VP1	3:00 starting at 17:47	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 1% ; Rain: none; Frost: none; Snow: none	To make up for missed October surveys	PT
23/04/2021	Vantage Point Survey	VP4	3:00 starting at 13:30	Visibility: good; Wind speed and direction: gentle breeze ESE; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		SF
26/04/2021	Vantage Point Survey	VP3	3:00 starting at 13:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0% >500m; Rain: none; Frost: none; Snow: none		SF
27/04/2021	Vantage Point Survey	VP5	3:00 starting at 13:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 80% >500m; Rain: drizzle; Frost: none; Snow: none		SF
28/04/2021	Vantage Point Survey	VP2	3:00 starting at 13:30	Visibility: good; Wind speed and direction: moderate breeze NNE; Cloud cover and height: 80% >500m; Rain: none; Frost: none; Snow: none		SF

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
29/04/2021	Vantage Point Survey	VP1	3:00 starting at 13:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 80% >500m; Rain: none; Frost: none; Snow: none		SF
30/04/2021	Vantage Point Survey	VP6	3:00 starting at 13:30	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 95% >500m; Rain: none; Frost: none; Snow: none		SF
13/05/2021	Vantage Point Survey	VP1	0:40 starting at 04:50	Visibility: limited; Wind speed and direction: light air N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	dark misty	SOB
13/05/2021	Vantage Point Survey	VP1	0:30 starting at 05:30	Visibility: poor; Wind speed and direction: light air N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	more bright stoll misty	SOB
13/05/2021	Vantage Point Survey	VP1	0:30 starting at 06:00	Visibility: limited; Wind speed and direction: light air N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	glare plus mist	SOB
13/05/2021	Vantage Point Survey	VP1	0:40 starting at 06:30	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	glare and mist decrease	SOB
13/05/2021	Vantage Point Survey	VP1	0:40 starting at 07:10	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
13/05/2021	Vantage Point Survey	VP1	3:00 starting at 08:20	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	sliggt haze in distance	SOB
21/05/2021	Vantage Point Survey	VP6	0:20 starting at 04:30	Visibility: limited; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none	very dark	SOB
21/05/2021	Vantage Point Survey	VP6	1:00 starting at 04:50	Visibility: poor; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none	visibility improved but still raining	SOB
21/05/2021	Vantage Point Survey	VP6	0:30 starting at 05:50	Visibility: poor; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		SOB
21/05/2021	Vantage Point Survey	VP6	0:30 starting at 06:20	Visibility: poor; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		SOB
21/05/2021	Vantage Point Survey	VP6	0:40 starting at 06:50	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
21/05/2021	Vantage Point Survey	VP6	3:00 starting at 08:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
25/05/2021	Vantage Point Survey	VP2	0:30 starting at 05:00	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/05/2021	Vantage Point Survey	VP2	2:30 starting at 05:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
25/05/2021	Vantage Point Survey	VP2	1:00 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
25/05/2021	Vantage Point Survey	VP2	1:00 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% <150m; Rain: light showers; Frost: none; Snow: none		SOB
25/05/2021	Vantage Point Survey	VP2	1:00 starting at 10:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
26/05/2021	Vantage Point Survey	VP5	0:40 starting at 04:50	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	bright and clear. Started late	SOB
26/05/2021	Vantage Point Survey	VP5	1:20 starting at 05:30	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	sun rises in view some glare	SOB
26/05/2021	Vantage Point Survey	VP5	1:00 starting at 06:50	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SOB
26/05/2021	Vantage Point Survey	VP5	2:30 starting at 08:20	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 04:30	Visibility: poor; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	darkish and misty	SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 05:00	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	glare	SOB
27/05/2021	Vantage Point Survey	VP3	2:00 starting at 05:30	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	glare	SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 08:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 08:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% ; Rain: none; Frost: none; Snow: none		SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% ; Rain: none; Frost: none; Snow: none		SOB
27/05/2021	Vantage Point Survey	VP3	1:00 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% ; Rain: none; Frost: none; Snow: none		SOB
27/05/2021	Vantage Point Survey	VP3	0:30 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% ; Rain: none; Frost: none; Snow: none		SOB
28/05/2021	Vantage Point Survey	VP4	0:30 starting at 04:30	Visibility: poor; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		SOB
28/05/2021	Vantage Point Survey	VP4	1:00 starting at 05:00	Visibility: moderate; Wind speed and direction: light air W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
28/05/2021	Vantage Point Survey	VP4	1:00 starting at 06:00	Visibility: good; Wind speed and direction: light air W; Cloud cover and height: 66-100% 150-500m; Rain: ; Frost: none; Snow: none		SOB
28/05/2021	Vantage Point Survey	VP4	1:00 starting at 07:30	Visibility: poor; Wind speed and direction: light air W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	mist moved in with rain	SOB
28/05/2021	Vantage Point Survey	VP4	2:30 starting at 08:30	Visibility: good; Wind speed and direction: light air W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	weather cleared up	SOB
03/06/2021	Vantage Point Survey	VP1	0:45 starting at 13:15	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	1:00 starting at 14:00	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	slight heat haze in distance	SOB
03/06/2021	Vantage Point Survey	VP1	1:15 starting at 15:00	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	0:15 starting at 16:45	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: drizzle; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	0:30 starting at 17:00	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: light showers; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	1:00 starting at 17:30	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	1:15 starting at 18:30	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: light showers; Frost: none; Snow: none		SOB
03/06/2021	Vantage Point Survey	VP1	0:00 starting at 19:15	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
08/06/2021	Vantage Point Survey	VP6	1:30 starting at 13:00	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	heat haze in distance	SOB
08/06/2021	Vantage Point Survey	VP6	0:30 starting at 14:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	heat gaze gone	SOB
08/06/2021	Vantage Point Survey	VP6	1:00 starting at 15:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	half hour break	SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
08/06/2021	Vantage Point Survey	VP6	1:00 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
08/06/2021	Vantage Point Survey	VP6	1:00 starting at 17:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
08/06/2021	Vantage Point Survey	VP6	1:00 starting at 18:30	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
14/06/2021	Vantage Point Survey	VP2	2:15 starting at 15:45	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		SOB
14/06/2021	Vantage Point Survey	VP2	0:45 starting at 18:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	wind died down	SOB
14/06/2021	Vantage Point Survey	VP2	2:30 starting at 19:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	took shorter break due to time constraints	SOB
14/06/2021	Vantage Point Survey	VP2	0:30 starting at 21:30	Visibility: moderate; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	sun setting	SOB
22/06/2021	Vantage Point Survey	VP3	2:05 starting at 15:45	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
22/06/2021	Vantage Point Survey	VP3	1:10 starting at 17:50	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	starts to drizzle	SOB
22/06/2021	Vantage Point Survey	VP3	0:30 starting at 19:30	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	took 30 min break	SOB
22/06/2021	Vantage Point Survey	VP3	1:50 starting at 20:00	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		SOB
22/06/2021	Vantage Point Survey	VP3	0:25 starting at 21:50	Visibility: poor; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	less visibility as sun set	SOB
23/06/2021	Vantage Point Survey	VP4	2:00 starting at 14:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	cloudy but visibility still good	SOB
23/06/2021	Vantage Point Survey	VP4	0:30 starting at 16:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	wind picked up	SOB
23/06/2021	Vantage Point Survey	VP4	3:15 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
23/06/2021	Vantage Point Survey	VP4	0:45 starting at 19:45	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/06/2021	Vantage Point Survey	VP5	0:30 starting at 04:45	Visibility: poor; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	sky dark	SOB
25/06/2021	Vantage Point Survey	VP5	0:45 starting at 05:15	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	light levels increase	SOB
25/06/2021	Vantage Point Survey	VP5	2:00 starting at 06:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
25/06/2021	Vantage Point Survey	VP5	3:15 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	tablet ran out of battery so took screenshots of maps on phone and drew flightlines on screenshots and recorded notes on phone	SOB
01/07/2021	Vantage Point Survey	VP1	3:00 starting at 15:30	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/07/2021	Vantage Point Survey	VP1	3:00 starting at 19:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	as temperature decreased heat haze improved	SOB
05/07/2021	Vantage Point Survey	VP1	3:00 starting at 20:00	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
06/07/2021	Vantage Point Survey	VP2	3:00 starting at 20:00	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
07/07/2021	Vantage Point Survey	VP3	3:00 starting at 20:00	Visibility: good; Wind speed and direction: light air S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
08/07/2021	Vantage Point Survey	VP4	3:00 starting at 20:00	Visibility: good; Wind speed and direction: light air NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
09/07/2021	Vantage Point Survey	VP5	3:00 starting at 19:50	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No Target Species Observed	JG
12/07/2021	Vantage Point Survey	VP6	3:00 starting at 19:45	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JG
13/07/2021	Vantage Point Survey	VP5	3:00 starting at 11:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
13/07/2021	Vantage Point Survey	VP5	1:15 starting at 15:15	Visibility: poor; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	after break temperature rose and heat haze is in distance	SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
13/07/2021	Vantage Point Survey	VP5	1:45 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	cloud cover decreased, brightness increases	SOB
14/07/2021	Vantage Point Survey	VP3	3:00 starting at 12:15	Visibility: moderate; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	slight heat haze. Very bright	SOB
14/07/2021	Vantage Point Survey	VP3	3:00 starting at 15:45	Visibility: moderate; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	took half hour break	SOB
15/07/2021	Vantage Point Survey	VP4	3:00 starting at 12:00	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	overcast and heat haze	SOB
15/07/2021	Vantage Point Survey	VP4	1:30 starting at 15:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	took break	SOB
15/07/2021	Vantage Point Survey	VP4	1:30 starting at 17:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	less overcast, more bright	SOB
28/07/2021	Vantage Point Survey	VP2	0:20 starting at 12:50	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	fairly bright but heavy clouds incoming. Had to take cover from thunder after 15 mins. Counting that time as break.	SOB
28/07/2021	Vantage Point Survey	VP2	0:40 starting at 13:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	got another 30 mjns of obs done, before taking shelter again from bad weather	SOB
28/07/2021	Vantage Point Survey	VP2	0:30 starting at 14:35	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Vantage Point Survey	VP2	3:40 starting at 17:10	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Vantage Point Survey	VP2	0:35 starting at 20:50	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Vantage Point Survey	VP2	0:15 starting at 21:25	Visibility: poor; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Vantage Point Survey	VP2		Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
30/07/2021	Vantage Point Survey	VP6	1:45 starting at 11:45	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/07/2021	Vantage Point Survey	VP6	1:15 starting at 13:30	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
30/07/2021	Vantage Point Survey	VP6	0:30 starting at 15:15	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
30/07/2021	Vantage Point Survey	VP6	0:25 starting at 15:45	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		SOB
30/07/2021	Vantage Point Survey	VP6	0:20 starting at 16:10	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		SOB
30/07/2021	Vantage Point Survey	VP6	1:45 starting at 16:30	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
11/08/2021	Vantage Point Survey	VP1	3:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	bright dry day with good visibility	SOB
11/08/2021	Vantage Point Survey	VP1	1:00 starting at 15:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	took half hour break. Some heat waves in distance	SOB
11/08/2021	Vantage Point Survey	VP1	2:00 starting at 16:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none	less cloud cover and brighter	SOB
12/08/2021	Vantage Point Survey	VP5	2:25 starting at 11:15	Visibility: moderate; Wind speed and direction: near gale N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	very windy day. Dry but threatening to rain. Slight heat haze	SOB
12/08/2021	Vantage Point Survey	VP5	1:45 starting at 14:45	Visibility: moderate; Wind speed and direction: N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	took break early due to rain. Also talked to local on way back to site which is why break was longer than 30 mins. Rain cleared up	SOB
12/08/2021	Vantage Point Survey	VP5	1:10 starting at 16:30	Visibility: moderate; Wind speed and direction: strong breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
12/08/2021	Vantage Point Survey	VP5	0:40 starting at 17:40	Visibility: moderate; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
17/08/2021	Vantage Point Survey	VP3	1:30 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	cloudy but dry and bright	SOB
17/08/2021	Vantage Point Survey	VP3	0:20 starting at 12:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Drizzle began and visibility decreases with mist	SOB
17/08/2021	Vantage Point Survey	VP3	0:40 starting at 12:50	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	rain stopped	SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/08/2021	Vantage Point Survey	VP3	0:30 starting at 13:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		SOB
17/08/2021	Vantage Point Survey	VP3	0:30 starting at 14:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	after half hour break it was drizzling	SOB
17/08/2021	Vantage Point Survey	VP3	2:30 starting at 15:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	weather cleared up, better visibility	SOB
18/08/2021	Vantage Point Survey	VP2	0:50 starting at 12:40	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		SOB
18/08/2021	Vantage Point Survey	VP2	0:30 starting at 13:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
18/08/2021	Vantage Point Survey	VP2	1:55 starting at 14:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
18/08/2021	Vantage Point Survey	VP2	0:15 starting at 16:25	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
18/08/2021	Vantage Point Survey	VP2	1:35 starting at 16:40	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		SOB
18/08/2021	Vantage Point Survey	VP2	0:55 starting at 18:15	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: ; Snow:		SOB
24/08/2021	Vantage Point Survey	VP6	3:00 starting at 12:45	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none	bright dry day with good visibility	SOB
24/08/2021	Vantage Point Survey	VP6	0:45 starting at 16:15	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		SOB
24/08/2021	Vantage Point Survey	VP6	2:15 starting at 17:00	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		SOB
25/08/2021	Vantage Point Survey	VP4	0:30 starting at 13:30	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
25/08/2021	Vantage Point Survey	VP4	2:30 starting at 14:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
25/08/2021	Vantage Point Survey	VP4	2:00 starting at 17:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		SOB
25/08/2021	Vantage Point Survey	VP4	1:00 starting at 19:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
02/09/2021	Vantage Point Survey	VP1	3:00 starting at 15:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
02/09/2021	Vantage Point Survey	VP1	1:25 starting at 18:20	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
02/09/2021	Vantage Point Survey	VP1	0:45 starting at 19:45	Visibility: moderate; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
02/09/2021	Vantage Point Survey	VP1	0:20 starting at 20:30	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
02/09/2021	Vantage Point Survey	VP1	0:30 starting at 20:50	Visibility: limited; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/09/2021	Vantage Point Survey	VP5	3:10 starting at 14:50	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	was monitoring a kestrel, so continued on 10 mins longer. Also saw 4 black backed gulls	SOB
03/09/2021	Vantage Point Survey	VP5	1:50 starting at 18:30	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	kestrel seen	SOB
03/09/2021	Vantage Point Survey	VP5	0:30 starting at 20:00	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/09/2021	Vantage Point Survey	VP5	0:20 starting at 20:30	Visibility: poor; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
03/09/2021	Vantage Point Survey	VP5	0:30 starting at 20:50	Visibility: limited; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:45 starting at 14:45	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:15 starting at 15:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% <150m; Rain: heavy showers; Frost: none; Snow: none	thundery downpour. Repositioned the survey point and van. Conducted survey next to and inside (during thundery spells) van	SOB
09/09/2021	Vantage Point Survey	VP2	1:20 starting at 15:55	Visibility: good; Wind speed and direction: light air NW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:40 starting at 17:15	Visibility: good; Wind speed and direction: light air NW; Cloud cover and height: 33-66% <150m; Rain: drizzle; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/09/2021	Vantage Point Survey	VP2	0:25 starting at 18:15	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 33-66% <150m; Rain: light showers; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	1:05 starting at 18:40	Visibility: good; Wind speed and direction: light air NE; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:45 starting at 19:45	Visibility: moderate; Wind speed and direction: light air NE; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:30 starting at 20:30	Visibility: poor; Wind speed and direction: light air NE; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
09/09/2021	Vantage Point Survey	VP2	0:15 starting at 21:00	Visibility: limited; Wind speed and direction: light air NE; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	heavy mist rolled continued to get darker	SOB
15/09/2021	Vantage Point Survey	VP6	3:00 starting at 14:15	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
15/09/2021	Vantage Point Survey	VP6	2:15 starting at 17:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
15/09/2021	Vantage Point Survey	VP6	0:15 starting at 20:00	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
15/09/2021	Vantage Point Survey	VP6	0:15 starting at 20:15	Visibility: poor; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
15/09/2021	Vantage Point Survey	VP6	0:15 starting at 20:30	Visibility: limited; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
16/09/2021	Vantage Point Survey	VP3	3:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
16/09/2021	Vantage Point Survey	VP3	2:45 starting at 17:15	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
16/09/2021	Vantage Point Survey	VP3	0:15 starting at 20:00	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
16/09/2021	Vantage Point Survey	VP3	0:15 starting at 20:15	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
16/09/2021	Vantage Point Survey	VP3	0:15 starting at 20:30	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		SOB
22/09/2021	Vantage Point Survey	VP4	3:00 starting at 13:40	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SOB
22/09/2021	Vantage Point Survey	VP4	0:50 starting at 17:10	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/09/2021	Vantage Point Survey	VP4	1:30 starting at 18:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
22/09/2021	Vantage Point Survey	VP4	0:20 starting at 19:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
22/09/2021	Vantage Point Survey	VP4	0:20 starting at 19:50	Visibility: poor; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
07/10/2021	Vantage Point Survey	VP1	3:00 starting at 07:00	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/10/2021	Vantage Point Survey	VP1	3:00 starting at 10:30	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/10/2021	Vantage Point Survey	VP2	3:00 starting at 07:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
08/10/2021	Vantage Point Survey	VP2	3:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/10/2021	Vantage Point Survey	VP3	3:00 starting at 07:14	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
18/10/2021	Vantage Point Survey	VP3	3:00 starting at 11:30	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/10/2021	Vantage Point Survey	VP4	3:00 starting at 07:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none	Drizzle until 09.00 am.	CR
19/10/2021	Vantage Point Survey	VP4	3:00 starting at 11:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Digger on site from 12:00 pm onwards.	CR
20/10/2021	Vantage Point Survey	VP5	3:00 starting at 07:16	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/10/2021	Vantage Point Survey	VP5	3:00 starting at 10:55	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/10/2021	Vantage Point Survey	VP6	3:00 starting at 07:28	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/10/2021	Vantage Point Survey	VP6	3:00 starting at 11:05	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
01/11/2021	Vantage Point Survey	VP1	2:00 starting at 10:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
01/11/2021	Vantage Point Survey	VP1	1:00 starting at 13:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
01/11/2021	Vantage Point Survey	VP1	3:00 starting at 15:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
02/11/2021	Vantage Point Survey	VP2	3:00 starting at 11:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
02/11/2021	Vantage Point Survey	VP2	3:00 starting at 15:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
03/11/2021	Vantage Point Survey	VP3	3:00 starting at 11:28	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/11/2021	Vantage Point Survey	VP3	3:00 starting at 14:58	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none	Light showers between 15:10 and 15:50.	CR
04/11/2021	Vantage Point Survey	VP4	3:00 starting at 11:26	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
04/11/2021	Vantage Point Survey	VP4	0:51 starting at 14:56	Visibility: moderate; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		CR
04/11/2021	Vantage Point Survey	VP4	2:09 starting at 15:47	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
05/11/2021	Vantage Point Survey	VP5	3:00 starting at 11:21	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/11/2021	Vantage Point Survey	VP5	3:00 starting at 14:51	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/11/2021	Vantage Point Survey	VP6	3:00 starting at 11:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/11/2021	Vantage Point Survey	VP6	3:00 starting at 14:45	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/12/2021	Vantage Point Survey	VP5	3:00 starting at 07:45	Visibility: good; Wind speed and direction: near gale NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
01/12/2021	Vantage Point Survey	VP5	3:00 starting at 11:15	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
02/12/2021	Vantage Point Survey	VP1	3:00 starting at 07:47	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Rail construction on site until 09.10 am.	CR
02/12/2021	Vantage Point Survey	VP1	3:00 starting at 11:17	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Mist from 13:15 pm.	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
03/12/2021	Vantage Point Survey	VP2	3:00 starting at 07:50	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
03/12/2021	Vantage Point Survey	VP2	3:00 starting at 11:22	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
06/12/2021	Vantage Point Survey	VP3	3:00 starting at 07:49	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
06/12/2021	Vantage Point Survey	VP3	3:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: drizzle; Frost: none; Snow: none		CR
10/12/2021	Vantage Point Survey	VP4	3:00 starting at 07:52	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
10/12/2021	Vantage Point Survey	VP4	3:00 starting at 11:25	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
13/12/2021	Vantage Point Survey	VP6	3:00 starting at 07:49	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/12/2021	Vantage Point Survey	VP6	3:00 starting at 11:19	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
05/01/2022	Vantage Point Survey	VP5	3:00 starting at 11:09	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/01/2022	Vantage Point Survey	VP5	3:00 starting at 14:39	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
10/01/2022	Vantage Point Survey	VP2	3:00 starting at 11:15	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/01/2022	Vantage Point Survey	VP2	3:00 starting at 14:45	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/01/2022	Vantage Point Survey	VP3	3:00 starting at 11:21	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
19/01/2022	Vantage Point Survey	VP3	3:00 starting at 14:52	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/01/2022	Vantage Point Survey	VP4	3:00 starting at 11:22	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/01/2022	Vantage Point Survey	VP4	3:00 starting at 14:52	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
25/01/2022	Vantage Point Survey	VP1	3:00 starting at 11:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		CR
25/01/2022	Vantage Point Survey	VP1	3:00 starting at 15:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/01/2022	Vantage Point Survey	VP6	2:00 starting at 12:30	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		AOD
26/01/2022	Vantage Point Survey	VP6	3:00 starting at 15:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		AOD
03/02/2022	Vantage Point Survey	VP1	2:00 starting at 08:00	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
03/02/2022	Vantage Point Survey	VP1	0:30 starting at 10:00	Visibility: poor; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		NS
03/02/2022	Vantage Point Survey	VP1	0:30 starting at 10:30	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
03/02/2022	Vantage Point Survey	VP1	1:00 starting at 11:30	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		NS
03/02/2022	Vantage Point Survey	VP1	2:00 starting at 12:30	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
21/02/2022	Vantage Point Survey	VP5	0:25 starting at 06:35	Visibility: limited; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction WNW	NS
21/02/2022	Vantage Point Survey	VP5	2:35 starting at 07:00	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction WNW	NS
21/02/2022	Vantage Point Survey	VP5	3:00 starting at 10:05	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	Wind direction WNW	NS
22/02/2022	Vantage Point Survey	VP2	0:40 starting at 06:30	Visibility: poor; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
22/02/2022	Vantage Point Survey	VP2	2:20 starting at 07:10	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		NS
22/02/2022	Vantage Point Survey	VP2	3:00 starting at 10:00	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
25/02/2022	Vantage Point Survey	VP4	3:00 starting at 06:25	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: light; Snow: none	Wind direction SSW	NS
25/02/2022	Vantage Point Survey	VP4	1:35 starting at 09:55	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
25/02/2022	Vantage Point Survey	VP4	1:25 starting at 11:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		NS
28/02/2022	Vantage Point Survey	VP3	3:00 starting at 06:15	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
28/02/2022	Vantage Point Survey	VP3	3:00 starting at 09:45	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		NS
01/03/2022	Vantage Point Survey	VP6	3:00 starting at 06:20	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: light; Snow: none	Wind direction ENE	NS
01/03/2022	Vantage Point Survey	VP6	3:00 starting at 09:50	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		NS
08/03/2022	Vantage Point Survey	VP5	3:00 starting at 12:56	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/03/2022	Vantage Point Survey	VP5	3:00 starting at 16:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
09/03/2022	Vantage Point Survey	VP3	3:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/03/2022	Vantage Point Survey	VP3	3:00 starting at 16:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/03/2022	Vantage Point Survey	VP6	3:00 starting at 13:00	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none	Heavy shower from 13:15 to 13:45	NS
11/03/2022	Vantage Point Survey	VP6	3:00 starting at 16:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none	Heavy shower from 16:30 to 17:07	NS
14/03/2022	Vantage Point Survey	VP1	3:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		NS
14/03/2022	Vantage Point Survey	VP4	3:00 starting at 13:05	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/03/2022	Vantage Point Survey	VP1	3:00 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		NS
14/03/2022	Vantage Point Survey	VP4	3:00 starting at 16:36	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
15/03/2022	Vantage Point Survey	VP2	3:00 starting at 11:15	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
15/03/2022	Vantage Point Survey	VP2	3:00 starting at 14:45	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/04/2022	Vantage Point Survey	VP6	3:00 starting at 05:30	Visibility: good; Wind speed and direction: near gale NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
07/04/2022	Vantage Point Survey	VP6	3:00 starting at 09:00	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
11/04/2022	Vantage Point Survey	VP3	3:00 starting at 05:50	Visibility: moderate; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
11/04/2022	Vantage Point Survey	VP3	3:00 starting at 09:20	Visibility: good; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none	Wind direction ESE	NS
13/04/2022	Vantage Point Survey	VP5	3:00 starting at 05:30	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
13/04/2022	Vantage Point Survey	VP5	3:00 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
19/04/2022	Vantage Point Survey	VP4	3:00 starting at 05:25	Visibility: moderate; Wind speed and direction: SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: light; Snow: none	Wind direction ESE. Very foggy in early morning. At 07:23 still very thick fog. Cannot see past tree line in front of VP.	NS
19/04/2022	Vantage Point Survey	VP4	3:00 starting at 08:55	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
21/04/2022	Vantage Point Survey	VP2	3:00 starting at 05:20	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
21/04/2022	Vantage Point Survey	VP2	3:00 starting at 08:50	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Wind direction ESE	NS
29/04/2022	Vantage Point Survey	VP1	3:00 starting at 04:55	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
29/04/2022	Vantage Point Survey	VP1	3:00 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
04/05/2022	Vantage Point Survey	VP5	3:00 starting at 19:05	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/05/2022	Vantage Point Survey	VP1	3:00 starting at 19:34	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
25/05/2022	Vantage Point Survey	VP2	3:00 starting at 19:37	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/05/2022	Vantage Point Survey	VP6	3:00 starting at 19:40	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
31/05/2022	Vantage Point Survey	VP3	3:00 starting at 19:46	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
03/06/2022	Vantage Point Survey	VP5	3:00 starting at 13:15	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
03/06/2022	Vantage Point Survey	VP5	3:00 starting at 16:45	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
08/06/2022	Vantage Point Survey	VP4	3:00 starting at 20:06	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/06/2022	Vantage Point Survey	VP1	3:00 starting at 13:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/06/2022	Vantage Point Survey	VP1	3:00 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/06/2022	Vantage Point Survey	VP2	3:00 starting at 13:01	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/06/2022	Vantage Point Survey	VP2	3:00 starting at 16:31	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/06/2022	Vantage Point Survey	VP6	3:00 starting at 13:45	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/06/2022	Vantage Point Survey	VP6	3:00 starting at 17:15	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/06/2022	Vantage Point Survey	VP3	3:00 starting at 12:45	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/06/2022	Vantage Point Survey	VP3	3:00 starting at 16:15	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
23/06/2022	Vantage Point Survey	VP4	3:00 starting at 12:47	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
23/06/2022	Vantage Point Survey	VP4	3:00 starting at 16:22	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/07/2022	Vantage Point Survey	VP5	3:00 starting at 13:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/07/2022	Vantage Point Survey	VP5	3:00 starting at 17:15	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/07/2022	Vantage Point Survey	VP6	3:00 starting at 14:10	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/07/2022	Vantage Point Survey	VP6	3:00 starting at 17:40	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/07/2022	Vantage Point Survey	VP3	3:00 starting at 10:37	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
13/07/2022	Vantage Point Survey	VP3	3:00 starting at 14:07	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/07/2022	Vantage Point Survey	VP4	3:00 starting at 14:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/07/2022	Vantage Point Survey	VP4	3:00 starting at 17:30	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
25/07/2022	Vantage Point Survey	VP1	3:00 starting at 14:04	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
25/07/2022	Vantage Point Survey	VP1	3:00 starting at 17:34	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/07/2022	Vantage Point Survey	VP2	3:00 starting at 12:40	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/07/2022	Vantage Point Survey	VP2	3:00 starting at 16:15	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/08/2022	Vantage Point Survey	VP5	3:00 starting at 16:55	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/08/2022	Vantage Point Survey	VP3	3:00 starting at 13:40	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/08/2022	Vantage Point Survey	VP3	3:00 starting at 17:10	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/08/2022	Vantage Point Survey	VP4	3:00 starting at 13:11	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
05/08/2022	Vantage Point Survey	VP4	3:00 starting at 16:41	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/08/2022	Vantage Point Survey	VP2	3:00 starting at 14:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
09/08/2022	Vantage Point Survey	VP1	3:00 starting at 13:06	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
09/08/2022	Vantage Point Survey	VP1	3:00 starting at 16:36	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/08/2022	Vantage Point Survey	VP6	4:00 starting at 16:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
16/08/2022	Vantage Point Survey	VP5	3:00 starting at 12:56	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/08/2022	Vantage Point Survey	VP5	3:00 starting at 16:26	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/08/2022	Vantage Point Survey	VP4	3:00 starting at 14:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/08/2022	Vantage Point Survey	VP3	3:00 starting at 12:54	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
23/08/2022	Vantage Point Survey	VP2	3:00 starting at 14:02	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/08/2022	Vantage Point Survey	VP2	3:00 starting at 17:45	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
25/08/2022	Vantage Point Survey	VP1	3:00 starting at 15:35	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/08/2022	Vantage Point Survey	VP6	3:00 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
26/08/2022	Vantage Point Survey	VP6	3:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
02/09/2022	Vantage Point Survey	VP5	3:00 starting at 14:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/09/2022	Vantage Point Survey	VP5	3:00 starting at 18:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/09/2022	Vantage Point Survey	VP4	3:00 starting at 14:44	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/09/2022	Vantage Point Survey	VP4	3:00 starting at 18:14	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
05/09/2022	Vantage Point Survey	VP6	3:00 starting at 14:43	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/09/2022	Vantage Point Survey	VP6	3:00 starting at 18:13	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/09/2022	Vantage Point Survey	VP3	3:00 starting at 14:41	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/09/2022	Vantage Point Survey	VP3	3:00 starting at 18:11	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/09/2022	Vantage Point Survey	VP2	3:00 starting at 14:36	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/09/2022	Vantage Point Survey	VP2	3:00 starting at 18:06	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/09/2022	Vantage Point Survey	VP1	3:00 starting at 14:33	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
13/09/2022	Vantage Point Survey	VP1	3:00 starting at 18:03	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
06/10/2022	Vantage Point Survey	VP5	3:00 starting at 06:25	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/10/2022	Vantage Point Survey	VP5	3:00 starting at 09:55	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/10/2022	Vantage Point Survey	VP4	3:00 starting at 06:37	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/10/2022	Vantage Point Survey	VP4	3:00 starting at 10:07	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/10/2022	Vantage Point Survey	VP2	3:00 starting at 07:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/10/2022	Vantage Point Survey	VP2	3:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
25/10/2022	Vantage Point Survey	VP3	3:00 starting at 07:26	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
25/10/2022	Vantage Point Survey	VP3	3:00 starting at 10:56	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/10/2022	Vantage Point Survey	VP6	3:00 starting at 07:41	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/10/2022	Vantage Point Survey	VP6	0:50 starting at 11:11	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/10/2022	Vantage Point Survey	VP6	2:10 starting at 13:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/11/2022	Vantage Point Survey	VP1	3:00 starting at 06:45	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
04/11/2022	Vantage Point Survey	VP1	3:00 starting at 10:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
09/11/2022	Vantage Point Survey	VP5	3:00 starting at 11:37	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/11/2022	Vantage Point Survey	VP5	3:00 starting at 15:07	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2022	Vantage Point Survey	VP4	3:00 starting at 11:34	Visibility: good; Wind speed and direction: gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2022	Vantage Point Survey	VP4	3:00 starting at 15:04	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
14/11/2022	Vantage Point Survey	VP3	3:00 starting at 11:24	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
14/11/2022	Vantage Point Survey	VP3	3:00 starting at 14:54	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/11/2022	Vantage Point Survey	VP2	3:00 starting at 11:40	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/11/2022	Vantage Point Survey	VP2	3:00 starting at 15:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/11/2022	Vantage Point Survey	VP1	3:00 starting at 11:40	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/11/2022	Vantage Point Survey	VP1	3:00 starting at 15:10	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
17/11/2022	Vantage Point Survey	VP6	3:00 starting at 11:38	Visibility: limited; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/11/2022	Vantage Point Survey	VP6	3:00 starting at 15:08	Visibility: moderate; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/12/2022	Vantage Point Survey	VP5	3:00 starting at 07:43	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/12/2022	Vantage Point Survey	VP5	3:00 starting at 11:13	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/12/2022	Vantage Point Survey	VP4	3:00 starting at 07:34	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
06/12/2022	Vantage Point Survey	VP4	3:00 starting at 11:04	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/12/2022	Vantage Point Survey	VP3	3:00 starting at 07:44	Visibility: limited; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none		CR
08/12/2022	Vantage Point Survey	VP3	3:00 starting at 11:14	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none		CR
13/12/2022	Vantage Point Survey	VP6	3:00 starting at 07:55	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		CR
13/12/2022	Vantage Point Survey	VP6	3:00 starting at 11:25	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		CR
14/12/2022	Vantage Point Survey	VP1	3:00 starting at 07:56	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		CR
14/12/2022	Vantage Point Survey	VP1	3:00 starting at 11:26	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/12/2022	Vantage Point Survey	VP2	3:00 starting at 11:04	Visibility: moderate; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CR
11/01/2023	Vantage Point Survey	VP2	3:00 starting at 07:50	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Carry over survey from December 2022	CR
12/01/2023	Vantage Point Survey	VP5	3:00 starting at 11:40	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
12/01/2023	Vantage Point Survey	VP5	3:00 starting at 15:10	Visibility: good; Wind speed and direction: gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/01/2023	Vantage Point Survey	VP4	3:00 starting at 11:23	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/01/2023	Vantage Point Survey	VP4	3:00 starting at 14:53	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/01/2023	Vantage Point Survey	VP6	3:00 starting at 11:39	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none		CR
17/01/2023	Vantage Point Survey	VP6	3:00 starting at 15:10	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/01/2023	Vantage Point Survey	VP2	3:00 starting at 11:51	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/01/2023	Vantage Point Survey	VP2	3:00 starting at 15:21	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/01/2023	Vantage Point Survey	VP1	3:00 starting at 11:47	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/01/2023	Vantage Point Survey	VP1	3:00 starting at 15:17	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
31/01/2023	Vantage Point Survey	VP3	3:00 starting at 11:47	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
31/01/2023	Vantage Point Survey	VP3	3:00 starting at 15:17	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
02/02/2023	Vantage Point Survey	VP5	3:00 starting at 07:19	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/02/2023	Vantage Point Survey	VP5	3:00 starting at 10:50	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/02/2023	Vantage Point Survey	VP6	3:00 starting at 07:14	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/02/2023	Vantage Point Survey	VP6	3:00 starting at 10:44	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
16/02/2023	Vantage Point Survey	VP4	3:00 starting at 07:27	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
16/02/2023	Vantage Point Survey	VP4	3:00 starting at 10:57	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/02/2023	Vantage Point Survey	VP3	3:00 starting at 07:15	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
17/02/2023	Vantage Point Survey	VP3	3:00 starting at 10:45	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/02/2023	Vantage Point Survey	VP2	3:00 starting at 07:20	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/02/2023	Vantage Point Survey	VP2	3:00 starting at 10:50	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/02/2023	Vantage Point Survey	VP1	3:00 starting at 07:22	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/02/2023	Vantage Point Survey	VP1	3:00 starting at 10:52	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/03/2023	Vantage Point Survey	VP5	3:00 starting at 12:55	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/03/2023	Vantage Point Survey	VP5	3:00 starting at 16:25	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/03/2023	Vantage Point Survey	VP4	3:00 starting at 12:47	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
04/03/2023	Vantage Point Survey	VP4	3:00 starting at 16:17	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/03/2023	Vantage Point Survey	VP6	3:00 starting at 13:00	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/03/2023	Vantage Point Survey	VP6	3:00 starting at 16:30	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/03/2023	Vantage Point Survey	VP3	3:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Half day survey.	CR
29/03/2023	Vantage Point Survey	VP1	3:00 starting at 14:53	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
29/03/2023	Vantage Point Survey	VP1	3:00 starting at 18:23	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/03/2023	Vantage Point Survey	VP2	3:00 starting at 14:54	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
30/03/2023	Vantage Point Survey	VP2	3:00 starting at 18:24	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
31/03/2023	Vantage Point Survey	VP3	3:00 starting at 18:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/04/2023	Vantage Point Survey	VP4	3:00 starting at 06:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
14/04/2023	Vantage Point Survey	VP5	3:00 starting at 06:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
17/04/2023	Vantage Point Survey	VP6	3:00 starting at 06:18	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/04/2023	Vantage Point Survey	VP3	3:00 starting at 05:36	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/05/2023	Vantage Point Survey	VP2	3:00 starting at 05:35	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/05/2023	Vantage Point Survey	VP1	3:00 starting at 05:33	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/05/2023	Vantage Point Survey	VP5	3:00 starting at 19:09	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/05/2023	Vantage Point Survey	VP6	3:00 starting at 19:16	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
15/05/2023	Vantage Point Survey	VP3	3:00 starting at 19:22	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/05/2023	Vantage Point Survey	VP2	3:00 starting at 19:26	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
17/05/2023	Vantage Point Survey	VP4	3:00 starting at 19:28	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
22/05/2023	Vantage Point Survey	VP1	3:00 starting at 19:40	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
01/06/2023	Vantage Point Survey	VP5	3:00 starting at 15:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
01/06/2023	Vantage Point Survey	VP5	3:00 starting at 18:30	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
02/06/2023	Vantage Point Survey	VP2	3:00 starting at 06:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
02/06/2023	Vantage Point Survey	VP2	3:00 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
08/06/2023	Vantage Point Survey	VP4	3:00 starting at 14:33	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/06/2023	Vantage Point Survey	VP4	3:00 starting at 18:05	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/06/2023	Vantage Point Survey	VP3	3:00 starting at 17:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/06/2023	Vantage Point Survey	VP1	3:00 starting at 15:10	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/06/2023	Vantage Point Survey	VP1	3:00 starting at 18:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
16/06/2023	Vantage Point Survey	VP6	3:00 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/06/2023	Vantage Point Survey	VP6	3:00 starting at 14:10	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
23/06/2023	Vantage Point Survey	VP3	3:00 starting at 10:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/07/2023	Vantage Point Survey	VP4	3:00 starting at 13:15	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/07/2023	Vantage Point Survey	VP4	3:00 starting at 16:45	Visibility: moderate; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
06/07/2023	Vantage Point Survey	VP5	3:00 starting at 13:30	Visibility: moderate; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
06/07/2023	Vantage Point Survey	VP5	3:00 starting at 17:00	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/07/2023	Vantage Point Survey	VP3	3:00 starting at 13:05	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/07/2023	Vantage Point Survey	VP3	3:00 starting at 16:35	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2023	Vantage Point Survey	VP1	3:00 starting at 14:11	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2023	Vantage Point Survey	VP1	3:00 starting at 17:41	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/07/2023	Vantage Point Survey	VP6	3:00 starting at 10:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/07/2023	Vantage Point Survey	VP6	3:00 starting at 13:30	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/07/2023	Vantage Point Survey	VP2	3:00 starting at 14:45	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
13/07/2023	Vantage Point Survey	VP2	3:00 starting at 18:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/07/2023	Vantage Point Survey	VP3	3:00 starting at 08:25	Visibility: moderate; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
18/07/2023	Vantage Point Survey	VP3	3:00 starting at 11:55	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/07/2023	Vantage Point Survey	VP1	3:00 starting at 07:50	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
21/07/2023	Vantage Point Survey	VP1	3:00 starting at 11:20	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/07/2023	Vantage Point Survey	VP2	3:00 starting at 09:50	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/07/2023	Vantage Point Survey	VP2	3:00 starting at 13:20	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/08/2023	Vantage Point Survey	VP5	3:00 starting at 16:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/08/2023	Vantage Point Survey	VP5	3:00 starting at 19:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/08/2023	Vantage Point Survey	VP4	3:00 starting at 15:30	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/08/2023	Vantage Point Survey	VP4	3:00 starting at 19:00	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/08/2023	Vantage Point Survey	VP6	3:00 starting at 14:05	Visibility: moderate; Wind speed and direction: near gale SE; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
03/08/2023	Vantage Point Survey	VP6	3:00 starting at 17:35	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/08/2023	Vantage Point Survey	VP3	3:00 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
04/08/2023	Vantage Point Survey	VP3	3:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/08/2023	Vantage Point Survey	VP1	3:00 starting at 14:35	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
08/08/2023	Vantage Point Survey	VP1	3:00 starting at 18:05	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
10/08/2023	Vantage Point Survey	VP2	3:00 starting at 10:40	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/08/2023	Vantage Point Survey	VP2	3:00 starting at 14:10	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/08/2023	Vantage Point Survey	VP5	2:30 starting at 16:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/08/2023	Vantage Point Survey	VP5	2:30 starting at 19:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/08/2023	Vantage Point Survey	VP5	1:00 starting at 12:40	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/08/2023	Vantage Point Survey	VP6	3:00 starting at 14:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/08/2023	Vantage Point Survey	VP6	3:00 starting at 17:45	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/08/2023	Vantage Point Survey	VP4	3:00 starting at 10:00	Visibility: good; Wind speed and direction: gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/08/2023	Vantage Point Survey	VP4	3:00 starting at 13:30	Visibility: good; Wind speed and direction: gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/08/2023	Vantage Point Survey	VP6	3:00 starting at 15:40	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
18/09/2023	Vantage Point Survey	VP5	3:00 starting at 14:30	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/09/2023	Vantage Point Survey	VP5	3:00 starting at 18:00	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Dusk survey, will do a dawn survey in October.	CR
20/09/2023	Vantage Point Survey	VP4	3:00 starting at 06:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/09/2023	Vantage Point Survey	VP4	3:00 starting at 10:25	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/09/2023	Vantage Point Survey	VP3	3:00 starting at 07:00	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/09/2023	Vantage Point Survey	VP3	3:00 starting at 10:50	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
28/09/2023	Vantage Point Survey	VP2	3:00 starting at 07:10	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/09/2023	Vantage Point Survey	VP2	3:00 starting at 12:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
29/09/2023	Vantage Point Survey	VP1	3:00 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
29/09/2023	Vantage Point Survey	VP1	3:00 starting at 14:10	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
30/09/2023	Vantage Point Survey	VP6	3:00 starting at 07:06	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/10/2023	Vantage Point Survey	vp4	3:00 starting at 13:51	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/10/2023	Vantage Point Survey	vp4	3:00 starting at 17:21	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/10/2023	Vantage Point Survey	vp2	3:00 starting at 13:37	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/10/2023	Vantage Point Survey	vp2	3:00 starting at 17:07	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
13/10/2023	Vantage Point Survey	vp5	3:00 starting at 07:25	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/10/2023	Vantage Point Survey	vp5	2:00 starting at 10:55	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Came back to finish remaining hour of survey on the 18th of October.	CR
16/10/2023	Vantage Point Survey	vp3	3:00 starting at 14:04	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Men on-site with dogs from 15:45 pm to 16:26 pm.	CR
16/10/2023	Vantage Point Survey	vp3	2:00 starting at 17:35	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Came back to finish remaining hour of survey on the 20th of October.	CR
17/10/2023	Vantage Point Survey	vp6	3:00 starting at 13:08	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/10/2023	Vantage Point Survey	vp6	3:00 starting at 16:40	Visibility: poor; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		CR
18/10/2023	Vantage Point Survey	vp5	1:00 starting at 18:33	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
20/10/2023	Vantage Point Survey	vp3	1:00 starting at 11:51	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
20/10/2023	Vantage Point Survey	vp1	3:00 starting at 13:09	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
20/10/2023	Vantage Point Survey	vp1	3:00 starting at 16:40	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
10/11/2023	Vantage Point Survey	VP4	3:00 starting at 07:13	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2023	Vantage Point Survey	VP4	3:00 starting at 10:43	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
15/11/2023	Vantage Point Survey	VP5	3:00 starting at 07:35	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/11/2023	Vantage Point Survey	VP5	3:00 starting at 11:05	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/11/2023	Vantage Point Survey	VP2	3:00 starting at 07:38	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
16/11/2023	Vantage Point Survey	VP2	3:00 starting at 11:08	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		CR
24/11/2023	Vantage Point Survey	VP3	3:00 starting at 07:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/11/2023	Vantage Point Survey	VP3	3:00 starting at 11:10	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
29/11/2023	Vantage Point Survey	VP6	3:00 starting at 07:54	Visibility: limited; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: light; Snow: none		CR
29/11/2023	Vantage Point Survey	VP6	3:00 starting at 11:24	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/11/2023	Vantage Point Survey	VP1	3:00 starting at 07:56	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
30/11/2023	Vantage Point Survey	VP1	3:00 starting at 11:26	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
12/12/2023	Vantage Point Survey	VP6	3:00 starting at 10:47	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/12/2023	Vantage Point Survey	VP6	3:00 starting at 14:20	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
13/12/2023	Vantage Point Survey	VP3	3:00 starting at 10:46	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/12/2023	Vantage Point Survey	VP3	3:00 starting at 14:16	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
15/12/2023	Vantage Point Survey	VP5	3:00 starting at 10:50	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/12/2023	Vantage Point Survey	VP5	3:00 starting at 14:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
18/12/2023	Vantage Point Survey	VP4	3:00 starting at 10:53	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/12/2023	Vantage Point Survey	VP4	3:00 starting at 14:23	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 10:30	Visibility: moderate; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 11:30	Visibility: moderate; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 12:30	Visibility: poor; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JD
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 14:00	Visibility: poor; Wind speed and direction: strong breeze SE; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JD
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 15:00	Visibility: poor; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
20/12/2023	Vantage Point Survey	VP2	1:00 starting at 16:00	Visibility: poor; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 08:10	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 09:10	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 10:10	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 11:40	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 12:40	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
09/01/2024	Vantage Point Survey	VP1	1:00 starting at 13:40	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 08:05	Visibility: poor; Wind speed and direction: light air S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none	frozen ground, temperature was -2 at start of survey	JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 09:05	Visibility: poor; Wind speed and direction: light air S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 10:05	Visibility: poor; Wind speed and direction: light air S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 11:35	Visibility: poor; Wind speed and direction: light air S; Cloud cover and height: 33-66% <150m; Rain: none; Frost: heavy; Snow: none	fog rolling in after lunch break	JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 12:35	Visibility: limited; Wind speed and direction: light air S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	thick fog	JD
17/01/2024	Vantage Point Survey	VP2	1:00 starting at 13:35	Visibility: limited; Wind speed and direction: light air S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none		JD
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 08:10	Visibility: poor; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 09:10	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 10:10	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 11:40	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 12:40	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
24/01/2024	Vantage Point Survey	VP1	1:00 starting at 13:40	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 08:15	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 09:15	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 10:15	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 11:45	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 12:45	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JD
25/01/2024	Vantage Point Survey	VP3	1:00 starting at 13:45	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 08:05	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 09:05	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 10:05	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 11:35	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 12:35	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD
26/01/2024	Vantage Point Survey	VP4	1:00 starting at 13:35	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 08:15	Visibility: poor; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 09:15	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 10:15	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 11:45	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 12:45	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JD
29/01/2024	Vantage Point Survey	VP5	1:00 starting at 13:45	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 08:10	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 09:10	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 10:10	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: light; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 11:40	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: light; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 12:40	Visibility: moderate; Wind speed and direction: gentle breeze SE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: light; Snow: none		JD
30/01/2024	Vantage Point Survey	VP6	1:00 starting at 13:40	Visibility: moderate; Wind speed and direction: gentle breeze SE; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		JD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 12:00	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 13:00	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 14:00	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 15:30	Visibility: moderate; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 16:30	Visibility: moderate; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
07/02/2024	Vantage Point Survey	VP6	1:00 starting at 17:30	Visibility: poor; Wind speed and direction: light breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JD
08/02/2024	Vantage Point Survey	VP2	3:00 starting at 12:10	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/02/2024	Vantage Point Survey	VP2	3:00 starting at 15:40	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/02/2024	Vantage Point Survey	VP1	3:00 starting at 12:25	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/02/2024	Vantage Point Survey	VP1	3:00 starting at 15:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
21/02/2024	Vantage Point Survey	VP3	3:00 starting at 12:38	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
21/02/2024	Vantage Point Survey	VP3	3:00 starting at 16:08	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 11:30	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 12:30	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 13:30	Visibility: moderate; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 15:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 16:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JD
27/02/2024	Vantage Point Survey	VP5	1:00 starting at 17:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 11:35	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none	persistent drizzle with heavier showers	JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 12:35	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 13:35	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 15:05	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 16:05	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JD
28/02/2024	Vantage Point Survey	VP4	1:00 starting at 17:05	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		JD
08/03/2024	Vantage Point Survey	VP2	3:00 starting at 06:25	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
08/03/2024	Vantage Point Survey	VP2	3:00 starting at 09:55	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/03/2024	Vantage Point Survey	VP5	3:00 starting at 06:30	Visibility: moderate; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JD
15/03/2024	Vantage Point Survey	VP5	3:00 starting at 10:00	Visibility: moderate; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JD
21/03/2024	Vantage Point Survey	VP3	3:00 starting at 05:45	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/03/2024	Vantage Point Survey	VP3	3:00 starting at 09:15	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/03/2024	Vantage Point Survey	VP4	3:00 starting at 06:20	Visibility: poor; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JD
26/03/2024	Vantage Point Survey	VP4	3:00 starting at 09:50	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		JD
27/03/2024	Vantage Point Survey	VP1	3:00 starting at 05:35	Visibility: moderate; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
27/03/2024	Vantage Point Survey	VP1	3:00 starting at 09:05	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/03/2024	Vantage Point Survey	VP6	3:00 starting at 06:25	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JD
28/03/2024	Vantage Point Survey	VP6	3:00 starting at 09:55	Visibility: moderate; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JD
03/04/2024	Vantage Point Survey	VP1	3:00 starting at 14:43	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		NL
03/04/2024	Vantage Point Survey	VP1	3:00 starting at 18:13	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		NL
10/04/2024	Vantage Point Survey	VP3	3:00 starting at 15:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		CG
10/04/2024	Vantage Point Survey	VP3	3:00 starting at 18:30	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		CG
17/04/2024	Vantage Point Survey	VP4a	3:00 starting at 15:05	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		NL
17/04/2024	Vantage Point Survey	VP4a	3:00 starting at 18:35	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
18/04/2024	Vantage Point Survey	VP6	3:00 starting at 15:05	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
18/04/2024	Vantage Point Survey	VP6	3:00 starting at 18:35	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
25/04/2024	Vantage Point Survey	VP5	3:00 starting at 15:24	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: persistent; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/04/2024	Vantage Point Survey	VP5	3:00 starting at 18:54	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		NL
29/04/2024	Vantage Point Survey	VP2	3:00 starting at 14:35	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
29/04/2024	Vantage Point Survey	VP2	2:00 starting at 18:05	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
29/04/2024	Vantage Point Survey	VP2	1:00 starting at 20:05	Visibility: limited; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none	Torrential rain for last hour	PDC
02/05/2024	Vantage Point Survey	VP4a	3:00 starting at 05:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		NL
02/05/2024	Vantage Point Survey	VP4a	3:00 starting at 08:30	Visibility: poor; Wind speed and direction: gentle breeze WNW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	Fog covering most of viewshed from 8:30 to 10:00	NL
09/05/2024	Vantage Point Survey	VP5	3:00 starting at 04:43	Visibility: poor; Wind speed and direction: light air E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Fog over bog	NL
09/05/2024	Vantage Point Survey	VP5	3:00 starting at 08:13	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
20/05/2024	Vantage Point Survey	VP2	1:00 starting at 04:30	Visibility: poor; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Heavy ground mist	PDC
20/05/2024	Vantage Point Survey	VP2	1:00 starting at 05:30	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
20/05/2024	Vantage Point Survey	VP2	1:00 starting at 06:30	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
20/05/2024	Vantage Point Survey	VP2	3:00 starting at 08:00	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
21/05/2024	Vantage Point Survey	VP3	3:00 starting at 04:30	Visibility: moderate; Wind speed and direction: light air E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CG
21/05/2024	Vantage Point Survey	VP3	3:00 starting at 08:00	Visibility: moderate; Wind speed and direction: light air E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CG
22/05/2024	Vantage Point Survey	VP6	3:00 starting at 04:30	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		CG

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/05/2024	Vantage Point Survey	VP6	3:00 starting at 08:00	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		CG
24/05/2024	Vantage Point Survey	VP1	3:00 starting at 04:20			CG
24/05/2024	Vantage Point Survey	VP1	3:00 starting at 07:50			CG
05/06/2024	Vantage Point Survey	VP3	3:00 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none	Light scattered showers, each less than 10 minutes	CG
05/06/2024	Vantage Point Survey	VP3	3:00 starting at 12:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: drizzle; Frost: none; Snow: none	Light scattered showers, each less than 10 minutes	CG
06/06/2024	Vantage Point Survey	VP6	3:00 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CG
06/06/2024	Vantage Point Survey	VP6	3:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CG
12/06/2024	Vantage Point Survey	VP4a	3:00 starting at 08:25	Visibility: good; Wind speed and direction: calm SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
12/06/2024	Vantage Point Survey	VP4a	3:00 starting at 11:55	Visibility: good; Wind speed and direction: calm SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
18/06/2024	Vantage Point Survey	VP1	1:00 starting at 05:50	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
18/06/2024	Vantage Point Survey	VP1	1:00 starting at 06:50	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
18/06/2024	Vantage Point Survey	VP1	1:00 starting at 07:50	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
18/06/2024	Vantage Point Survey	VP5	3:00 starting at 08:20	Visibility: good; Wind speed and direction: moderate breeze NNW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
18/06/2024	Vantage Point Survey	VP1	3:00 starting at 09:20	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
18/06/2024	Vantage Point Survey	VP5	3:00 starting at 11:50	Visibility: good; Wind speed and direction: moderate breeze NNW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
19/06/2024	Vantage Point Survey	VP2	1:00 starting at 06:00	Visibility: moderate; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Low sun to the east of the VP meant visibility wasn't as good to the east.	PDC
19/06/2024	Vantage Point Survey	VP2	1:00 starting at 07:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
19/06/2024	Vantage Point Survey	VP2	1:00 starting at 08:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		PDC
19/06/2024	Vantage Point Survey	VP2	2:00 starting at 09:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
19/06/2024	Vantage Point Survey	VP2	1:00 starting at 11:30	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
10/07/2024	Vantage Point Survey	VP1	2:00 starting at 06:00	Visibility: moderate; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
10/07/2024	Vantage Point Survey	VP1	1:00 starting at 08:00	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
10/07/2024	Vantage Point Survey	VP1	2:00 starting at 09:30	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
10/07/2024	Vantage Point Survey	VP1	1:00 starting at 11:30	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
11/07/2024	Vantage Point Survey	VP2	1:00 starting at 06:05	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
11/07/2024	Vantage Point Survey	VP2	2:00 starting at 07:05	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
11/07/2024	Vantage Point Survey	VP4a	3:00 starting at 08:00	Visibility: good; Wind speed and direction: moderate breeze NNW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none	Very grey	NL
11/07/2024	Vantage Point Survey	VP2	3:00 starting at 09:35	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
11/07/2024	Vantage Point Survey	VP4a	3:00 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze NNW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Bright and sunny	NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
15/07/2024	Vantage Point Survey	VP3	1:00 starting at 06:05	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Low sun and ground mist	PDC
15/07/2024	Vantage Point Survey	VP3	2:00 starting at 07:05	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		PDC
15/07/2024	Vantage Point Survey	VP3	1:00 starting at 09:35	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
15/07/2024	Vantage Point Survey	VP3	2:00 starting at 10:35	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
16/07/2024	Vantage Point Survey	VP6	1:00 starting at 06:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Very murky	PDC
16/07/2024	Vantage Point Survey	VP6	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		PDC
16/07/2024	Vantage Point Survey	VP6	1:00 starting at 08:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
16/07/2024	Vantage Point Survey	VP6	3:00 starting at 09:30	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none	Heavy drizzle and mist	PDC
19/07/2024	Vantage Point Survey	VP5	3:00 starting at 08:00	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		KS
19/07/2024	Vantage Point Survey	VP5	3:00 starting at 11:30	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		KS
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 06:30	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Looking into low sun	PDC
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 07:30	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 08:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 0-33% >500m; Rain: light showers; Frost: none; Snow: none		PDC
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 10:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 11:00	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		PDC
06/08/2024	Vantage Point Survey	VP1	1:00 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
08/08/2024	Vantage Point Survey	VP2	2:00 starting at 06:30	Visibility: poor; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none	Persistent, heavy drizzle and very misty over bog	PDC
08/08/2024	Vantage Point Survey	VP2	1:00 starting at 08:30	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
08/08/2024	Vantage Point Survey	VP2	3:00 starting at 10:00	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
12/08/2024	Vantage Point Survey	VP3	1:00 starting at 06:20	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
12/08/2024	Vantage Point Survey	VP3	1:00 starting at 07:20	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		PDC
12/08/2024	Vantage Point Survey	VP3	1:00 starting at 08:20	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
12/08/2024	Vantage Point Survey	VP3	1:00 starting at 09:50	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
12/08/2024	Vantage Point Survey	VP3	2:00 starting at 10:50	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
13/08/2024	Vantage Point Survey	VP4a	2:00 starting at 06:30	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
13/08/2024	Vantage Point Survey	VP4a	1:00 starting at 08:30	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
13/08/2024	Vantage Point Survey	VP4a	1:00 starting at 10:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
13/08/2024	Vantage Point Survey	VP4a	2:00 starting at 11:00	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
14/08/2024	Vantage Point Survey	VP5	3:00 starting at 06:30	Visibility: good; Wind speed and direction: light air SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
14/08/2024	Vantage Point Survey	VP5	1:00 starting at 10:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
14/08/2024	Vantage Point Survey	VP5	1:00 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
14/08/2024	Vantage Point Survey	VP5	1:00 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
15/08/2024	Vantage Point Survey	VP6	3:00 starting at 06:20	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none	Wind speed mast not visible for most of survey	PDC
15/08/2024	Vantage Point Survey	VP6	3:00 starting at 09:50	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 05:45	Visibility: poor; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Ground mist over bog	PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 06:45	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 07:45	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 09:15	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 10:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
05/09/2024	Vantage Point Survey	VP1	1:00 starting at 11:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
11/09/2024	Vantage Point Survey	VP2	1:00 starting at 06:00	Visibility: poor; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		PDC
11/09/2024	Vantage Point Survey	VP2	2:00 starting at 07:00	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	Low sun to east of viewshed.	PDC
11/09/2024	Vantage Point Survey	VP2	1:00 starting at 09:30	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
11/09/2024	Vantage Point Survey	VP2	1:00 starting at 10:30	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
11/09/2024	Vantage Point Survey	VP2	1:00 starting at 11:30	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		PDC
12/09/2024	Vantage Point Survey	VP3	1:00 starting at 06:00	Visibility: limited; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
12/09/2024	Vantage Point Survey	VP3	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
12/09/2024	Vantage Point Survey	VP3	1:00 starting at 08:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
12/09/2024	Vantage Point Survey	VP3	1:00 starting at 09:30	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none	Very murky in the distance due to the showers	PDC
12/09/2024	Vantage Point Survey	VP3	2:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
17/09/2024	Vantage Point Survey	VP6	1:00 starting at 06:00	Visibility: poor; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		PDC
17/09/2024	Vantage Point Survey	VP6	2:00 starting at 07:00	Visibility: limited; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Fog rolling in across the bog from the east. Visibility down to less than 500m.	PDC
17/09/2024	Vantage Point Survey	VP6	3:00 starting at 09:30	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Fog cleared at last.	PDC
18/09/2024	Vantage Point Survey	VP4a	1:00 starting at 06:00	Visibility: limited; Wind speed and direction: gentle breeze E; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none	Heavy ground mist over the bog	PDC
18/09/2024	Vantage Point Survey	VP4a	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Still misty over the bog, but clear skies above the mist.	PDC
18/09/2024	Vantage Point Survey	VP4a	1:00 starting at 08:00	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		PDC
18/09/2024	Vantage Point Survey	VP4a	3:00 starting at 09:30	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Mist cleared around 9:30	PDC
19/09/2024	Vantage Point Survey	VP5	1:00 starting at 06:00	Visibility: none; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Thick fog over bog for the first three hours.	PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
19/09/2024	Vantage Point Survey	VP5	1:00 starting at 07:00	Visibility: limited; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		PDC
19/09/2024	Vantage Point Survey	VP5	1:00 starting at 08:00	Visibility: limited; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		PDC
19/09/2024	Vantage Point Survey	VP5	1:00 starting at 09:30	Visibility: poor; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Still very misty in the distance	PDC
19/09/2024	Vantage Point Survey	VP5	2:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		PDC
15/10/2024	Vantage Point Survey	VP5	1:00 starting at 13:02	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		CC
15/10/2024	Vantage Point Survey	VP5	2:00 starting at 14:02	Visibility: poor; Wind speed and direction: fresh breeze SE; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		CC
15/10/2024	Vantage Point Survey	VP5	1:08 starting at 16:32	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		CC
15/10/2024	Vantage Point Survey	VP5	1:52 starting at 17:40	Visibility: poor; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		CC
16/10/2024	Vantage Point Survey	VP4a	3:00 starting at 13:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CC
16/10/2024	Vantage Point Survey	VP4a	3:00 starting at 16:30	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CC
24/10/2024	Vantage Point Survey	VP3	3:00 starting at 12:44	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
24/10/2024	Vantage Point Survey	VP3	3:00 starting at 16:14	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		CC
31/10/2024	Vantage Point Survey	VP6	3:00 starting at 11:28	Visibility: moderate; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
31/10/2024	Vantage Point Survey	VP6	3:00 starting at 14:58	Visibility: moderate; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
23/10/2024	Vantage Point Survey	VP2	3:00 starting at 12:50	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
23/10/2024	Vantage Point Survey	VP2	3:00 starting at 16:20	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD
30/10/2024	Vantage Point Survey	VP1	3:00 starting at 12:50	Visibility: good; Wind speed and direction: light breeze WSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no target observation	FOD
30/10/2024	Vantage Point Survey	VP1	3:00 starting at 16:20	Visibility: good; Wind speed and direction: light breeze WSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no target observation	FOD
08/11/2024	Vantage Point Survey	VP4a	3:00 starting at 06:50	Visibility: moderate; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		CC
08/11/2024	Vantage Point Survey	VP4a	3:00 starting at 10:20	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
20/11/2024	Vantage Point Survey	VP5	3:00 starting at 07:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: light; Snow: none		CC
20/11/2024	Vantage Point Survey	VP5	3:00 starting at 10:40	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: light; Snow: none		CC
21/11/2024	Vantage Point Survey	VP6	3:00 starting at 07:05	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: on ground		CC
21/11/2024	Vantage Point Survey	VP6	3:00 starting at 10:35	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: on ground		CC
26/11/2024	Vantage Point Survey	VP4a	3:00 starting at 10:50	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: light; Snow: none		CC
26/11/2024	Vantage Point Survey	VP4a	3:00 starting at 14:20	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CC
11/11/2024	Vantage Point Survey	VP2	3:00 starting at 06:50	Visibility: poor; Wind speed and direction: light air SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		FOD
11/11/2024	Vantage Point Survey	VP2	3:00 starting at 10:20	Visibility: limited; Wind speed and direction: light air SE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		FOD
12/11/2024	Vantage Point Survey	VP1	3:00 starting at 06:50	Visibility: limited; Wind speed and direction: calm W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No target Obs	FOD
12/11/2024	Vantage Point Survey	VP1	3:00 starting at 10:20	Visibility: limited; Wind speed and direction: calm W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No target Obs	FOD

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
13/11/2024	Vantage Point Survey	VP3	3:00 starting at 06:50	Visibility: limited; Wind speed and direction: calm W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		FOD
13/11/2024	Vantage Point Survey	VP3	3:00 starting at 10:20	Visibility: moderate; Wind speed and direction: calm W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD
27/11/2024	Vantage Point Survey	VP1	3:00 starting at 10:45	Visibility: limited; Wind speed and direction: calm N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	No target Obs	FOD
27/11/2024	Vantage Point Survey	VP1	3:00 starting at 14:15	Visibility: limited; Wind speed and direction: calm N; Cloud cover and height: 66-100% <150m; Rain: none; Frost: heavy; Snow: none	No target Obs	FOD
28/11/2024	Vantage Point Survey	VP2	3:00 starting at 10:45	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD
28/11/2024	Vantage Point Survey	VP2	3:00 starting at 14:15	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD
29/11/2024	Vantage Point Survey	VP3	3:00 starting at 10:45	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No target Obs	FOD
29/11/2024	Vantage Point Survey	VP3	3:00 starting at 14:15	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No target Obs	FOD
04/12/2024	Vantage Point Survey	VP5	3:00 starting at 10:40	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		KS
04/12/2024	Vantage Point Survey	VP5	3:00 starting at 14:10	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		KS
07/01/2025	Vantage Point Survey	VP6	3:00 starting at 11:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: light; Snow: none		CC
07/01/2025	Vantage Point Survey	VP6	3:00 starting at 14:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: light; Snow: none		CC
22/01/2025	Vantage Point Survey	VP6	3:00 starting at 07:30	Visibility: limited; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Thick fog	CC
22/01/2025	Vantage Point Survey	VP6	1:00 starting at 11:00	Visibility: poor; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Thick fog	CC
22/01/2025	Vantage Point Survey	VP6	2:00 starting at 12:00	Visibility: moderate; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Fog lifted	CC
23/01/2025	Vantage Point Survey	VP4a	3:00 starting at 07:30	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		CC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
23/01/2025	Vantage Point Survey	VP4a	3:00 starting at 11:00	Visibility: moderate; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
29/01/2025	Vantage Point Survey	VP5	3:00 starting at 07:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: light; Snow: none		CC
29/01/2025	Vantage Point Survey	VP5	3:00 starting at 10:55	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		CC
14/01/2025	Vantage Point Survey	VP1	3:00 starting at 07:40	Visibility: good; Wind speed and direction: light breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		ZE
14/01/2025	Vantage Point Survey	VP1	3:00 starting at 11:10	Visibility: good; Wind speed and direction: light breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
15/01/2025	Vantage Point Survey	VP2	3:00 starting at 07:40	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		ZE
15/01/2025	Vantage Point Survey	VP2	3:00 starting at 11:10	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		ZE
16/01/2025	Vantage Point Survey	VP3	3:00 starting at 07:40	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		ZE
16/01/2025	Vantage Point Survey	VP3	3:00 starting at 11:10	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		ZE
19/02/2025	Vantage Point Survey	VP4a	3:00 starting at 12:15	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
19/02/2025	Vantage Point Survey	VP4a	3:00 starting at 15:45	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		CC
21/02/2025	Vantage Point Survey	VP5	3:00 starting at 12:20	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
21/02/2025	Vantage Point Survey	VP5	3:00 starting at 15:50	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
25/02/2025	Vantage Point Survey	VP6	3:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CC
25/02/2025	Vantage Point Survey	VP6	3:00 starting at 16:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		CC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
11/02/2025	Vantage Point Survey	VP1	3:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
11/02/2025	Vantage Point Survey	VP1	3:00 starting at 15:30	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
12/02/2025	Vantage Point Survey	VP2	3:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
12/02/2025	Vantage Point Survey	VP2	3:00 starting at 15:30	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
13/02/2025	Vantage Point Survey	VP3	3:00 starting at 12:10	Visibility: good; Wind speed and direction: moderate breeze ESE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
13/02/2025	Vantage Point Survey	VP3	3:00 starting at 15:40	Visibility: good; Wind speed and direction: moderate breeze ESE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
11/03/2025	Vantage Point Survey	VP1	3:00 starting at 06:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		ZE
11/03/2025	Vantage Point Survey	VP1	3:00 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		ZE
12/03/2025	Vantage Point Survey	VP2	3:00 starting at 05:55	Visibility: good; Wind speed and direction: gentle breeze NNE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
12/03/2025	Vantage Point Survey	VP2	3:00 starting at 09:25	Visibility: good; Wind speed and direction: gentle breeze NNE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
13/03/2025	Vantage Point Survey	VP3	2:00 starting at 05:55	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: light; Snow: none		ZE
13/03/2025	Vantage Point Survey	VP3	1:00 starting at 07:55	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		ZE
13/03/2025	Vantage Point Survey	VP3	3:00 starting at 09:25	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		ZE
05/03/2025	Vantage Point Survey	VP4a	3:00 starting at 06:10	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		CC
05/03/2025	Vantage Point Survey	VP4a	3:00 starting at 09:40	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
06/03/2025	Vantage Point Survey	VP5	3:00 starting at 06:10	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CC
06/03/2025	Vantage Point Survey	VP5	3:00 starting at 09:40	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CC
20/03/2025	Vantage Point Survey	VP6	3:00 starting at 05:35	Visibility: poor; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	misty morning	CC
20/03/2025	Vantage Point Survey	VP6	1:00 starting at 09:05	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	mist starting to lift	CC
20/03/2025	Vantage Point Survey	VP6	2:00 starting at 10:05	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	mist lifted	CC

Table 2 Breeding walkover survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
21/04/2021	Breeding Walkover Survey	T1	6:15 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		TR
22/04/2021	Breeding Walkover Survey	T2	6:15 starting at 10:00	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		TR
23/04/2021	Breeding Walkover Survey	T3	6:00 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	1pair ringed plover probably breeding	TR
14/05/2021	Breeding Walkover Survey	T1	6:15 starting at 10:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		TR
17/05/2021	Breeding Walkover Survey	T2	6:15 starting at 10:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: heavy showers; Frost: none; Snow: none		TR
18/05/2021	Breeding Walkover Survey	T3	6:15 starting at 10:30	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: heavy showers; Frost: none; Snow: none		TR
16/06/2021	Breeding Walkover Survey	T1	5:30 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: light showers; Frost: none; Snow: none		TR
18/06/2021	Breeding Walkover Survey	T2	5:30 starting at 13:00	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		TR
30/06/2021	Breeding Walkover Survey	T2&3, priority areas	6:30 starting at 11:00	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Fledged kestrel chicks within 500m, L pair on site, fledged ringed plover on site.	TR
21/07/2021	Breeding Walkover Survey	T2	6:00 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none		TR
23/07/2021	Breeding Walkover Survey	T3	5:00 starting at 10:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		TR
29/07/2021	Breeding Walkover Survey	T1	1:40 starting at 09:50	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	cloudy day lost of cumulus clouds	SOB
29/07/2021	Breeding Walkover Survey	T2	1:22 starting at 11:43	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Breeding Walkover Survey	T3	0:53 starting at 13:38	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
29/07/2021	Breeding Walkover Survey	T4	1:05 starting at 14:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
29/07/2021	Breeding Walkover Survey	T5	0:47 starting at 15:50	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
14/04/2022	Breeding Walkover Survey	T1	3:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/04/2022	Breeding Walkover Survey	T1	3:00 starting at 15:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/04/2022	Breeding Walkover Survey	T2	3:00 starting at 12:12	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
27/04/2022	Breeding Walkover Survey	T2	3:00 starting at 15:40	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/04/2022	Breeding Walkover Survey	T3	3:00 starting at 08:40	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/04/2022	Breeding Walkover Survey	T3	3:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
09/05/2022	Breeding Walkover Survey	T1	3:00 starting at 12:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/05/2022	Breeding Walkover Survey	T2	3:00 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/05/2022	Breeding Walkover Survey	T3	3:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/05/2022	Breeding Walkover Survey	T4	3:00 starting at 16:20	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/05/2022	Breeding Walkover Survey	T5	3:00 starting at 12:58	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/05/2022	Breeding Walkover Survey	T6	3:00 starting at 16:22	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
01/06/2022	Breeding Walkover Survey	T1	3:00 starting at 06:10	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
02/06/2022	Breeding Walkover Survey	T2	3:00 starting at 16:30	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
02/06/2022	Breeding Walkover Survey	T3	3:00 starting at 20:05	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
17/06/2022	Breeding Walkover Survey	T4	3:00 starting at 13:40	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/06/2022	Breeding Walkover Survey	T5	3:00 starting at 11:54	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
28/06/2022	Breeding Walkover Survey	T6	3:00 starting at 15:28	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/07/2022	Breeding Walkover Survey	T1	3:00 starting at 14:25	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/07/2022	Breeding Walkover Survey	T2	3:00 starting at 18:00	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
15/07/2022	Breeding Walkover Survey	T3	3:00 starting at 06:45	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
18/07/2022	Breeding Walkover Survey	T4	3:00 starting at 19:54	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/07/2022	Breeding Walkover Survey	T5	3:00 starting at 10:24	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/07/2022	Breeding Walkover Survey	T6	3:00 starting at 13:15	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
04/04/2023	Breeding Walkover Survey	T1	3:00 starting at 12:48	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/04/2023	Breeding Walkover Survey	T1	3:00 starting at 16:19	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/04/2023	Breeding Walkover Survey	T2	3:00 starting at 12:33	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
06/04/2023	Breeding Walkover Survey	T2	3:00 starting at 16:03	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
27/04/2023	Breeding Walkover Survey	T3	3:00 starting at 12:33	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/04/2023	Breeding Walkover Survey	T3	3:00 starting at 16:03	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/05/2023	Breeding Walkover Survey	T1	3:00 starting at 16:09	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/05/2023	Breeding Walkover Survey	T2	3:00 starting at 16:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
18/05/2023	Breeding Walkover Survey	T3	3:00 starting at 16:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
26/05/2023	Breeding Walkover Survey	T4	3:00 starting at 13:45	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
29/05/2023	Breeding Walkover Survey	T5	3:00 starting at 16:35	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/05/2023	Breeding Walkover Survey	T6	3:00 starting at 16:34	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/06/2023	Breeding Walkover Survey	T1	3:00 starting at 11:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
21/06/2023	Breeding Walkover Survey	T2	3:00 starting at 16:34	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
27/06/2023	Breeding Walkover Survey	T3	3:00 starting at 16:37	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
28/06/2023	Breeding Walkover Survey	T4	3:00 starting at 13:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/06/2023	Breeding Walkover Survey	T5	3:00 starting at 17:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
29/06/2023	Breeding Walkover Survey	T6	3:00 starting at 16:48	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/07/2023	Breeding Walkover Survey	T1	3:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/07/2023	Breeding Walkover Survey	T2	3:00 starting at 17:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/07/2023	Breeding Walkover Survey	T3	3:00 starting at 17:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/07/2023	Breeding Walkover Survey	T4	3:00 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/07/2023	Breeding Walkover Survey	T5	3:00 starting at 14:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/07/2023	Breeding Walkover Survey	T6	3:00 starting at 17:20	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/04/2024	Breeding Walkover Survey	T1	1:00 starting at 07:15	Visibility: good; Wind speed and direction: calm NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
22/04/2024	Breeding Walkover Survey	T1	3:00 starting at 08:15	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
22/04/2024	Breeding Walkover Survey	T1	1:35 starting at 11:15	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
23/04/2024	Breeding Walkover Survey	T2	2:00 starting at 07:15	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
23/04/2024	Breeding Walkover Survey	T2	1:00 starting at 09:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
23/04/2024	Breeding Walkover Survey	T2	2:20 starting at 10:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		PDC
24/04/2024	Breeding Walkover Survey	T3	2:00 starting at 07:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		PDC
24/04/2024	Breeding Walkover Survey	T3	3:30 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		PDC
29/05/2024	Breeding Walkover Survey	T3	1:00 starting at 07:10	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
27/05/2024	Breeding Walkover Survey	T1	1:00 starting at 05:00	Visibility: moderate; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
27/05/2024	Breeding Walkover Survey	T1	2:00 starting at 06:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
27/05/2024	Breeding Walkover Survey	T1	1:00 starting at 08:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
27/05/2024	Breeding Walkover Survey	T1	1:30 starting at 09:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		PDC
28/05/2024	Breeding Walkover Survey	T2	1:00 starting at 05:05	Visibility: poor; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
28/05/2024	Breeding Walkover Survey	T2	1:00 starting at 06:05	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		PDC
28/05/2024	Breeding Walkover Survey	T2	2:00 starting at 07:05	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		PDC
28/05/2024	Breeding Walkover Survey	T2	1:25 starting at 09:05	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		PDC
29/05/2024	Breeding Walkover Survey	T3	1:00 starting at 05:10	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
29/05/2024	Breeding Walkover Survey	T3	1:00 starting at 06:10	Visibility: moderate; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		PDC
29/05/2024	Breeding Walkover Survey	T3	1:00 starting at 08:10	Visibility: moderate; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none	Weather closed in from the west, with persistent drizzle and ground mist	PDC
29/05/2024	Breeding Walkover Survey	T3	1:30 starting at 09:10	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
24/06/2024	Breeding Walkover Survey	T1	2:00 starting at 06:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
24/06/2024	Breeding Walkover Survey	T1	1:00 starting at 08:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		PDC
24/06/2024	Breeding Walkover Survey	T1	2:00 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
25/06/2024	Breeding Walkover Survey	T2	1:00 starting at 06:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		PDC
25/06/2024	Breeding Walkover Survey	T2	1:00 starting at 07:00	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		PDC
25/06/2024	Breeding Walkover Survey	T2	1:00 starting at 08:00	Visibility: poor; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none	Weather closed in over the bog. Very heavy, persistent drizzle and very misty.	PDC
25/06/2024	Breeding Walkover Survey	T2	2:35 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		PDC
26/06/2024	Breeding Walkover Survey	T3	2:00 starting at 06:05	Visibility: good; Wind speed and direction: calm NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Ground mist over bog on arrival, but lifted quickly.	PDC
26/06/2024	Breeding Walkover Survey	T3	2:00 starting at 08:05	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		PDC
26/06/2024	Breeding Walkover Survey	T3	1:15 starting at 10:05	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
22/07/2024	Breeding Walkover Survey	T1	1:00 starting at 06:30	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		PDC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/07/2024	Breeding Walkover Survey	T1	1:00 starting at 07:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		PDC
22/07/2024	Breeding Walkover Survey	T1	3:15 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
23/07/2024	Breeding Walkover Survey	T2	1:00 starting at 06:00	Visibility: moderate; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
23/07/2024	Breeding Walkover Survey	T2	3:00 starting at 07:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
23/07/2024	Breeding Walkover Survey	T2	2:05 starting at 10:00	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		PDC
24/07/2024	Breeding Walkover Survey	T3	2:00 starting at 06:05	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		PDC
24/07/2024	Breeding Walkover Survey	T3	1:00 starting at 08:05	Visibility: poor; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		PDC
24/07/2024	Breeding Walkover Survey	T3	1:00 starting at 09:05	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		PDC
24/07/2024	Breeding Walkover Survey	T3	1:00 starting at 10:05	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		PDC
24/07/2024	Breeding Walkover Survey	T3	0:55 starting at 11:05	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		PDC

Table 3 Breeding raptor survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/04/2021	Breeding Raptor Survey	BR1	3:00 starting at 06:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% 150-500m; Rain: drizzle; Frost: none; Snow: none		SA
09/04/2021	Breeding Raptor Survey	BR4	3:05 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: drizzle; Frost: none; Snow: none		SA
10/04/2021	Breeding Raptor Survey	BR3	3:00 starting at 05:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
10/04/2021	Breeding Raptor Survey	BR2	3:05 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% 150-500m; Rain: drizzle; Frost: none; Snow: none		SA
22/04/2021	Breeding Raptor Survey	BR5	3:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
22/04/2021	Breeding Raptor Survey	BR5	3:00 starting at 14:00	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
23/04/2021	Breeding Raptor Survey	BR8	3:00 starting at 07:00	Visibility: good; Wind speed and direction: fresh breeze SE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		SA
23/04/2021	Breeding Raptor Survey	BR7	3:00 starting at 10:40	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
09/05/2021	Breeding Raptor Survey	BR1	3:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SA
09/05/2021	Breeding Raptor Survey	BR9	3:00 starting at 12:35	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SA
22/05/2021	Breeding Raptor Survey	BR6	3:00 starting at 06:00	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SA
22/05/2021	Breeding Raptor Survey	BR5	3:00 starting at 09:45	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SA
23/05/2021	Breeding Raptor Survey	BR4	3:00 starting at 04:35	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		SA
29/05/2021	Breeding Raptor Survey	BR2	3:00 starting at 14:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		SA
30/05/2021	Breeding Raptor Survey	BR7	3:00 starting at 04:45	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		SA

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/05/2021	Breeding Raptor Survey	BR8	3:00 starting at 08:10	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
19/06/2021	Breeding Raptor Survey	BR4	3:00 starting at 06:00	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
19/06/2021	Breeding Raptor Survey	BR2	3:00 starting at 09:25	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
19/06/2021	Breeding Raptor Survey	BR6	3:00 starting at 13:05	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SA
20/06/2021	Breeding Raptor Survey	BR5	3:00 starting at 06:00	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
20/06/2021	Breeding Raptor Survey	BR8	3:00 starting at 09:20	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SA
20/06/2021	Breeding Raptor Survey	BR7	3:00 starting at 13:00	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
28/06/2021	Breeding Raptor Survey	BR1	3:00 starting at 14:40	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
28/06/2021	Breeding Raptor Survey	BR9	3:00 starting at 17:45	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		SA
05/07/2021	Breeding Raptor Survey	BR1	3:00 starting at 16:40	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
06/07/2021	Breeding Raptor Survey	BR2	3:00 starting at 16:40	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
07/07/2021	Breeding Raptor Survey	BR3	3:00 starting at 16:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JG
09/07/2021	Breeding Raptor Survey	BR7	3:00 starting at 16:30	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No Target Species Observed	JG
12/07/2021	Breeding Raptor Survey	BR5	3:00 starting at 16:00	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
26/07/2021	Breeding Raptor Survey	BR4	3:00 starting at 14:20	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JG
27/07/2021	Breeding Raptor Survey	BR6	3:00 starting at 11:20	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
27/07/2021	Breeding Raptor Survey	BR8	3:00 starting at 14:30	Visibility: moderate; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none	No Target Species Observed	JG

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
05/04/2022	Breeding Raptor Survey	BR1	3:00 starting at 10:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/04/2022	Breeding Raptor Survey	BR4	3:00 starting at 14:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/04/2022	Breeding Raptor Survey	BR8	3:00 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
08/04/2022	Breeding Raptor Survey	BR7	3:00 starting at 14:50	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
11/04/2022	Breeding Raptor Survey	BR3	3:00 starting at 12:32	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/04/2022	Breeding Raptor Survey	BR2	3:00 starting at 15:56	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/04/2022	Breeding Raptor Survey	BR5	3:00 starting at 10:50	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/04/2022	Breeding Raptor Survey	BR6	3:00 starting at 14:31	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
16/05/2022	Breeding Raptor Survey	BR4	3:00 starting at 15:14	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/05/2022	Breeding Raptor Survey	BR2	3:00 starting at 12:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
17/05/2022	Breeding Raptor Survey	BR3	3:00 starting at 15:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/05/2022	Breeding Raptor Survey	BR1	3:00 starting at 12:27	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/05/2022	Breeding Raptor Survey	BR8	3:00 starting at 16:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
25/05/2022	Breeding Raptor Survey	BR6	3:00 starting at 16:00	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
26/05/2022	Breeding Raptor Survey	BR7	3:00 starting at 16:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
01/06/2022	Breeding Raptor Survey	BR3	3:00 starting at 20:07	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Barn owl survey (no sightings).	CR
07/06/2022	Breeding Raptor Survey	BR1	3:00 starting at 17:00	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/06/2022	Breeding Raptor Survey	BR2	3:00 starting at 16:41	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/06/2022	Breeding Raptor Survey	BR4	3:00 starting at 14:25	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/06/2022	Breeding Raptor Survey	BR8	3:00 starting at 10:48	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/06/2022	Breeding Raptor Survey	BR6	3:00 starting at 14:24	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
15/06/2022	Breeding Raptor Survey	BR7	3:00 starting at 14:06	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/07/2022	Breeding Raptor Survey	BR7	3:00 starting at 10:36	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2022	Breeding Raptor Survey	BR1	3:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2022	Breeding Raptor Survey	BR3	1:30 starting at 16:01	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2022	Breeding Raptor Survey	BR3	1:30 starting at 18:02	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
14/07/2022	Breeding Raptor Survey	BR8	3:00 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
19/07/2022	Breeding Raptor Survey	BR4	2:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/07/2022	Breeding Raptor Survey	BR2	3:00 starting at 14:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/07/2022	Breeding Raptor Survey	BR6	3:00 starting at 10:30	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/07/2022	Breeding Raptor Survey	BR4	1:00 starting at 14:05	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/04/2023	Breeding Raptor Survey	BR4	3:00 starting at 15:20	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/04/2023	Breeding Raptor Survey	BR7	3:00 starting at 09:32	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
14/04/2023	Breeding Raptor Survey	BR8	3:00 starting at 09:40	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/04/2023	Breeding Raptor Survey	BR1	3:00 starting at 13:00	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
17/04/2023	Breeding Raptor Survey	BR3	1:15 starting at 10:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/04/2023	Breeding Raptor Survey	BR3	1:45 starting at 13:10	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/04/2023	Breeding Raptor Survey	BR6	3:00 starting at 09:05	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/05/2023	Breeding Raptor Survey	BR2	3:00 starting at 10:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/05/2023	Breeding Raptor Survey	BR4	3:00 starting at 16:33	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No raptors observed.	CR
05/05/2023	Breeding Raptor Survey	BR1	3:00 starting at 16:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No raptors observed.	CR
09/05/2023	Breeding Raptor Survey	BR3	3:00 starting at 16:03	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No raptors observed.	CR
11/05/2023	Breeding Raptor Survey	BR8	3:00 starting at 16:23	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/05/2023	Breeding Raptor Survey	BR7	3:00 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
18/05/2023	Breeding Raptor Survey	BR6	3:00 starting at 12:55	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/05/2023	Breeding Raptor Survey	BR2	1:00 starting at 14:00	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/05/2023	Breeding Raptor Survey	BR2	2:00 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/06/2023	Breeding Raptor Survey	BR3	3:00 starting at 16:37	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
15/06/2023	Breeding Raptor Survey	BR8	3:00 starting at 15:50	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
19/06/2023	Breeding Raptor Survey	BR4	3:00 starting at 16:40	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
22/06/2023	Breeding Raptor Survey	BR2	3:00 starting at 11:19	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
22/06/2023	Breeding Raptor Survey	BR7	3:00 starting at 15:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
23/06/2023	Breeding Raptor Survey	BR1	3:00 starting at 13:25	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
29/06/2023	Breeding Raptor Survey	BR6	3:00 starting at 13:30	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
05/07/2023	Breeding Raptor Survey	BR3	3:00 starting at 12:45	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
05/07/2023	Breeding Raptor Survey	BR4	3:00 starting at 16:25	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/07/2023	Breeding Raptor Survey	BR1	3:00 starting at 09:27	Visibility: moderate; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
14/07/2023	Breeding Raptor Survey	BR8	2:00 starting at 12:38	Visibility: moderate; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: persistent; Frost: none; Snow: none	Persistent rain from 13:45 pm. Came back to finish remaining hour of survey on the 26th of July.	CR
20/07/2023	Breeding Raptor Survey	BR2	3:00 starting at 11:13	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
20/07/2023	Breeding Raptor Survey	BR7	3:00 starting at 14:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/07/2023	Breeding Raptor Survey	BR8	1:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
26/07/2023	Breeding Raptor Survey	BR6	3:00 starting at 13:53	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/04/2024	Breeding Raptor Survey	BR4	3:00 starting at 07:00	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD
04/04/2024	Breeding Raptor Survey	BR12	3:00 starting at 10:30	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD
09/04/2024	Breeding Raptor Survey	BR3	3:00 starting at 09:45	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none		CG
09/04/2024	Breeding Raptor Survey	BR2	1:30 starting at 13:20	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none		CG
09/04/2024	Breeding Raptor Survey	BR2	1:30 starting at 15:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CG
16/04/2024	Breeding Raptor Survey	BR4	3:00 starting at 08:30	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Looking into sun.	NL
16/04/2024	Breeding Raptor Survey	BR11	3:00 starting at 11:50	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/04/2024	Breeding Raptor Survey	BR8	3:00 starting at 07:45	Visibility: good; Wind speed and direction: light air SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
30/04/2024	Breeding Raptor Survey	BR9	3:00 starting at 10:52	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: persistent; Frost: none; Snow: none		NL
15/05/2024	Breeding Raptor Survey	BR4	3:00 starting at 08:00	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
15/05/2024	Breeding Raptor Survey	BR11	3:00 starting at 11:00	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
21/05/2024	Breeding Raptor Survey	BR12	3:00 starting at 08:30	Visibility: poor; Wind speed and direction: light air NW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none	Foggy	NL
21/05/2024	Breeding Raptor Survey	BR5	3:00 starting at 11:45	Visibility: poor; Wind speed and direction: light air NW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		NL
23/05/2024	Breeding Raptor Survey	BR8	3:00 starting at 08:25	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
23/05/2024	Breeding Raptor Survey	BR9	3:00 starting at 11:45	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
28/05/2024	Breeding Raptor Survey	BR2	3:00 starting at 08:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		NL
28/05/2024	Breeding Raptor Survey	BR3	0:20 starting at 11:40	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		NL
28/05/2024	Breeding Raptor Survey	BR3	2:40 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
11/06/2024	Breeding Raptor Survey	BR5	3:00 starting at 08:15	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
11/06/2024	Breeding Raptor Survey	BR12	3:00 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
20/06/2024	Breeding Raptor Survey	BR9	3:00 starting at 08:30	Visibility: good; Wind speed and direction: light breeze SSW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
20/06/2024	Breeding Raptor Survey	BR8	3:00 starting at 11:50	Visibility: good; Wind speed and direction: light breeze SSW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
25/06/2024	Breeding Raptor Survey	BR4	1:15 starting at 08:20	Visibility: poor; Wind speed and direction: gentle breeze NNW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/06/2024	Breeding Raptor Survey	BR4	1:45 starting at 09:35	Visibility: good; Wind speed and direction: gentle breeze NNW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
25/06/2024	Breeding Raptor Survey	BR11	3:00 starting at 11:35	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
27/06/2024	Breeding Raptor Survey	BR2	1:30 starting at 08:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		NL
27/06/2024	Breeding Raptor Survey	BR2	1:30 starting at 09:30	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		NL
27/06/2024	Breeding Raptor Survey	BR3	3:00 starting at 11:05	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		NL
04/07/2024	Breeding Raptor Survey	BR4	1:10 starting at 08:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
04/07/2024	Breeding Raptor Survey	BR4	1:50 starting at 09:40	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		NL
04/07/2024	Breeding Raptor Survey	BR12	3:00 starting at 11:37	Visibility: good; Wind speed and direction: moderate breeze WSW; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none	Long bursts of hot, sunny spells between showers	NL
09/07/2024	Breeding Raptor Survey	BR11	3:00 starting at 08:30	Visibility: moderate; Wind speed and direction: moderate breeze NNE; Cloud cover and height: 66-100% >500m; Rain: persistent; Frost: none; Snow: none		NL
09/07/2024	Breeding Raptor Survey	BR5	3:00 starting at 11:40	Visibility: moderate; Wind speed and direction: moderate breeze NNE; Cloud cover and height: 66-100% >500m; Rain: persistent; Frost: none; Snow: none	No Target species recorded	NL
18/07/2024	Breeding Raptor Survey	BR9	1:55 starting at 08:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		NL
18/07/2024	Breeding Raptor Survey	BR9	0:15 starting at 10:15	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		NL
18/07/2024	Breeding Raptor Survey	BR9	0:50 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		NL
18/07/2024	Breeding Raptor Survey	BR8	1:00 starting at 11:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
18/07/2024	Breeding Raptor Survey	BR8	2:00 starting at 12:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		NL
25/07/2024	Breeding Raptor Survey	BR2	2:00 starting at 08:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No Target species recorded	NL
25/07/2024	Breeding Raptor Survey	BR2	1:00 starting at 10:30	Visibility: poor; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none	No Target species recorded	NL
25/07/2024	Breeding Raptor Survey	BR3	3:00 starting at 11:45	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Moved BR slightly up the road due to accsss issues	NL

Table 4 Breeding woodcock survey effort.

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
18/05/2021	Breeding Woodcock Survey	WKT1	2:00 starting at 20:20	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JG
27/05/2021	Breeding Woodcock Survey	WKT1	2:00 starting at 20:30	Visibility: moderate; Wind speed and direction: light air S; Cloud cover and height: 0-33% <150m; Rain: drizzle; Frost: none; Snow: none		JG
25/05/2021	Breeding Woodcock Survey	WKT3	1:50 starting at 20:45	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Roding males on site	TR
31/05/2021	Breeding Woodcock Survey	WKT4	1:45 starting at 20:45	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Roding males on site	TR
01/05/2021	Breeding Woodcock Survey	WKT1	2:00 starting at 20:46	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JG
03/06/2021	Breeding Woodcock Survey	WKT3	2:00 starting at 21:46	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JG
09/06/2021	Breeding Woodcock Survey	WKT4	2:00 starting at 20:57	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JG
14/06/2021	Breeding Woodcock Survey	WKT2	2:00 starting at 21:00	Visibility: good; Wind speed and direction: light air N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JG
15/06/2021	Breeding Woodcock Survey	WKT1	2:00 starting at 21:00	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
16/06/2021	Breeding Woodcock Survey	WKT3	2:00 starting at 21:00	Visibility: good; Wind speed and direction: light air NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JG
23/06/2021	Breeding Woodcock Survey	WKT4	2:00 starting at 21:03	Visibility: good; Wind speed and direction: light air NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JG
28/06/2021	Breeding Woodcock Survey	WKT2	2:00 starting at 21:03	Visibility: good; Wind speed and direction: light air E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JG
18/05/2022	Breeding Woodcock Survey	WKT1	2:30 starting at 20:00	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/05/2022	Breeding Woodcock Survey	WKT2	2:14 starting at 20:31	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
30/05/2022	Breeding Woodcock Survey	WKT3	2:19 starting at 20:36	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
09/06/2022	Breeding Woodcock Survey	WKT1	2:00 starting at 21:10	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No woodcock sightings.	CR
13/06/2022	Breeding Woodcock Survey	WKT2	2:00 starting at 21:03	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
20/06/2022	Breeding Woodcock Survey	WKT3	2:00 starting at 21:10	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
27/06/2022	Breeding Woodcock Survey	WKT2	2:00 starting at 21:01	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
29/06/2022	Breeding Woodcock Survey	WKT1	2:00 starting at 21:05	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
30/06/2022	Breeding Woodcock Survey	WKT3	2:00 starting at 21:07	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
04/05/2023	Breeding Woodcock Survey	WKT1	2:00 starting at 20:00	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No woodcock observed	CR
05/05/2023	Breeding Woodcock Survey	WKT2	2:00 starting at 20:08	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/05/2023	Breeding Woodcock Survey	WKT3	2:00 starting at 20:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
06/06/2023	Breeding Woodcock Survey	WKT1	2:00 starting at 21:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
07/06/2023	Breeding Woodcock Survey	WKT2	2:00 starting at 21:05	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
13/06/2023	Breeding Woodcock Survey	WKT3	2:00 starting at 21:05	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
19/06/2023	Breeding Woodcock Survey	WKT1	2:00 starting at 21:08	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
21/06/2023	Breeding Woodcock Survey	WKT2	2:00 starting at 21:12	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
27/06/2023	Breeding Woodcock Survey	WKT3	2:00 starting at 21:05	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/05/2024	Breeding Woodcock Survey	WKT3	2:00 starting at 08:20	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD
16/05/2024	Breeding Woodcock Survey	WKT2	2:00 starting at 20:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		PM
16/05/2024	Breeding Woodcock Survey	WKT2	2:00 starting at 20:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	dry evening following heavy rain earlier	SD
30/05/2024	Breeding Woodcock Survey	WKT1	2:00 starting at 08:50	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD
30/05/2024	Breeding Woodcock Survey	WKT1	2:00 starting at 20:45	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No Woodcock seen	CC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
30/05/2024	Breeding Woodcock Survey	WKT2	2:00 starting at 20:50	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		PM
12/06/2024	Breeding Woodcock Survey	WKT3	2:00 starting at 21:00	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		BC
12/06/2024	Breeding Woodcock Survey	WKT2	2:00 starting at 21:00	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD
30/06/2024	Breeding Woodcock Survey	WKT1	2:00 starting at 21:00	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		SD

Table 5 Breeding kingfisher survey effort.

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
19/05/2023	Breeding Kingfisher Survey	BF1	3:00 starting at 12:15	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/05/2023	Breeding Kingfisher Survey	BF1	3:00 starting at 15:45	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Table 6 Breeding barn owl survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/05/2021	Breeding Barn Owl Survey	BOVP1	1:30 starting at 21:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Probable breeding	TR
08/06/2021	Breeding Barn Owl Survey	BOVP1	2:30 starting at 21:00	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No barn owl observations, weather conditions were not ideal for BO activity.	TR
15/07/2021	Breeding Barn Owl Survey	BOVP1	2:30 starting at 21:00	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Barn owl present	TR
16/05/2022	Breeding Barn Owl Survey	BOVP1	3:00 starting at 19:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/06/2022	Breeding Barn Owl Survey	BOVP1	3:00 starting at 20:12	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
08/07/2022	Breeding Barn Owl Survey	BOVP1	3:00 starting at 20:30	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
05/04/2023	Breeding Barn Owl Survey	BOVP1	2:00 starting at 19:16	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/05/2023	Breeding Barn Owl Survey	BOVP1	2:00 starting at 20:10	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
20/06/2023	Breeding Barn Owl Survey	BOVP1	2:00 starting at 21:11	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
11/07/2023	Breeding Barn Owl Survey	BOVP1	2:00 starting at 21:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Table 7 Winter walkover survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
16/11/2020	Winter Walkover Survey		1:00 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
16/11/2020	Winter Walkover Survey		1:00 starting at 10:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
16/11/2020	Winter Walkover Survey		1:00 starting at 11:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
16/11/2020	Winter Walkover Survey		1:00 starting at 12:30	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
16/11/2020	Winter Walkover Survey		1:00 starting at 13:30	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
16/11/2020	Winter Walkover Survey		1:00 starting at 14:30	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 09:45	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 10:45	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 11:45	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 13:00	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 14:00	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
21/01/2021	Winter Walkover Survey		1:00 starting at 15:00	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
11/02/2021	Winter Walkover Survey		1:00 starting at 09:45	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
11/02/2021	Winter Walkover Survey		1:00 starting at 10:45	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
11/02/2021	Winter Walkover Survey		1:00 starting at 11:45	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
11/02/2021	Winter Walkover Survey		1:00 starting at 13:00	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/02/2021	Winter Walkover Survey		1:00 starting at 14:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
18/02/2021	Winter Walkover Survey		1:00 starting at 15:00	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
03/03/2021	Winter Walkover Survey		1:00 starting at 09:45	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Winter Walkover Survey		1:00 starting at 10:45	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Winter Walkover Survey		1:00 starting at 11:45	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Winter Walkover Survey		1:00 starting at 12:45	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Winter Walkover Survey		1:00 starting at 13:45	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Winter Walkover Survey		1:00 starting at 14:45	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
13/10/2021	Winter Walkover Survey	T1	3:00 starting at 10:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
13/10/2021	Winter Walkover Survey	T1	3:00 starting at 14:24	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/10/2021	Winter Walkover Survey	T2	3:00 starting at 13:00	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
15/10/2021	Winter Walkover Survey	T3	3:00 starting at 13:10	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/01/2022	Winter Walkover Survey	T1	3:04 starting at 12:01	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
13/01/2022	Winter Walkover Survey	T2	3:01 starting at 12:06	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
17/01/2022	Winter Walkover Survey	T3	3:00 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
18/01/2022	Winter Walkover Survey	T4	3:03 starting at 11:51	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/02/2022	Winter Walkover Survey	T1	3:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
22/02/2022	Winter Walkover Survey	T1	3:00 starting at 13:00	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
23/02/2022	Winter Walkover Survey	T2	3:00 starting at 10:00	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
23/02/2022	Winter Walkover Survey	T2	3:00 starting at 13:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
21/03/2022	Winter Walkover Survey	T1	3:02 starting at 12:56	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
22/03/2022	Winter Walkover Survey	T2	3:00 starting at 14:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
23/03/2022	Winter Walkover Survey	T3	3:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
24/03/2022	Winter Walkover Survey	T4	3:00 starting at 14:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
04/10/2022	Winter Walkover Survey	T1	4:00 starting at 13:50	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/10/2022	Winter Walkover Survey	T2	3:00 starting at 14:15	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/10/2022	Winter Walkover Survey	T3	3:00 starting at 14:52	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/10/2022	Winter Walkover Survey	T4	3:00 starting at 16:20	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/11/2022	Winter Walkover Survey	T1	3:00 starting at 08:15	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
22/11/2022	Winter Walkover Survey	T2	3:00 starting at 12:20	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/11/2022	Winter Walkover Survey	T3	3:00 starting at 12:21	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/01/2023	Winter Walkover Survey	T1	3:00 starting at 12:43	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
18/01/2023	Winter Walkover Survey	T2	3:00 starting at 12:05	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none		CR
23/01/2023	Winter Walkover Survey	T3	3:00 starting at 13:58	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
25/01/2023	Winter Walkover Survey	Barn Owl Site Visit	3:00 starting at 13:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
30/01/2023	Winter Walkover Survey	T4	3:00 starting at 13:35	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/03/2023	Winter Walkover Survey	T1	3:00 starting at 13:30	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
16/03/2023	Winter Walkover Survey	T2	3:00 starting at 08:40	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
22/03/2023	Winter Walkover Survey	T3	3:00 starting at 11:20	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/03/2023	Winter Walkover Survey	T4	3:00 starting at 13:43	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
03/10/2023	Winter Walkover Survey	T1	3:00 starting at 14:45	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
05/10/2023	Winter Walkover Survey	T2	3:00 starting at 14:35	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/10/2023	Winter Walkover Survey	T3	3:00 starting at 14:30	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/11/2023	Winter Walkover Survey	T4	3:00 starting at 12:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Carry over survey from October	CR
13/11/2023	Winter Walkover Survey	T1	2:30 starting at 12:45	Visibility: good; Wind speed and direction: near gale S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
14/11/2023	Winter Walkover Survey	T2	3:30 starting at 11:35	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/11/2023	Winter Walkover Survey	T3	3:00 starting at 12:05	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
29/11/2023	Winter Walkover Survey	T4	3:00 starting at 14:25	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/01/2024	Winter Walkover Survey	T1	3:00 starting at 11:10	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/01/2024	Winter Walkover Survey	T2	3:00 starting at 11:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
12/01/2024	Winter Walkover Survey	T3	3:00 starting at 13:25	Visibility: good; Wind speed and direction: near gale S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
26/01/2024	Winter Walkover Survey	T4	3:00 starting at 11:22	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/03/2024	Winter Walkover Survey	T1	3:00 starting at 13:47	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/03/2024	Winter Walkover Survey	T2	3:00 starting at 09:10	Visibility: poor; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
21/03/2024	Winter Walkover Survey	T3	3:00 starting at 12:25	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
27/03/2024	Winter Walkover Survey	T4	3:00 starting at 12:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/10/2024	Winter Walkover Survey	T1, T2, T3	6:00 starting at 10:30	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
05/11/2024	Winter Walkover Survey	T1	3:35 starting at 11:25	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
06/11/2024	Winter Walkover Survey	T2, T3	3:30 starting at 11:30	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CC
13/01/2025	Winter Walkover Survey	T1, T2	3:00 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		ZE
13/01/2025	Winter Walkover Survey	T1, T2	2:00 starting at 12:30	Visibility: good; Wind speed and direction: moderate breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		ZE
13/01/2025	Winter Walkover Survey	T1, T2	1:15 starting at 14:30	Visibility: good; Wind speed and direction: moderate breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
04/03/2025	Winter Walkover Survey	T1,T2	6:00 starting at 08:50	Visibility: good; Wind speed and direction: gentle breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE

Table 8 Hen harrier roost survey effort.

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
20/10/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 16:50	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
20/10/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 17:50	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
21/10/2020	Hen Harrier Roost Survey	HHVP3	1:00 starting at 16:50	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
21/10/2020	Hen Harrier Roost Survey	HHVP3	1:00 starting at 17:50	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
22/10/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 16:49	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
22/10/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 17:49	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/10/2020	Hen Harrier Roost Survey	HHVP1	1:00 starting at 16:46	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/10/2020	Hen Harrier Roost Survey	HHVP1	1:00 starting at 17:46	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/11/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 14:50	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/11/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 15:50	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
24/11/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 14:50	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
24/11/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 15:50	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
25/11/2020	Hen Harrier Roost Survey	HHVP4	1:00 starting at 14:50	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
25/11/2020	Hen Harrier Roost Survey	HHVP4	1:00 starting at 15:50	Visibility: poor; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/11/2020	Hen Harrier Roost Survey	HHVP6	1:00 starting at 14:49	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
26/11/2020	Hen Harrier Roost Survey	HHVP6	1:00 starting at 15:49	Visibility: poor; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/12/2020	Hen Harrier Roost Survey	HHVP4	1:00 starting at 08:00	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/12/2020	Hen Harrier Roost Survey	HHVP4	1:00 starting at 09:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
09/12/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 14:40	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
09/12/2020	Hen Harrier Roost Survey	HHVP2	1:00 starting at 15:40	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
17/12/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 07:45	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
17/12/2020	Hen Harrier Roost Survey	HHVP5	1:00 starting at 08:45	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
17/12/2020	Hen Harrier Roost Survey	HHVP1	1:00 starting at 14:40	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
17/12/2020	Hen Harrier Roost Survey	HHVP1	1:00 starting at 15:40	Visibility: poor; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
14/01/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 15:10	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
14/01/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 16:10	Visibility: poor; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
19/01/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 15:20	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
19/01/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 16:20	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
20/01/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 15:20	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
20/01/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 16:20	Visibility: moderate; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
28/01/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 15:35	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
28/01/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 16:35	Visibility: moderate; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
18/02/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 16:15	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/02/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 17:15	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JH
19/02/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 16:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
19/02/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 17:20	Visibility: poor; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
23/02/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 16:30	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
23/02/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 17:30	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
24/02/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 16:30	Visibility: moderate; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		JH
24/02/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 17:30	Visibility: poor; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
02/03/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 16:40	Visibility: moderate; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
02/03/2021	Hen Harrier Roost Survey	HHVP1	1:00 starting at 17:40	Visibility: poor; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
03/03/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 16:40	Visibility: moderate; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
03/03/2021	Hen Harrier Roost Survey	HHVP2	1:00 starting at 17:40	Visibility: poor; Wind speed and direction: light breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Low lying fog	JH
08/03/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 16:50	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
08/03/2021	Hen Harrier Roost Survey	HHVP4	1:00 starting at 17:50	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
11/03/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 16:57	Visibility: moderate; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
11/03/2021	Hen Harrier Roost Survey	HHVP5	1:00 starting at 17:57	Visibility: poor; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
12/10/2021	Hen Harrier Roost Survey	HHVP5	2:02 starting at 17:13	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
14/10/2021	Hen Harrier Roost Survey	HHVP2	2:12 starting at 17:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
15/10/2021	Hen Harrier Roost Survey	HHVP1	2:08 starting at 16:57	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none	About 30 minutes were lost due to disturbance by cattle. No hen harriers seen.	CR
28/10/2021	Hen Harrier Roost Survey	HHVP4	2:05 starting at 16:40	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers seen.	CR
11/11/2021	Hen Harrier Roost Survey	HHVP1	2:10 starting at 15:05	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/11/2021	Hen Harrier Roost Survey	HHVP4	2:11 starting at 15:02	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
02/12/2021	Hen Harrier Roost Survey	HHVP2	2:10 starting at 14:50	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No hen harrier observed.	CR
13/12/2021	Hen Harrier Roost Survey	HHVP5	2:15 starting at 14:45	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harrier observed.	CR
12/01/2022	Hen Harrier Roost Survey	HHVP5	2:00 starting at 15:16	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
13/01/2022	Hen Harrier Roost Survey	HHVP1	1:59 starting at 15:18	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
17/01/2022	Hen Harrier Roost Survey	HHVP2	2:03 starting at 15:15	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
18/01/2022	Hen Harrier Roost Survey	HHVP4	2:08 starting at 15:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/02/2022	Hen Harrier Roost Survey	HHVP1	2:00 starting at 16:00	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
08/02/2022	Hen Harrier Roost Survey	HHVP2	2:00 starting at 16:02	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
10/02/2022	Hen Harrier Roost Survey	HHVP4	2:05 starting at 16:10	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
11/02/2022	Hen Harrier Roost Survey	HHVP5	2:00 starting at 16:11	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
21/02/2022	Hen Harrier Roost Survey	HHVP1	2:02 starting at 16:28	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
22/02/2022	Hen Harrier Roost Survey	HHVP2	2:00 starting at 16:29	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
23/02/2022	Hen Harrier Roost Survey	HHVP4	1:57 starting at 16:33	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed	CR
24/02/2022	Hen Harrier Roost Survey	HHVP5	2:02 starting at 16:38	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 33-66% >500m; Rain: light showers; Frost: none; Snow: none	No hen harriers observed	CR
21/03/2022	Hen Harrier Roost Survey	HHVP5	2:05 starting at 17:15	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
22/03/2022	Hen Harrier Roost Survey	HHVP1	2:00 starting at 17:17	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
23/03/2022	Hen Harrier Roost Survey	HHVP4	2:00 starting at 17:18	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
24/03/2022	Hen Harrier Roost Survey	HHVP2	2:00 starting at 17:21	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No hen harriers observed.	CR
05/10/2022	Hen Harrier Roost Survey	HHVP5	2:00 starting at 17:25	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/10/2022	Hen Harrier Roost Survey	HHVP1	2:03 starting at 17:27	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
17/10/2022	Hen Harrier Roost Survey	HHVP2	2:05 starting at 16:55	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/10/2022	Hen Harrier Roost Survey	HHVP4	2:10 starting at 17:00	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
02/11/2022	Hen Harrier Roost Survey	HHVP5	2:00 starting at 15:33	Visibility: moderate; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
08/11/2022	Hen Harrier Roost Survey	HHVP1	2:05 starting at 15:35	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/11/2022	Hen Harrier Roost Survey	HHVP4	2:00 starting at 15:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
24/11/2022	Hen Harrier Roost Survey	HHVP2	2:00 starting at 15:33	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
05/12/2022	Hen Harrier Roost Survey	HHVP5	2:21 starting at 14:36	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/12/2022	Hen Harrier Roost Survey	HHVP1	1:54 starting at 14:45	Visibility: poor; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: heavy; Snow: none		CR
14/12/2022	Hen Harrier Roost Survey	HHVP2	2:02 starting at 14:46	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		CR
15/12/2022	Hen Harrier Roost Survey	HHVP4	2:07 starting at 14:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: heavy; Snow: none		CR
09/01/2023	Hen Harrier Roost Survey	HHVP1	2:00 starting at 15:30	Visibility: good; Wind speed and direction: moderate breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
16/01/2023	Hen Harrier Roost Survey	HHVP5	1:55 starting at 15:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
18/01/2023	Hen Harrier Roost Survey	HHVP4	2:00 starting at 15:15	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: light; Snow: none		CR
19/01/2023	Hen Harrier Roost Survey	HHVP2	2:00 starting at 15:13	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: light; Snow: none		CR
07/02/2023	Hen Harrier Roost Survey	HHVP1	2:00 starting at 15:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/02/2023	Hen Harrier Roost Survey	HHVP5	2:00 starting at 15:56	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/02/2023	Hen Harrier Roost Survey	HHVP2	2:05 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
22/02/2023	Hen Harrier Roost Survey	HHVP2	2:00 starting at 16:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
02/03/2023	Hen Harrier Roost Survey	HHVP4	2:00 starting at 16:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/03/2023	Hen Harrier Roost Survey	HHVP1	2:00 starting at 17:17	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
27/03/2023	Hen Harrier Roost Survey	HHVP5	2:00 starting at 18:44	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
31/03/2023	Hen Harrier Roost Survey	HHVP2	2:00 starting at 06:11	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
03/10/2023	Hen Harrier Roost Survey	HHVP4	2:00 starting at 17:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No hen harrier recorded.	CR
05/10/2023	Hen Harrier Roost Survey	HHVP5	2:00 starting at 17:45	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
09/10/2023	Hen Harrier Roost Survey	HHVP2	2:00 starting at 17:35	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/11/2023	Hen Harrier Roost Survey	HHVP2	2:00 starting at 15:45	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Carry over survey from October	CR
09/11/2023	Hen Harrier Roost Survey	HHVP1	2:00 starting at 15:36	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/11/2023	Hen Harrier Roost Survey	HHVP5	2:00 starting at 15:20	Visibility: moderate; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		CR
14/11/2023	Hen Harrier Roost Survey	HHVP4	2:00 starting at 15:18	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
28/11/2023	Hen Harrier Roost Survey	HHVP2	2:10 starting at 15:15	Visibility: good; Wind speed and direction: moderate breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
04/12/2023	Hen Harrier Roost Survey	HHVP1	2:45 starting at 14:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
05/12/2023	Hen Harrier Roost Survey	HHVP2	3:00 starting at 13:50	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
06/12/2023	Hen Harrier Roost Survey	HHVP4	3:00 starting at 13:49	Visibility: good; Wind speed and direction: strong breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/12/2023	Hen Harrier Roost Survey	HHVP2	3:00 starting at 13:53	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
08/01/2024	Hen Harrier Roost Survey	HHVP2	3:00 starting at 14:05	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
10/01/2024	Hen Harrier Roost Survey	HHVP5	3:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/01/2024	Hen Harrier Roost Survey	HHVP4	3:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
26/01/2024	Hen Harrier Roost Survey	HHVP2	3:00 starting at 14:42	Visibility: good; Wind speed and direction: strong breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/02/2024	Hen Harrier Roost Survey	HHVP2	3:00 starting at 15:10	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
13/02/2024	Hen Harrier Roost Survey	HHVP4	3:00 starting at 15:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
15/02/2024	Hen Harrier Roost Survey	HHVP1	3:00 starting at 15:14	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
23/02/2024	Hen Harrier Roost Survey	HHVP2	3:00 starting at 15:25	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
11/03/2024	Hen Harrier Roost Survey	HHVP1	2:07 starting at 17:08	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/03/2024	Hen Harrier Roost Survey	HHVP2	2:07 starting at 17:09	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/03/2024	Hen Harrier Roost Survey	HHVP5	2:05 starting at 17:15	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/03/2024	Hen Harrier Roost Survey	HHVP2	2:00 starting at 17:35	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
17/10/2024	Hen Harrier Roost Survey	HHVP7	2:30 starting at 16:58	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		CC
21/10/2024	Hen Harrier Roost Survey	HHVP2	2:30 starting at 16:49	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none	No harriers recorded	CC
22/10/2024	Hen Harrier Roost Survey	HHVP1	2:30 starting at 16:48	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No harriers recorded	CC
30/10/2024	Hen Harrier Roost Survey	HHVP6	2:30 starting at 15:30	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CC
05/11/2024	Hen Harrier Roost Survey	HHVP1	2:30 starting at 15:19	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No Harriers recorded	CC
06/11/2024	Hen Harrier Roost Survey	HHVP7	2:30 starting at 15:17	Visibility: moderate; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No Harriers recorded	CC
25/11/2024	Hen Harrier Roost Survey	HHVP2	2:30 starting at 14:50	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CC

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
27/11/2024	Hen Harrier Roost Survey	HHVP6	2:30 starting at 14:50	Visibility: limited; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% <150m; Rain: none; Frost: light; Snow: none	Thick Fog	CC
09/12/2024	Hen Harrier Roost Survey	HHVP6	2:30 starting at 14:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		FOD
10/12/2024	Hen Harrier Roost Survey	HHVP2	2:30 starting at 14:50	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		FOD
17/12/2024	Hen Harrier Roost Survey	HHVP7	2:30 starting at 14:40	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		FOD
18/12/2024	Hen Harrier Roost Survey	HHVP1	2:30 starting at 14:40	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		FOD
09/01/2025	Hen Harrier Roost Survey	HHVP1	1:30 starting at 15:00	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none	no hen harrier observed	ZE
09/01/2025	Hen Harrier Roost Survey	HHVP1	1:00 starting at 16:30	Visibility: moderate; Wind speed and direction: light breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none	fog forming over the bog	ZE
10/01/2025	Hen Harrier Roost Survey	HHVP7	2:30 starting at 15:00	Visibility: good; Wind speed and direction: gentle breeze ESE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none	no hen harrier observed	ZE
28/01/2025	Hen Harrier Roost Survey	HHVP6	2:30 starting at 15:30	Visibility: good; Wind speed and direction: gentle breeze WNW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE
29/01/2025	Hen Harrier Roost Survey	HHVP2	2:30 starting at 15:40	Visibility: good; Wind speed and direction: gentle breeze NNW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE
05/01/2025	Hen Harrier Roost Survey	HHVP2	2:30 starting at 15:45	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed; lapwing roosting on field adjacent to the bog	ZE
06/01/2025	Hen Harrier Roost Survey	HHVP7	2:30 starting at 15:50	Visibility: good; Wind speed and direction: gentle breeze ESE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	no hen harrier observe; clear sky; frost on ground at the end of the survey	ZE
18/02/2025	Hen Harrier Roost Survey	HHVP6	2:30 starting at 16:10	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE
19/02/2025	Hen Harrier Roost Survey	HHVP1	2:30 starting at 16:15	Visibility: moderate; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none	no hen harrier observed; three 10 mintes long dry breaks	ZE
05/03/2025	Hen Harrier Roost Survey	HHVP7	2:30 starting at 16:45	Visibility: good; Wind speed and direction: gentle breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
06/03/2025	Hen Harrier Roost Survey	HHVP2	2:30 starting at 16:45	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE
19/03/2025	Hen Harrier Roost Survey	HHVP6	2:30 starting at 17:05	Visibility: good; Wind speed and direction: light breeze SE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE
20/03/2025	Hen Harrier Roost Survey	HHVP1	2:30 starting at 17:05	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	no hen harrier observed	ZE

Table 9 Waterbird distribution and abundance survey effort

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:30	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:30	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:30	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:30	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
21/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:30	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:30	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:00	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:00	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
28/10/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 15:00	Visibility: good; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: heavy showers; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
09/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:15	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
27/11/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:40	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		JH
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:15	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none		JH
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:15	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
03/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:15	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:00	Visibility: poor; Wind speed and direction: strong breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:00	Visibility: poor; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:00	Visibility: moderate; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% <150m; Rain: heavy showers; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
18/12/2020	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:45	Visibility: good; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:45	Visibility: moderate; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JH
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:45	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:45	Visibility: poor; Wind speed and direction: strong breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:45	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
11/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:45	Visibility: poor; Wind speed and direction: fresh breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: heavy; Snow: none	Minus 3 degrees C	JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
25/01/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:45	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JH
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: heavy; Snow: none		JH
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
09/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:30	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 09:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 10:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 11:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 12:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
25/02/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:30	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		JH
15/03/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	10:35 starting at 06:55	Visibility: good; Wind speed and direction: gentle breeze W ; Cloud cover and height: 66-100% ; Rain: none; Frost: none; Snow: none	mostly overcast	PT
30/03/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	8:35 starting at 07:25	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% ; Rain: none; Frost: none; Snow: none	mainly sunny, partially cloudy for a time late morning	PT
23/04/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:05 starting at 10:22	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No Waterfowl Present	SOB
23/04/2021	Waterbird Distribution and Abundance Survey	Noggus/ArmstrongBridge/GrandCanal	0:55 starting at 10:50	Visibility: good; Wind speed and direction: moderate breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Walked along Grand Canal. No Waterfowl seen. Heard Cuckoo. Meadow pipits Seen.	SOB
23/04/2021	Waterbird Distribution and Abundance Survey	Noggusduff S R437	0:23 starting at 11:57	Visibility: good; Wind speed and direction: fresh breeze NW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Flooded cutover bog. Lots of Waterfowl. 1 Observation Point.	SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
23/04/2021	Waterbird Distribution and Abundance Survey	Cloghan Lough	0:35 starting at 12:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Cloghan Lough. 2 Observation Points. Waterfowl Present	SOB
23/04/2021	Waterbird Distribution and Abundance Survey	Lough Boora and Tumduff	0:36 starting at 13:20	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Lough Boora Park. 3 Observation Points. Breeding Waterfowl Present.	SOB
23/04/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:48 starting at 14:24	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	3 Observation points, and walkover section. Lots of Waterfowl present.	SOB
23/04/2021	Waterbird Distribution and Abundance Survey	Tarraun Nature Reserve	0:40 starting at 15:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	3 Observation points. And Walkover. Discovered way of conducting survey with no walkover survey was finished. Which I will use next time.	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:06 starting at 09:14	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	No Waterfowl Present	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Noggus/ArmstrongBridge/GrandCanal	0:54 starting at 09:29	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none	No Waterfowl Present at time of obs. Spoke to local, said 4 moorhen live in area.	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Noggusduff S R437	0:40 starting at 10:34	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Cutover bog, flooded. Waterfowl Present. Surveyed from roadside. Pull in at Bord na Mona layby.	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Cloghan Lough	0:34 starting at 11:44	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed lake and some adjacent swamp.	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	1:00 starting at 12:40	Visibility: good; Wind speed and direction: light breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	Less people present than on previous day. Surveyed from a few vantage points.	SOB
29/04/2021	Waterbird Distribution and Abundance Survey	Tarraun Nature Reserve	0:46 starting at 14:02	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Surveyed reed swamp on left and lake on right from roadway.	SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
29/04/2021	Waterbird Distribution and Abundance Survey	Lough Boora and Tumduff	1:13 starting at 14:32	Visibility: moderate; Wind speed and direction: moderate breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	No fishermen on lake. People present. Surveyed from lakeshore and roadside.	SOB
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		JG
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JG
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 15:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		JG
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 16:00	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: drizzle; Frost: none; Snow: none		JG
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 17:00	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JG
18/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 18:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 13:30	Visibility: poor; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 14:30	Visibility: poor; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 15:30	Visibility: poor; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 16:30	Visibility: moderate; Wind speed and direction: light breeze SW; Cloud cover and height: 66-100% <150m; Rain: light showers; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 17:30	Visibility: moderate; Wind speed and direction: light breeze S; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JG
27/05/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	1:00 starting at 18:30	Visibility: moderate; Wind speed and direction: light air S; Cloud cover and height: 66-100% <150m; Rain: drizzle; Frost: none; Snow: none		JG

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
03/08/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 10:45	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
17/08/2021	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:40	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		JG
01/09/2021	Waterbird Distribution and Abundance Survey	Noggus/Armstrong Bridge	0:30 starting at 12:15	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	R437	0:30 starting at 13:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:40 starting at 13:50	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:50 starting at 15:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:30 starting at 16:15	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Tumduff	0:25 starting at 17:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Tarraun	0:25 starting at 17:45	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
01/09/2021	Waterbird Distribution and Abundance Survey	Derries	0:20 starting at 18:20	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Noggus/Armstrong Bridge	0:20 starting at 15:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	R437	0:20 starting at 15:40	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:40 starting at 16:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
14/09/2021	Waterbird Distribution and Abundance Survey	Tarraun	0:25 starting at 17:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Derries	0:15 starting at 17:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Tumduff	0:20 starting at 18:25	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:25 starting at 19:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
14/09/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:20 starting at 19:40	Visibility: moderate; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		SOB
12/10/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:10 starting at 09:45	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/10/2021	Waterbird Distribution and Abundance Survey	Grand Canal	0:17 starting at 10:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Walked along the canal. No wildfowl observed.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Noggusduff	0:41 starting at 10:23	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:40 starting at 11:20	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Drinagh	0:20 starting at 12:09	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	No wildfowl seen.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Derrybratt	0:33 starting at 12:42	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/10/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:34 starting at 13:26	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Tumduff Wetlands	0:40 starting at 14:25	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
12/10/2021	Waterbird Distribution and Abundance Survey	Finammore Lakes	0:30 starting at 15:20	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
12/10/2021	Waterbird Distribution and Abundance Survey	Tarraun Wetlands	0:36 starting at 15:56	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/10/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:10 starting at 09:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/10/2021	Waterbird Distribution and Abundance Survey	Grand Canal	0:15 starting at 10:10	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/10/2021	Waterbird Distribution and Abundance Survey	Noggusduff	0:40 starting at 10:35	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
27/10/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:37 starting at 11:23	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
27/10/2021	Waterbird Distribution and Abundance Survey	Drinagh	0:44 starting at 12:06	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
27/10/2021	Waterbird Distribution and Abundance Survey	Derrybratt	0:36 starting at 13:18	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/10/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:39 starting at 14:31	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Surveyed from two positions.	CR
27/10/2021	Waterbird Distribution and Abundance Survey	Tumduff Wetlands	0:52 starting at 15:18	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none	Surveyed from two positions. Persistent rain from 15:30 pm.	CR
27/10/2021	Waterbird Distribution and Abundance Survey	Finammore Lakes	0:25 starting at 16:25	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		CR
27/10/2021	Waterbird Distribution and Abundance Survey	Tarraun Wetlands	0:30 starting at 16:55	Visibility: moderate; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% 150-500m; Rain: persistent; Frost: none; Snow: none		CR
10/11/2021	Waterbird Distribution and Abundance Survey	Tarrun Nature Park	0:45 starting at 09:15	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
10/11/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:50 starting at 10:45	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two different positions.	CR
10/11/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:45 starting at 11:55	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from three different positions.	CR
10/11/2021	Waterbird Distribution and Abundance Survey	Tumduff	1:10 starting at 12:45	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from three different positions.	CR
10/11/2021	Waterbird Distribution and Abundance Survey	Derrybratt	0:30 starting at 14:10	Visibility: good; Wind speed and direction: gentle breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2021	Waterbird Distribution and Abundance Survey	Drinagh	0:40 starting at 15:15	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:15 starting at 16:05	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
10/11/2021	Waterbird Distribution and Abundance Survey	Noggusduff	0:30 starting at 16:25	Visibility: good; Wind speed and direction: light breeze E; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Unable to visit Grand Canal and Ferbane Bridge due to time constraints.	CR
24/11/2021	Waterbird Distribution and Abundance Survey	Ferbane bridge	0:10 starting at 09:10	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	No wildfowl	CR
24/11/2021	Waterbird Distribution and Abundance Survey	Grand canal	0:19 starting at 09:26	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none	Walked along canal, no wildfowl observed.	CR
24/11/2021	Waterbird Distribution and Abundance Survey	Noggusduff	1:05 starting at 09:50	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% <150m; Rain: none; Frost: none; Snow: none		CR
24/11/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:25 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		CR
24/11/2021	Waterbird Distribution and Abundance Survey	Drinagh	1:05 starting at 11:35	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none	Surveyed from two different positions.	CR
24/11/2021	Waterbird Distribution and Abundance Survey	Derrybratt	0:25 starting at 13:20	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
24/11/2021	Waterbird Distribution and Abundance Survey	Tumduff Wetlands	0:55 starting at 14:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none	Surveyed from three different positions.	CR
24/11/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:40 starting at 15:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none		CR
24/11/2021	Waterbird Distribution and Abundance Survey	Tarraun Wetlands	1:00 starting at 16:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 0-33% <150m; Rain: none; Frost: none; Snow: none	Didn't conduct a survey at Finnamore Lakes as access wasn't allowed due to bird flu outbreak.	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:08 starting at 09:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Grand Canal	0:15 starting at 09:17	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Noggusduff	1:13 starting at 09:40	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:25 starting at 11:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Drinagh	0:55 starting at 11:35	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Derrybrat	0:33 starting at 13:02	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
09/12/2021	Waterbird Distribution and Abundance Survey	Tumduff	1:00 starting at 14:00	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% 150-500m; Rain: drizzle; Frost: none; Snow: none	Surveyed from three positions.	CR
09/12/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:31 starting at 15:05	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		CR
09/12/2021	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:55 starting at 15:50	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	No survey at Finnamore Lakes due to Avian Flu outbreak.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:11 starting at 09:19	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl.	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
22/12/2021	Waterbird Distribution and Abundance Survey	Grand Canal	0:20 starting at 09:38	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Noggusduff	0:51 starting at 10:14	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:25 starting at 11:15	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Drinagh	0:45 starting at 12:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Derrybrat	0:33 starting at 12:57	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
22/12/2021	Waterbird Distribution and Abundance Survey	Tumduff	1:04 starting at 13:51	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from three positions.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Lough Boora	0:24 starting at 15:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
22/12/2021	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:18 starting at 15:30	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from three positions.	CR
22/12/2021	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:48 starting at 16:00	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
07/01/2022	Waterbird Distribution and Abundance Survey	Tumduff	1:05 starting at 09:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none	Surveyed from three positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Lough Boora	0:25 starting at 10:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: light; Snow: none	Surveyed from two positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:20 starting at 11:20	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:45 starting at 11:50	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
07/01/2022	Waterbird Distribution and Abundance Survey	Derrybrat	0:39 starting at 12:50	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/01/2022	Waterbird Distribution and Abundance Survey	Drinagh	1:00 starting at 13:39	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:23 starting at 15:25	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Noggusduff	0:22 starting at 15:55	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
07/01/2022	Waterbird Distribution and Abundance Survey	Grand Canal	0:14 starting at 16:24	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/01/2022	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:10 starting at 16:44	Visibility: good; Wind speed and direction: light breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
28/01/2022	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:08 starting at 10:10	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CR
28/01/2022	Waterbird Distribution and Abundance Survey	Grand Canal	0:05 starting at 10:26	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CR
28/01/2022	Waterbird Distribution and Abundance Survey	Noggusduff	0:38 starting at 10:36	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% 150-500m; Rain: drizzle; Frost: none; Snow: none	Surveyed from two positions	CR
28/01/2022	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:24 starting at 11:20	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
28/01/2022	Waterbird Distribution and Abundance Survey	Drinagh	0:55 starting at 11:50	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
28/01/2022	Waterbird Distribution and Abundance Survey	Derrybrat	0:35 starting at 13:15	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CR
28/01/2022	Waterbird Distribution and Abundance Survey	Tumduff	1:05 starting at 14:10	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed from three positions	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
28/01/2022	Waterbird Distribution and Abundance Survey	Lough Boora	0:30 starting at 15:20	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
28/01/2022	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:29 starting at 15:55	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none	Surveyed from three positions	CR
28/01/2022	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:39 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		CR
09/02/2022	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:36 starting at 10:17	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
09/02/2022	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:39 starting at 11:01	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from three positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Tumduff	0:57 starting at 12:06	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Lough Boora	0:34 starting at 13:07	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:24 starting at 14:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Drinagh	0:43 starting at 14:31	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Derrybrat	0:36 starting at 15:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
09/02/2022	Waterbird Distribution and Abundance Survey	Noggusduff	0:40 starting at 16:14	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Grand Canal	0:15 starting at 17:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl	CR
09/02/2022	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:10 starting at 17:22	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	No wildfowl	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
24/02/2022	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:48 starting at 10:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/02/2022	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:32 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
24/02/2022	Waterbird Distribution and Abundance Survey	Tumduff	0:47 starting at 11:43	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
24/02/2022	Waterbird Distribution and Abundance Survey	Lough Boora	0:30 starting at 12:45	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/02/2022	Waterbird Distribution and Abundance Survey	Derrybrat	0:40 starting at 13:30	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
24/02/2022	Waterbird Distribution and Abundance Survey	Drinagh	0:31 starting at 14:20	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
24/02/2022	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:30 starting at 15:00	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
24/02/2022	Waterbird Distribution and Abundance Survey	Noggusduff	0:47 starting at 15:39	Visibility: good; Wind speed and direction: moderate breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions. No visit to Grand Canal and Ferbane Bridge due to the time constraints.	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Ferbane Bridge	0:10 starting at 11:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	No wildfowl	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Grand Canal	0:22 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Walked along the canal, no wildfowl observed.	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Turraun Nature Park	0:25 starting at 12:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/03/2022	Waterbird Distribution and Abundance Survey	Finnamore Lakes	0:32 starting at 13:05	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Tumduff	1:05 starting at 13:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
16/03/2022	Waterbird Distribution and Abundance Survey	Lough Boora	0:31 starting at 14:55	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/03/2022	Waterbird Distribution and Abundance Survey	Derrybrat	0:38 starting at 15:39	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
16/03/2022	Waterbird Distribution and Abundance Survey	Drinagh	0:40 starting at 16:30	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Cloghan Lake	0:31 starting at 17:19	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions	CR
16/03/2022	Waterbird Distribution and Abundance Survey	Noggusduff	0:45 starting at 17:55	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Surveyed from two positions.	CR
01/04/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:00 starting at 09:30	Visibility: moderate; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		KS
12/04/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:12 starting at 12:23	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/04/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:04 starting at 12:35	Visibility: good; Wind speed and direction: fresh breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/05/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:10 starting at 11:20	Visibility: good; Wind speed and direction: strong breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/05/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:33 starting at 12:32	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
27/05/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	2:44 starting at 18:46	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
30/08/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
31/08/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:56	Visibility: good; Wind speed and direction: light breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
15/09/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 12:10	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Didn't go to Derrybrat due to road works.	CR
30/09/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:36 starting at 11:44	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/10/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 12:13	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
27/10/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/11/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:20	Visibility: good; Wind speed and direction: near gale N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
23/11/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:51 starting at 11:54	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/12/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:02	Visibility: good; Wind speed and direction: light breeze NE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	Didn't visit Ferbane Bridge and Grand Canal due to time constraints.	CR
19/12/2022	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:30 starting at 11:35	Visibility: good; Wind speed and direction: fresh breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
10/01/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 11:15	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
26/01/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 11:25	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/02/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:13	Visibility: good; Wind speed and direction: strong breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
21/02/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:45 starting at 08:30	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
07/03/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:26 starting at 10:16	Visibility: good; Wind speed and direction: moderate breeze N; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
21/03/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 10:39	Visibility: good; Wind speed and direction: fresh breeze N; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
12/04/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:40 starting at 12:40	Visibility: good; Wind speed and direction: near gale E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/04/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:20 starting at 10:50	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
12/05/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 12:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
25/05/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:50 starting at 11:30	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
19/09/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:20 starting at 12:50	Visibility: good; Wind speed and direction: near gale S; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		CR
06/10/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:05 starting at 11:25	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	(carry over survey from September).	CR
18/10/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 12:00	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: heavy showers; Frost: none; Snow: none		CR
09/11/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 09:25	Visibility: good; Wind speed and direction: near gale S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none	Carry over survey from October	CR
23/11/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:25 starting at 11:55	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
08/12/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:35	Visibility: good; Wind speed and direction: strong breeze W; Cloud cover and height: 33-66% >500m; Rain: drizzle; Frost: none; Snow: none	Carry over survey from November.	CR
21/12/2023	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:15 starting at 10:30	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
03/01/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:20	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none	Carry over survey from December	CR

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
18/01/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 11:20	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 0-33% >500m; Rain: none; Frost: heavy; Snow: none		CR
30/01/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:30 starting at 08:46	Visibility: good; Wind speed and direction: fresh breeze W; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none		CR
12/02/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 12:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		CR
27/02/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	5:58 starting at 08:35	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
13/03/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:06 starting at 12:19	Visibility: moderate; Wind speed and direction: moderate breeze E; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
26/03/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:40 starting at 10:20	Visibility: good; Wind speed and direction: fresh breeze S; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		CR
11/04/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:50	Visibility: good; Wind speed and direction: moderate breeze SW; Cloud cover and height: 66-100% >500m; Rain: light showers; Frost: none; Snow: none		NL
23/04/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:45	Visibility: good; Wind speed and direction: light breeze NNW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
14/05/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:30 starting at 08:30	Visibility: good; Wind speed and direction: gentle breeze NE; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL
30/05/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:00	Visibility: good; Wind speed and direction: strong breeze NW; Cloud cover and height: 66-100% >500m; Rain: drizzle; Frost: none; Snow: none		NL
15/08/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:25	Visibility: poor; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% <150m; Rain: persistent; Frost: none; Snow: none		NL
29/08/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:20	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% <150m; Rain: none; Frost: none; Snow: none		NL
12/09/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:15	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		NL

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
24/09/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:00 starting at 08:15	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		NL
11/10/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	7:30 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		FOD
31/10/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	7:30 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		FOD
14/11/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	7:30 starting at 09:00	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		FOD
26/11/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	7:30 starting at 09:00	Visibility: good; Wind speed and direction: light breeze SW; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		FOD
09/12/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:30 starting at 11:00	Visibility: good; Wind speed and direction: light breeze N; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: none; Snow: none		FOD
10/12/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:30 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		FOD
17/12/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:30 starting at 11:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 33-66% >500m; Rain: none; Frost: none; Snow: none		FOD
18/12/2024	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:30 starting at 11:00	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% >500m; Rain: none; Frost: none; Snow: none		FOD
07/01/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	6:30 starting at 09:45	Visibility: good; Wind speed and direction: gentle breeze W; Cloud cover and height: 33-66% 150-500m; Rain: none; Frost: heavy; Snow: none	many water bodies had large frozen parts; two very short snowfall and two short light showers	ZE
28/01/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:25 starting at 11:15	Visibility: good; Wind speed and direction: gentle breeze NW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
29/01/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:20 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze N; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		ZE
05/01/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:55 starting at 11:10	Visibility: good; Wind speed and direction: gentle breeze SW; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	clear sky	ZE

Date	Survey	Location	Duration (h)	Weather Conditions	Comments	Surveyor
06/01/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	3:50 starting at 11:10	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 0-33% >500m; Rain: none; Frost: none; Snow: none	clear sky	ZE
18/02/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	2:00 starting at 11:00	Visibility: moderate; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: light showers; Frost: none; Snow: none		ZE
18/02/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	2:30 starting at 13:00	Visibility: good; Wind speed and direction: moderate breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
19/02/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	4:40 starting at 11:00	Visibility: good; Wind speed and direction: moderate breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
05/03/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	4:20 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze SSW; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
06/03/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	4:30 starting at 11:30	Visibility: good; Wind speed and direction: gentle breeze S; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none		ZE
19/03/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	4:15 starting at 12:00	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 0-33% 150-500m; Rain: none; Frost: none; Snow: none		ZE
20/03/2025	Waterbird Distribution and Abundance Survey	8km Survey Radius	4:25 starting at 12:05	Visibility: good; Wind speed and direction: gentle breeze SE; Cloud cover and height: 66-100% 150-500m; Rain: none; Frost: none; Snow: none	crane at Derrybrat; person walking through reeds in the south part of Noggusduff bog probably causing disturbance	ZE

APPENDIX C

SURVEY DATA

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1. GOLDEN PLOVER

Table 1-1 Golden Plover Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
GP001	VP4	26/01/2021	10:19	Golden Plover	4	58	0	0	58	0	cutover bog and conifer plantation; travelling	JH
GP002	VP1	02/03/2021	09:46	Golden Plover	60	58	0	0	58	0	cutover bog and scrub; travelling	JH
GP003	VP5	11/03/2021	10:58	Golden Plover	200	64	0	0	64	0	improved agricultural grassland and cutover bog; travelling	JH
GP004	VP5	15/03/2021	-	Golden Plover	-	-	-	-	-	-	cutover bog; calling, heard only/ too dark	JH
GP005	VP1	07/10/2021	08:06	Golden Plover	26	87	0	0	87	0	cutover bog and improved grassland; flying, calling, flock of 26 birds observed. last seen heading south east.	CR
GP006	VP1	07/10/2021	08:29	Golden Plover	19	468	65	34	369	0	cutover bog and improved grassland; flying, calling, flock of 19 birds observed. last seen heading south.	CR
GP007	VP3	18/10/2021	12:26	Golden Plover	29	61	61	0	0	0	cutover bog; flying, flock of 29 birds observed flying low over the bog. dropped into an area of dense vegetation.	CR
GP008	VP3	18/10/2021	13:14	Golden Plover	2	-	-	-	-	-	cutover bog; calling, no visual but at least two birds heard calling in the general area where a flock had landed earlier.	CR
GP009	VP4	19/10/2021	09:57	Golden Plover	1	179	2	5	119	53	cutover bog; flying, calling, initially observed flying at high altitude before suddenly diving into the bogland north west of vp4.	CR
GP010	VP5	20/10/2021	09:34	Golden Plover	2	-	-	-	-	-	cutover bog and improved grassland; calling, no visual but at least two golden plovers heard calling to the south east of vp5.	CR
GP011	VP5	20/10/2021	12:12	Golden Plover	100	185	0	185	0	0	improved grassland and cutover bog; flying, flock of around 100 birds observed. last seen heading north east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
GP012	VP6	26/10/2021	09:10	Golden Plover	3	38	10	28	0	0	cutover bog and highly modified/non-native woodland; flying/calling, small flock of 3 birds observed heading north.	CR
GP013	VP6	26/10/2021	09:11	Golden Plover	2	17	17	0	0	0	cutover bog; flying/calling, observed flying low over the bog.	CR
GP014	VP6	26/10/2021	09:11	Golden Plover	2	14	14	0	0	0	cutover bog; flying/calling, most likely the same two birds observed just a few seconds earlier. last seen heading north east flying very low over the bog.	CR
GP015	VP2	03/12/2021	10:26	Golden Plover	2	141	24	10	67	40	cutover bog and improved grassland; flying, pair observed leaving the bog. last seen heading south at high altitude.	CR
GP016	VP4	25/02/2022	07:16	Golden Plover	25	25	0	25	0	0	cutover bog; flying	NS
GP017	VP1	14/03/2022	15:31	Golden Plover	250	3500	0	0	0	3500	cutover bog; flying, circa 250 flying for 1hr	NS
GP018	VP3	11/04/2022	08:40	Golden Plover	22	290	0	0	290	0	cutover bog; flying	NS
GP019	VP5	13/04/2022	09:47	Golden Plover	120	248	0	0	248	0	cutover bog; flying	NS
GP020	VP2	21/04/2022	09:02	Golden Plover	2	43	0	43	0	0	cutover bog; flying	NS
GP021	VP2	12/09/2022	18:08	Golden Plover	1	156	0	0	0	156	cutover bog; flying/calling, heading north east at high altitude.	CR
GP022	VP5	06/10/2022	08:10	Golden Plover	2	-	-	-	-	-	cutover bog; calling, at least two heard calling at high altitude.	CR
GP023	VP5	06/10/2022	12:26	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP024	VP5	06/10/2022	12:36	Golden Plover	3	143	7	21	127	0	cutover bog; flying/calling, last seen heading west at low altitude.	CR
GP025	VP3	25/10/2022	08:31	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP026	VP2	15/11/2022	15:24	Golden Plover	50	85	0	0	0	85	improved grassland, highly modified/non-native woodland and cutover bog; flying, heading north west.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
GP027	VP6	17/11/2022	17:22	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP028	VP6	13/12/2022	10:57	Golden Plover	1	-	-	-	-	-	improved grassland; calling	CR
GP029	VP3	17/02/2023	08:20	Golden Plover	50	59	0	0	59	0	cutover bog and improved grassland; flying, heading north-west	CR
GP030	VP2	30/03/2023	17:22	Golden Plover	100	360	0	0	120	240	cutover bog and improved grassland; flying, last seen ascending into clouds.	CR
GP031	VP4	13/04/2023	07:48	Golden Plover	45	506	0	64	343	99	cutover bog and improved grassland; flying	CR
GP032	VP6	17/04/2023	07:12	Golden Plover	5	95	27	6	62	0	cutover bog and improved grassland; flying	CR
GP033	VP6	30/09/2023	09:28	Golden Plover	29	185	0	0	0	185	cutover bog and improved grassland; flying/calling	CR
GP034	VP2	12/10/2023	14:50	Golden Plover	25	71	0	0	71	0	highly modified/non-native woodland, improved grassland and cutover bog; flying	CR
GP035	VP2	12/10/2023	18:02	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP036	VP2	12/10/2023	19:31	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP037	VP5	13/10/2023	07:40	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP038	VP5	13/10/2023	09:12	Golden Plover	5	25	25	0	0	0	cutover bog; flying	CR
GP039	VP5	13/10/2023	09:24	Golden Plover	80	452	50	61	160	181	cutover bog; flying/calling, landed on site near vp5.	CR
GP040	VP5	13/10/2023	10:00	Golden Plover	80	232	47	70	115	0	cutover bog and improved grassland; flying	CR
GP041	VP5	13/10/2023	12:29	Golden Plover	40	110	0	10	100	0	cutover bog; flying	CR
GP042	VP6	17/10/2023	13:24	Golden Plover	8	81	30	10	41	0	cutover bog; flying	CR
GP043	VP3	24/11/2023	14:04	Golden Plover	40	56	0	10	46	0	cutover bog; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
GP044	VP6	12/12/2023	15:11	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP045	VP6	12/12/2023	16:53	Golden Plover	2	-	-	-	-	-	cutover bog; calling	CR
GP046	VP6	12/12/2023	17:06	Golden Plover	1	-	-	-	-	-	cutover bog; calling	CR
GP047	VP5	15/12/2023	17:02	Golden Plover	2	-	-	-	-	-	cutover bog; calling	CR
GP048	VP1	24/01/2024	11:25	Golden Plover	47	11	11	0	0	0	bogs and scrub/transitional woodland; flying	JD
GP049	VP6	07/02/2024	14:49	Golden Plover	92	97	0	5	75	17	scrub/transitional woodland, bogs and mixed broadleaved woodland; flying	JD
GP050	VP1	27/03/2024	08:16	Golden Plover	6	130	0	0	80	50	cutover bog and improved grassland; flying	CR
GP051	VP1	27/03/2024	08:22	Golden Plover	10	60	0	0	0	60	cutover bog; flying	CR
GP052	VP6	28/03/2024	08:42	Golden Plover	46	104	14	30	60	0	bogs; flying, calling, dropped onto bog	JD
GP053	VP2	11/09/2024	09:03	Golden Plover	1	-	-	-	-	-	bogs; calling, heard not seen. birds heard calling on at least 5 occasions but couldn't locate them	PDC
GP054	VP5	15/10/2024	15:51	Golden Plover	275	774	250	50	474	0	cutover bog; travelling	CC
GP055	VP5	20/11/2024	09:47	Golden Plover	35	287	0	287	0	0	cutover bog; travelling	CC
GP056	VP5	21/02/2025	18:03	Golden Plover	25	430	230	50	150	0	cutover bog; travelling, wouldn't settle on bog flew off	CC
GP057	VP5	06/03/2025	12:22	Golden Plover	12	17	17	0	0	0	cutover bog; travelling	CC

Table 1-2 Golden Plover Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
GP001	14/04/2022	12:10	-	Golden Plover	5	cutover bog; flying, heading south-east. (suitable nesting habitat; possible breeder)	CR
GP002	14/04/2022	12:24	-	Golden Plover	11	cutover bog and highly modified/non-native woodland; roosting/flying, initially observed walking on the bog before departing the area heading north. (suitable nesting habitat; possible breeder)	CR
GP003	04/04/2023	15:14	-	Golden Plover	80	cutover bog, scrub/transitional woodland and improved grassland; flying (flyover; non-breeding)	CR
GP004	04/04/2023	17:41	-	Golden Plover	12	improved grassland; flying (flyover; non-breeding)	CR
GP005	04/04/2023	17:58	-	Golden Plover	38	improved grassland and depositing/lowland rivers; flying, heading south at high altitude (flyover; non-breeding)	CR

Table 1-3 Golden Plover Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
GP001	15/10/2021	15:41	-	Golden Plover	2	cutover bog; flying/calling, pair of golden plover observed flying low over the bog heading north west. (wintering)	CR
GP002	11/10/2022	15:15	-	Golden Plover	5	cutover bog and highly modified/non-native woodland; walking/flying, five birds initially observed walking on the bog. last seen heading north-east. (wintering)	CR
GP003	11/10/2022	16:17	-	Golden Plover	1	cutover bog; calling, no sighting but heard calling. (wintering)	CR
GP004	13/10/2022	18:08	-	Golden Plover	6	improved grassland; flying (wintering)	CR
GP005	09/10/2023	16:48	-	Golden Plover	18	improved grassland; flying (wintering)	CR
GP006	29/11/2023	15:51	-	Golden Plover	8	cutover bog; roosting (wintering)	CR
GP007	12/03/2024	15:00	-	Golden Plover	3	improved grassland and depositing/lowland rivers; flying, calling (wintering)	CR
GP008	13/03/2024	11:24	-	Golden Plover	3	cutover bog and improved grassland; flying, calling (wintering)	CR
GP009	04/03/2025	11:50	T1	Golden Plover	2	cutover bog; flying, landed, flooded area; just moved from one spot to another (wintering)	ZE

Table 1-4 Golden Plover Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP001	Boora	21/10/2020	10:32	Golden Plover	70	improved agricultural grassland and acid oligotrophic lakes; travelling	JH
GP002	Boora	09/11/2020	09:52	Golden Plover	1200	improved agricultural grassland; foraging/roosting, circling and landing in ga1	JH
GP003	Boora	27/11/2020	13:13	Golden Plover	4000	improved agricultural grassland; foraging, circling and landing in ga1	JH
GP004	Boora	27/11/2020	13:15	Golden Plover	400	improved agricultural grassland; foraging	JH
GP005	Boora	03/12/2020	13:40	Golden Plover	2000	improved agricultural grassland; roosting	JH
GP006	Boora	18/12/2020	12:29	Golden Plover	3500	improved agricultural grassland; foraging/roosting	JH
GP007	Boora	11/01/2021		Golden Plover	6	improved agricultural grassland; roosting	JH
GP008	Boora	25/01/2021		Golden Plover	300	improved agricultural grassland; foraging	JH
GP009	Boora	09/02/2021	13:42	Golden Plover	350	improved agricultural grassland and arable crops; foraging	JH
GP010	Boora	09/02/2021	13:49	Golden Plover	220	improved agricultural grassland; foraging	JH
GP011	Noggusduff	15/03/2021	07:15	Golden Plover	80	lakes and ponds; in flight, circling	PT
GP012	Drinagh	27/10/2021	12:33	Golden Plover	5	lakes and ponds and improved grassland; flying, landed on site.	CR
GP013	Drinagh	27/10/2021	12:50	Golden Plover	52	lakes and ponds, improved grassland and cutover bog; flying, flock of 52 birds observed heading south west.	CR
GP014	Derrybrat	27/10/2021	13:41	Golden Plover	50	lakes and ponds and cutover bog; flying, flock of 50 birds observed flying over the site. last seen heading north.	CR
GP015	Tumduff Wetlands	27/10/2021	15:56	Golden Plover	150	lakes and ponds and improved grassland; flying, large flock of around 150 birds observed flying over the site for at least five minutes.	CR
GP016	Tumduff	10/11/2021	13:06	Golden Plover	200	improved grassland and highly modified/non-native woodland; flying, at least 200 golden plover observed flying over field.	CR
GP017	Tumduff	10/11/2021	13:42	Golden Plover	250	lakes and ponds and improved grassland; flying, large flock of at least 250 golden plover observed flying over site.	CR
GP018	Tumduff	24/11/2021	14:35	Golden Plover	900	improved grassland; roosting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP019	Tumduff	09/12/2021	14:00	Golden Plover	150	improved grassland; flying, flock of 180 birds flying over field to the north of wetlands.	CR
GP020	Tumduff	09/12/2021	14:08	Golden Plover	700	improved grassland; roosting	CR
GP021	Tumduff	09/12/2021	14:31	Golden Plover	900	improved grassland; flying, large flock of at least 900 birds flying over site.	CR
GP022	Tumduff	22/12/2021	14:23	Golden Plover	440	improved grassland; flying	CR
GP023	Tumduff	03/01/2022	13:53	Golden Plover	500	improved grassland; roosting/foraging	CR
GP024	Tumduff	07/01/2022	10:07	Golden Plover	52	improved grassland; foraging	CR
GP025	Tumduff	28/01/2022	14:11	Golden Plover	360	improved grassland; roosting	CR
GP026	Tumduff	28/01/2022	14:28	Golden Plover	600	improved grassland; flying	CR
GP027	Tumduff	09/02/2022	12:11	Golden Plover	410	improved grassland; foraging/roosting	CR
GP028	Tumduff	24/02/2022	11:46	Golden Plover	500	improved grassland and conifer plantation; flying	CR
GP029	Tumduff	24/02/2022	11:53	Golden Plover	39	lakes and ponds; flying	CR
GP030	Tumduff	01/04/2022	11:15	Golden Plover	44	improved agricultural grassland; circling, landed	KS
GP031	Noggusduff	12/04/2022	13:52	Golden Plover	70	turloughs; roosting	CR
GP032	Tumduff	12/04/2022	16:18	Golden Plover	2	lakes and ponds and improved grassland; flying	CR
GP033	Tumduff	12/04/2022	16:35	Golden Plover	150	improved grassland; flying	CR
GP034	Tumduff	12/10/2022	15:26	Golden Plover	250	improved grassland; flying	CR
GP035	Tumduff	27/10/2022	13:24	Golden Plover	500	improved grassland and lakes and ponds; flying	CR
GP036	Tumduff	11/11/2022	15:07	Golden Plover	600	improved grassland and lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP037	Lough Boora	11/11/2022	16:03	Golden Plover	80	lakes and ponds, highly modified/non-native woodland and improved grassland; flying	CR
GP038	Tumduff	23/11/2022	14:44	Golden Plover	1000	improved grassland and lakes and ponds; flying	CR
GP039	Tumduff	07/12/2022	14:53	Golden Plover	900	improved grassland and lakes and ponds; flying	CR
GP040	Tumduff	19/12/2022	13:06	Golden Plover	300	improved grassland and lakes and ponds; flying	CR
GP041	Tumduff	10/01/2023	14:58	Golden Plover	750	improved grassland and lakes and ponds; flying	CR
GP042	Tumduff	26/01/2023	13:23	Golden Plover	80	lakes and ponds and improved grassland; flying	CR
GP043	Tumduff	08/02/2023	14:24	Golden Plover	350	lakes and ponds and improved grassland; flying	CR
GP044	Tumduff	21/02/2023	11:18	Golden Plover	9	improved grassland; flying	CR
GP045	Tumduff	21/03/2023	12:26	Golden Plover	600	improved grassland; foraging/roosting	CR
GP046	Tumduff	12/04/2023	17:03	Golden Plover	500	improved grassland; roosting/foraging	CR
GP047	Tumduff	26/04/2023	15:02	Golden Plover	2	improved grassland; calling, at least two birds heard calling at high altitude	CR
GP048	Tumduff	19/09/2023	17:30	Golden Plover	18	improved grassland; flying	CR
GP049	Tumduff	06/10/2023	15:56	Golden Plover	3	lakes and ponds and improved grassland; flying	CR
GP050	Tumduff	06/10/2023	16:09	Golden Plover	55	lakes and ponds and improved grassland; flying	CR
GP051	Tumduff	09/11/2023	14:38	Golden Plover	350	improved grassland; roosting/foraging	CR
GP052	Tumduff	23/11/2023	14:51	Golden Plover	400	lakes and ponds and improved grassland; flying	CR
GP053	Tumduff	08/12/2023	12:51	Golden Plover	200	improved grassland; foraging	CR
GP054	Tumduff	08/12/2023	13:08	Golden Plover	20	lakes and ponds; flying	CR

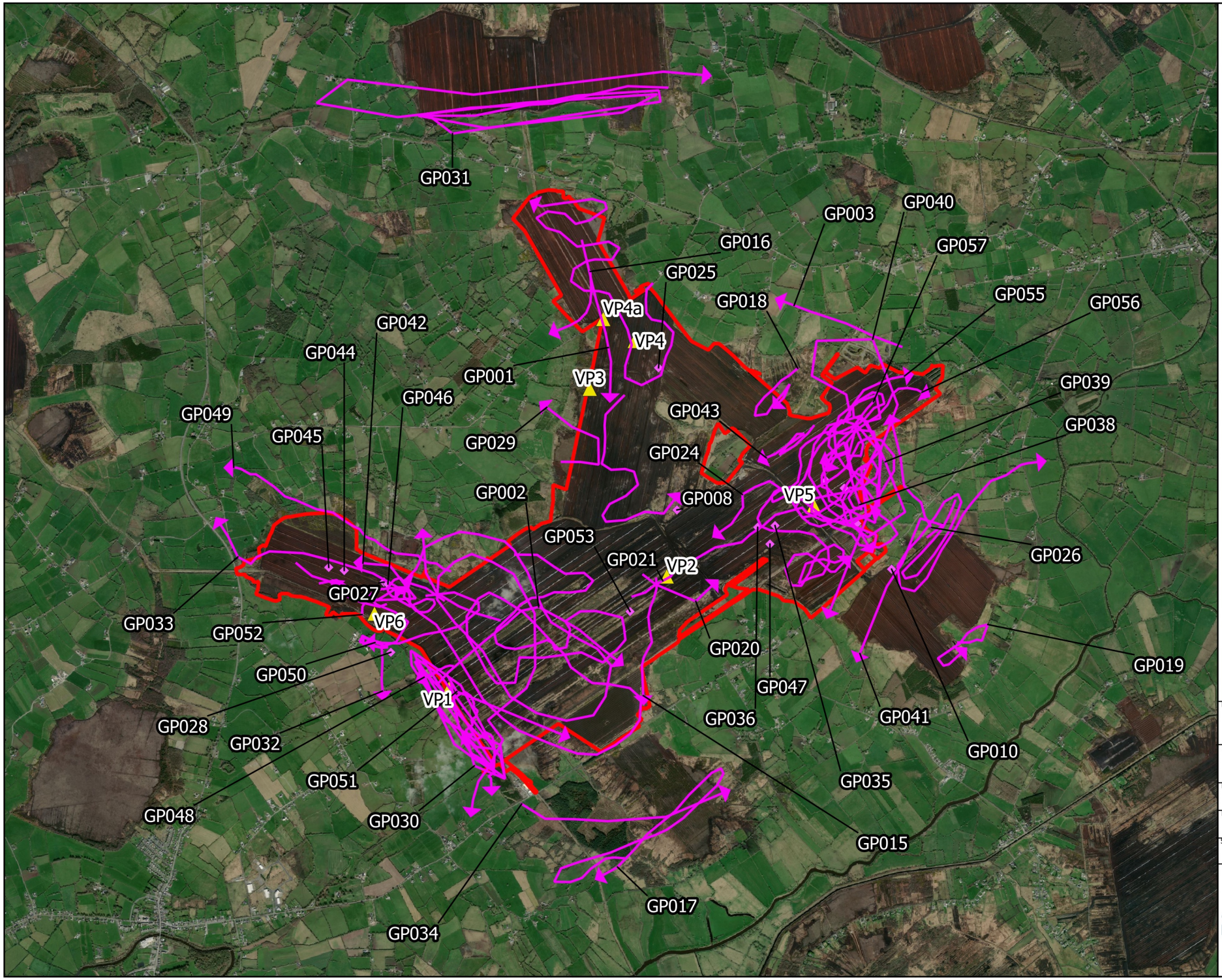
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP055	Tumduff	08/12/2023	13:15	Golden Plover	500	improved grassland; flying	CR
GP056	Noggusduff	21/12/2023	11:50	Golden Plover	2	lakes and ponds; roosting	CR
GP057	Tumduff	21/12/2023	14:51	Golden Plover	150	improved grassland; flying	CR
GP058	Tumduff	21/12/2023	15:12	Golden Plover	500	improved grassland; flying	CR
GP059	Lough Boora	21/12/2023	15:48	Golden Plover	100	improved grassland; flying	CR
GP060	Tumduff	03/01/2024	15:16	Golden Plover	300	improved grassland and lakes and ponds; flying	CR
GP061	Tumduff	03/01/2024	15:29	Golden Plover	500	improved grassland; resting, foraging	CR
GP062	Tumduff	30/01/2024	10:05	Golden Plover	250	improved grassland; foraging, flying	CR
GP063	Tumduff	30/01/2024	10:24	Golden Plover	70	improved grassland; resting	CR
GP064	Tumduff	12/02/2024	16:33	Golden Plover	600	improved grassland and lakes and ponds; flying	CR
GP065	Tumduff	27/02/2024	09:13	Golden Plover	250	improved grassland; flying	CR
GP066	Tumduff	27/02/2024	09:24	Golden Plover	19	scrub/transitional woodland and improved grassland; flying	CR
GP067	Noggusduff	27/02/2024	14:15	Golden Plover	12	lakes and ponds; resting	CR
GP068	Noggusduff	13/03/2024	13:01	Golden Plover	6	lakes and ponds; resting	CR
GP069	Tumduff	13/03/2024	16:33	Golden Plover	37	improved grassland; flying	CR
GP070	Noggusduff	26/03/2024	10:28	Golden Plover	19	lakes and ponds; flying	CR
GP071	Tumduff	26/03/2024	15:31	Golden Plover	40	improved grassland; flying	CR
GP072	Noggusduff	11/10/2024	11:37	Golden Plover	4	bogs; foraging	FOD

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP073	Cloghan Lake	31/10/2024	13:51	Golden Plover	12	improved agricultural grassland and bogs; foraging	FOD
GP074	Cloghan Lake	31/10/2024	15:00	Golden Plover	900	improved agricultural grassland; foraging	FOD
GP075	Lough Boora	14/11/2024	12:18	Golden Plover	600	improved agricultural grassland; foraging	FOD
GP076	Lough Boora	26/11/2024	13:31	Golden Plover	400	improved agricultural grassland; loafing	FOD
GP077	Noggusduff	09/12/2024	12:48	Golden Plover	8	watercourses; foraging	FOD
GP078	Lough Boora	09/12/2024	12:24	Golden Plover	400	improved agricultural grassland; foraging	FOD
GP079	Lough Boora	17/12/2024	13:30	Golden Plover	2500	improved agricultural grassland; circling, flushed into air due to peregrine hunting,	FOD
GP080	South of Lough Boora	29/01/2025	13:06	Golden Plover	126	improved agricultural grassland; foraging, mixed with lapwing	ZE
GP081	Tumduff	29/01/2025	14:09	Golden Plover	1000	improved grassland; flying, with curlew and lapwing; probably disturbed by something	ZE
GP082	Tumduff	06/02/2025	14:32	Golden Plover	800	improved agricultural grassland; circling	ZE
GP083	Tumduff	19/02/2025	13:59	Golden Plover	56	improved agricultural grassland; flying, travelling southwest	ZE
GP084	Tumduff	06/03/2025	13:24	Golden Plover	1000	semi-natural grassland; circling	ZE
GP085	Tumduff	20/03/2025	15:16	Golden Plover	327	improved agricultural grassland; foraging	ZE

Table 1-5 Golden Plover Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP001	Vantage Point Survey; VP4	26/11/2020	13:40	Golden Plover	20	cutover bog; circling, calling and flying on, in height band 3	JH
GP002	Waterbird Distribution and Abundance Survey; Tumduff	12/10/2021	16:56	Golden Plover	80	improved grassland and lakes and ponds; flying, large flock of at least 80 birds observed flying over site.	CR
GP003	Hen Harrier Roost Survey; VP6	13/02/2024	14:47	Golden Plover	15	cutover bog; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
GP004	Vantage Point Survey; VP2	08/03/2024	07:48	Golden Plover	1	cutover bog; calling	CR
GP005	Vantage Point Survey; Togher	10/04/2024	14:38	Golden Plover	60	improved agricultural grassland; commuting	CG



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title

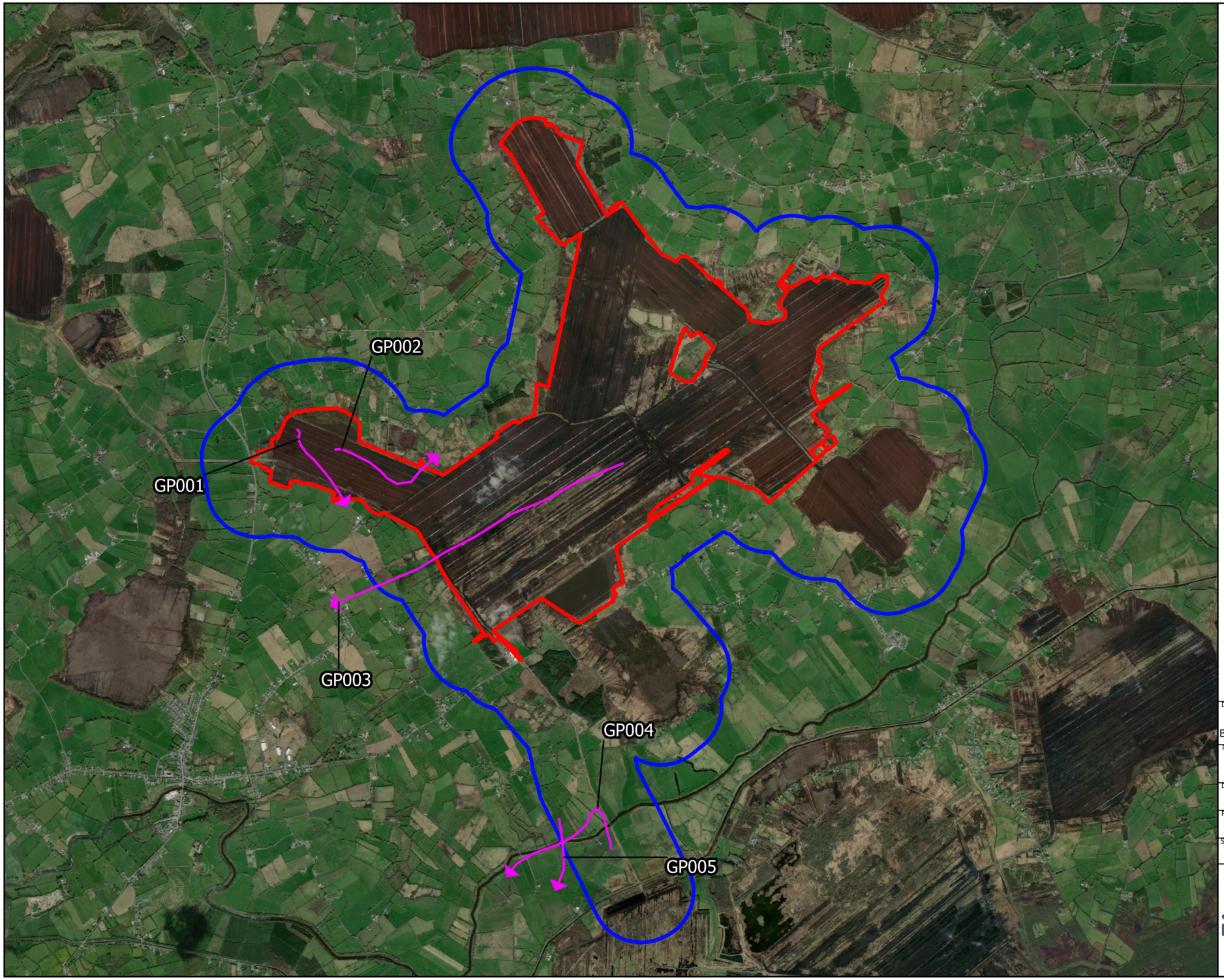
Golden Plover
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	**Drawing No.**
200804-e	Fig. 1.1
Scale	**Date**
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- 500m Survey Radius
- Flight Observation

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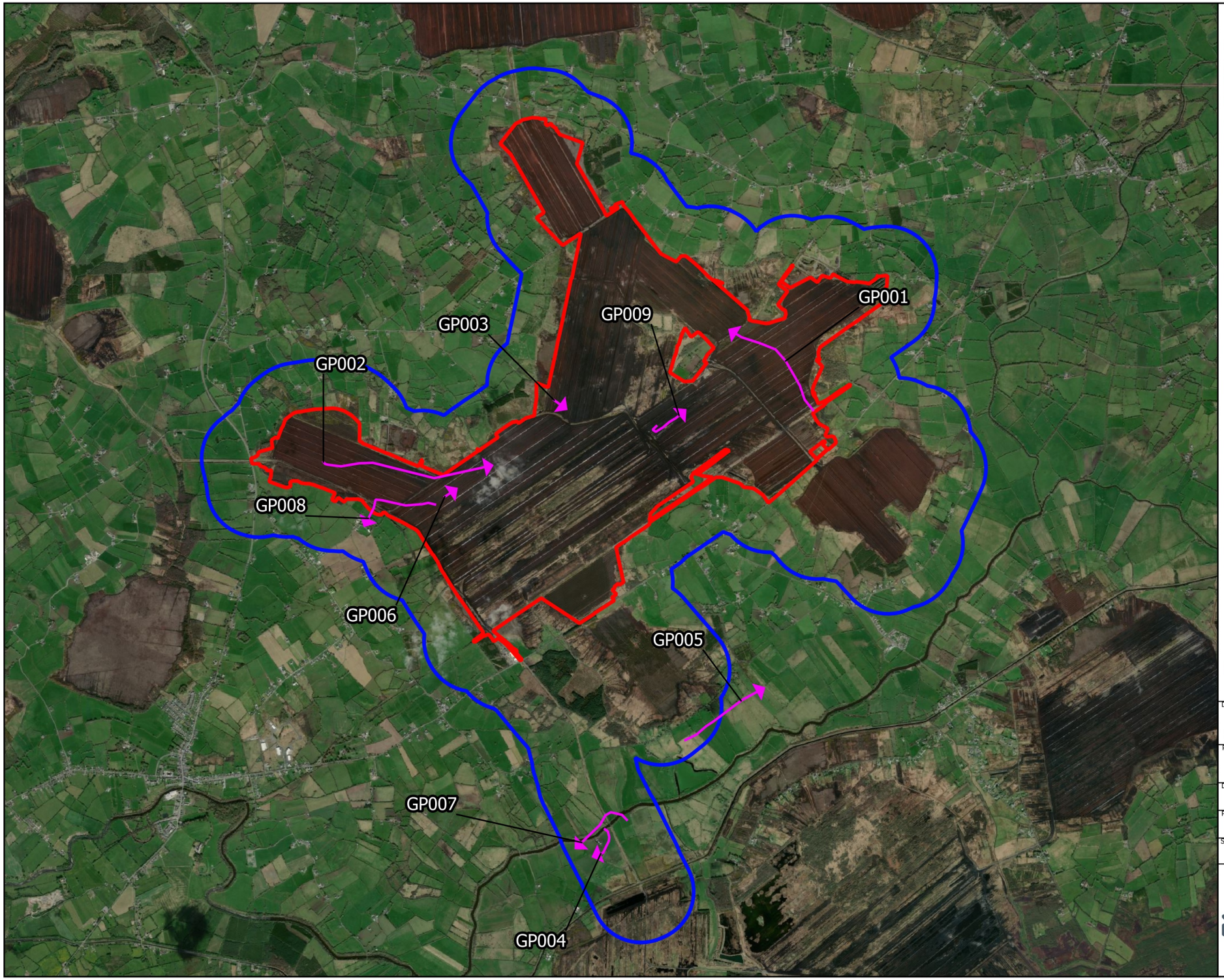
Golden Plover
Breeding Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.2
Scale	Date
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Map Legend

- Application Site Boundary
- 500m Survey Radius
- Flight Observation

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Drawing Title

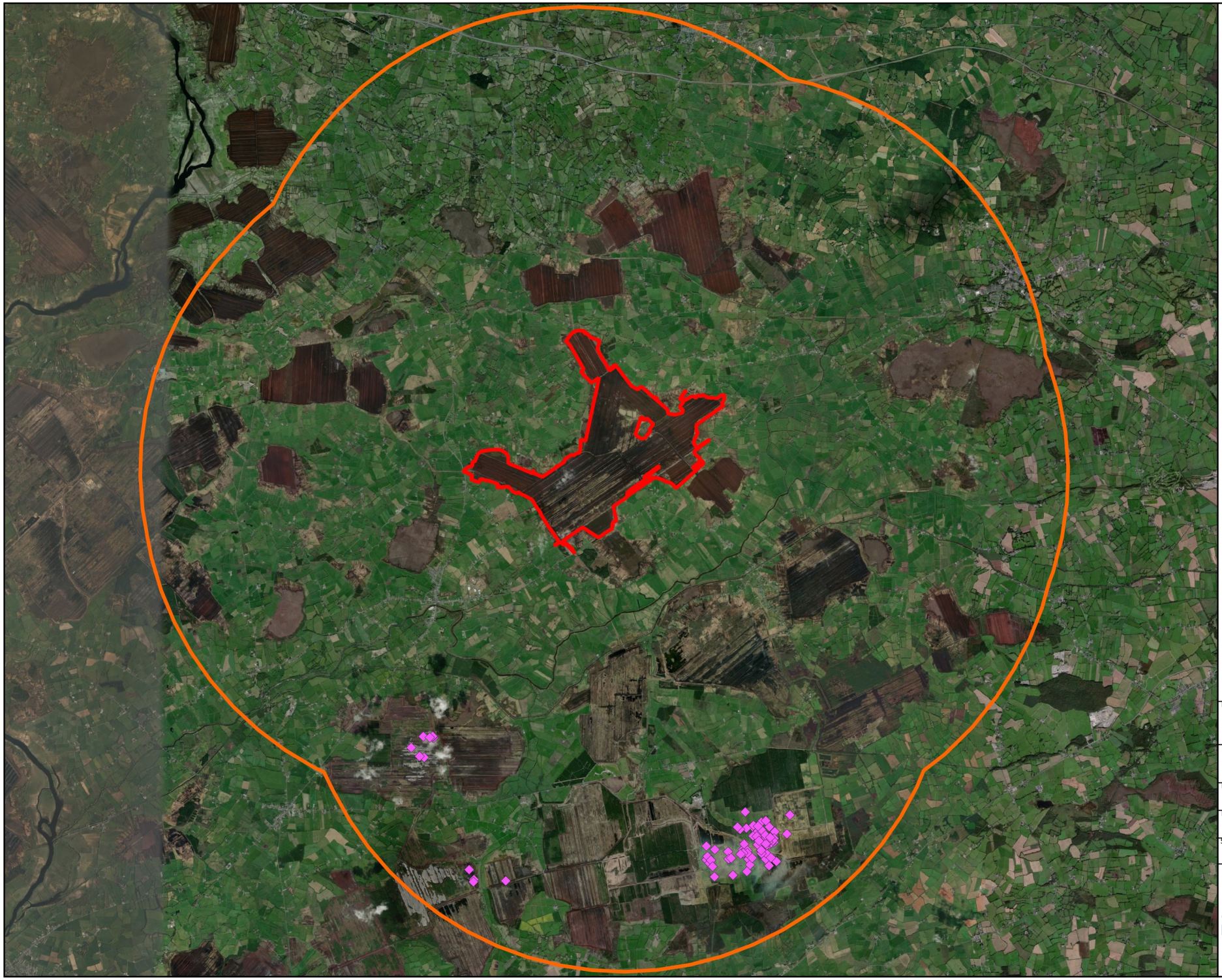
Golden Plover
Winter Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.3
Scale	Date
1:50,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Golden Plover Waterbird Distribution and Abundance Survey Observations
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 1.4
Scale: 1:122,000	Date: 17.07.2025

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Observations of Golden Plover form Waterbird Distribution and Abundance Surveys have been further divided across the following Figures in order to improve readability:

- Figure 1-4a – Golden Plover Waterbird and Distribution Survey Data Winter Season 2020/21
- Figure 1-4b – Golden Plover Waterbird and Distribution Survey Data Winter Season 2022/22
- Figure 1-4c – Golden Plover Waterbird and Distribution Survey Data Winter Season 2022/23
- Figure 1-4d – Golden Plover Waterbird and Distribution Survey Data Winter Season 2023/24
- Figure 1-4e – Golden Plover Waterbird and Distribution Survey Data Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Golden Plover Observations Winter 2020/21
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.4a
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Golden Plover Observations Oct21-Sep22
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.4b
Scale	Date
1:122,000	17.07.2025

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Map Legend

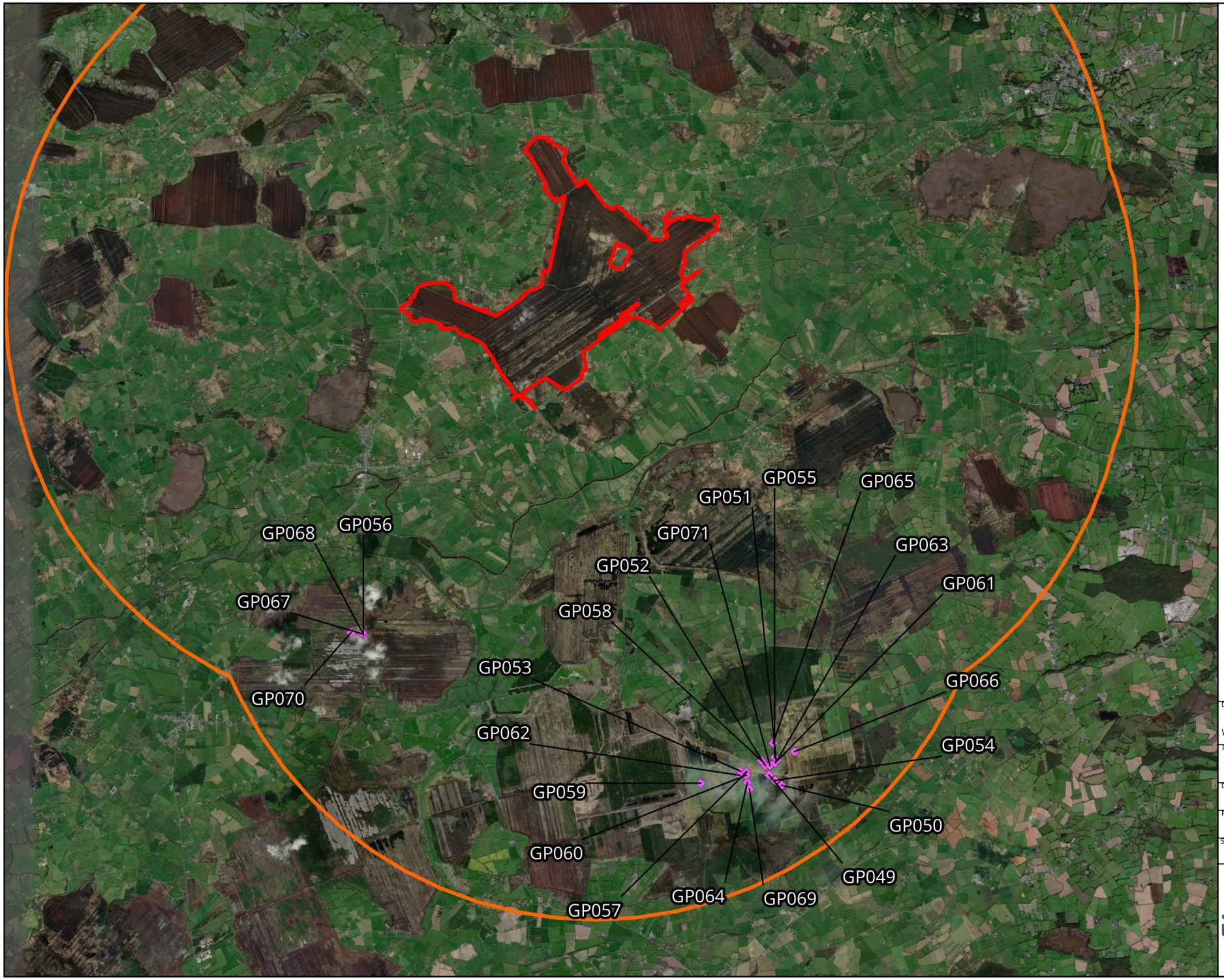
- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Golden Plover Observations Oct22-Sep23 Waterbird Distribution and Abundance Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 1.4c
Scale: 1:100,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

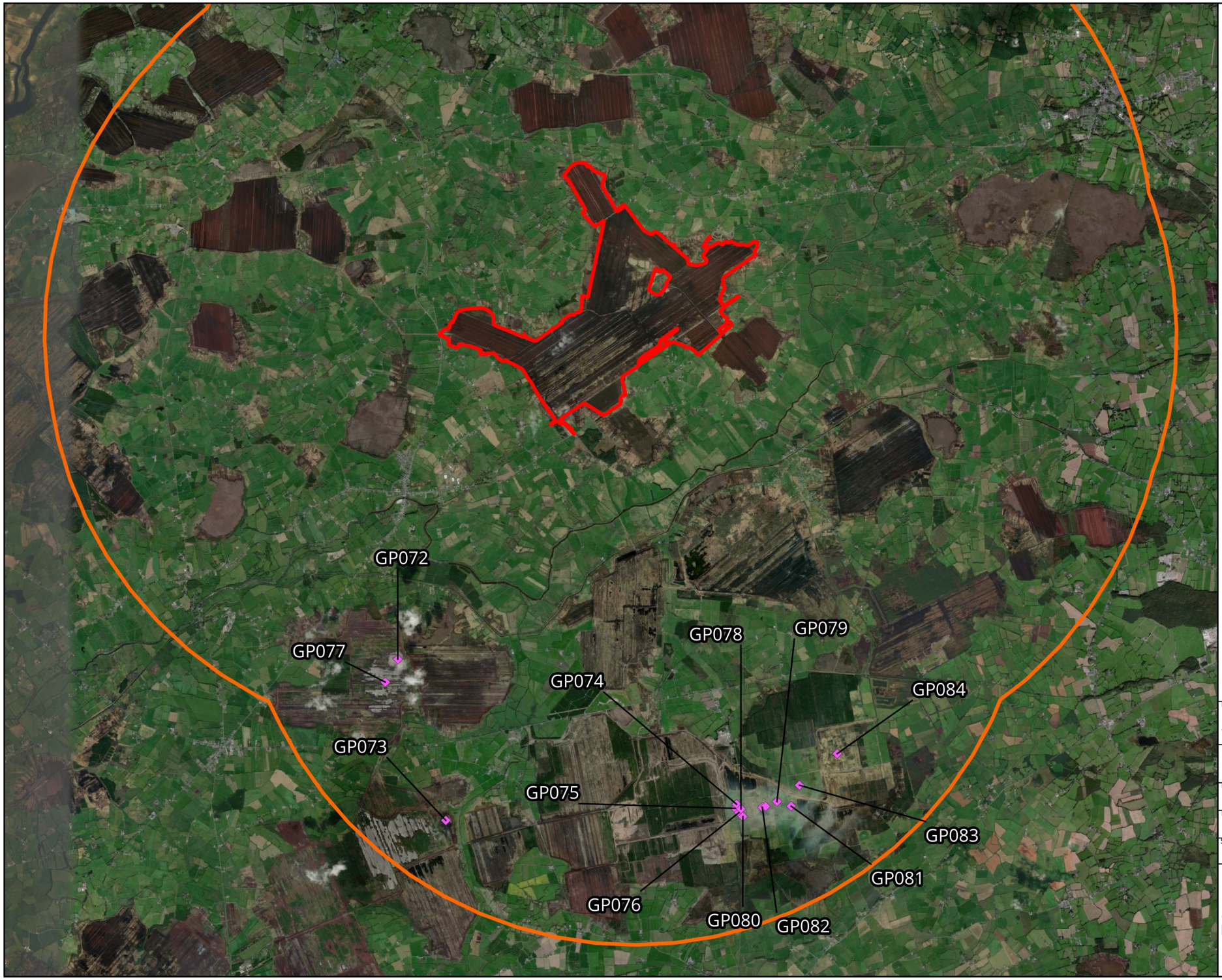
Golden Plover Observations Winter 2023/24
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.4b
Scale	Date
1:100,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

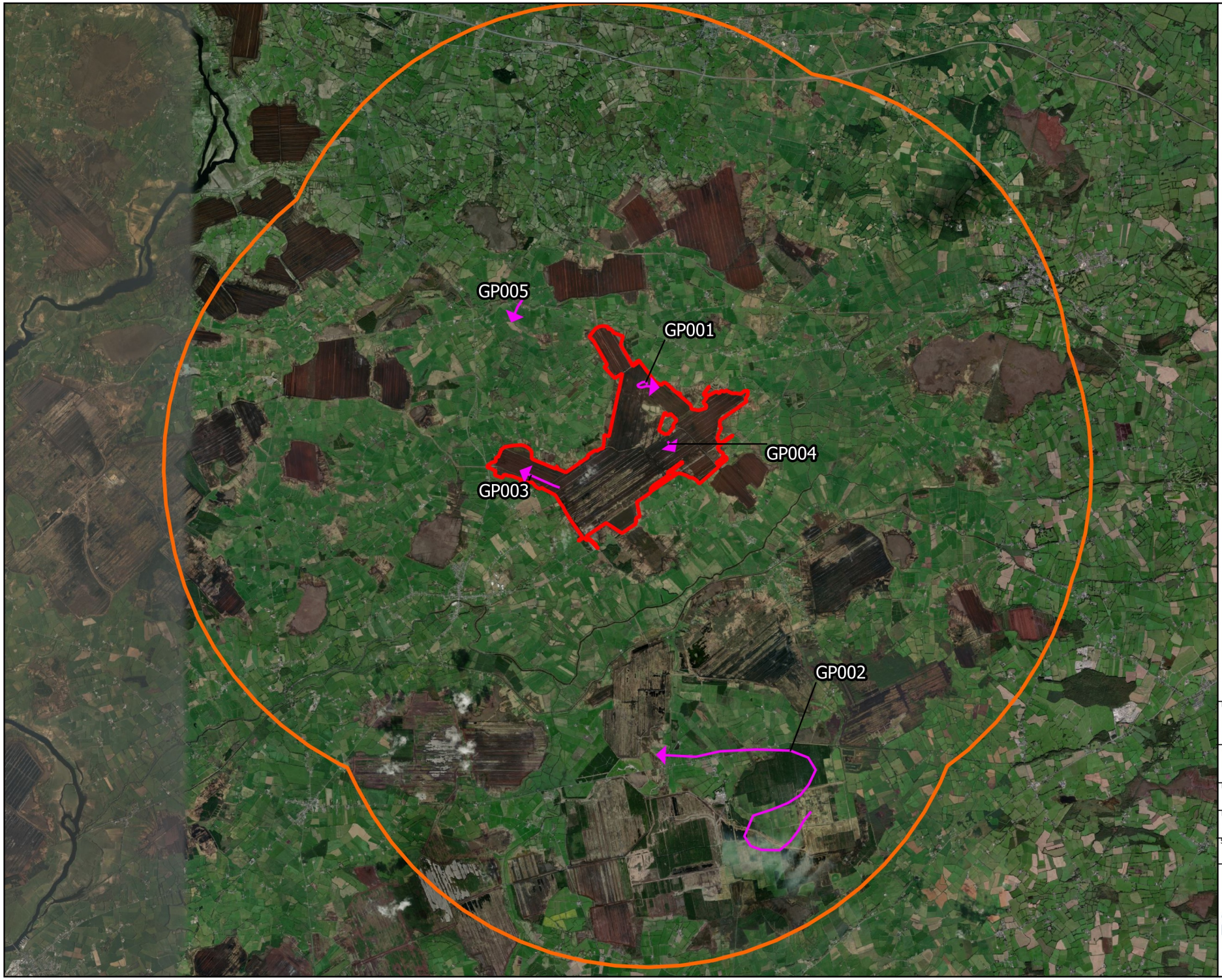
Golden Plover Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.4e
Scale	Date
1:100,000	17.07.2025

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- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Golden Plover
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 1.5
Scale	Date
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2. WHOOPER SWAN

Note: Sensitive records relating to roosting sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 2-1 Whooper Swan Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS001	VP1	05/11/2020	09:02	Whooper Swan	10	87	30	57	0	0	cutover bog and improved agricultural grassland; travelling, rising from cutaway on flying west	JH
WS002	VP1	05/11/2020	09:04	Whooper Swan	3	150	150	0	0	0	cutover bog and improved agricultural grassland; travelling, rising from cutaway and flying south-westerly	JH
WS003	VP1	05/11/2020	09:26	Whooper Swan	7	50	50	0	0	0	cutover bog and improved agricultural grassland; travelling, rising from cutaway and flying west.	JH
WS005	VP3	18/01/2021	11:00	Whooper Swan	3	225	0	0	225	0	cutover bog; travelling	JH
WS026	VP2	10/02/2021	12:09	Whooper Swan	42	28	28	0	0	0	cutover bog; travelling, landing on flooded area of pb4.	JH
WS027	VP2	10/02/2021	14:17	Whooper Swan	6	22	22	0	0	0	cutover bog; travelling, moving location on pb4	JH
WS028	VP2	10/02/2021	14:22	Whooper Swan	10	42	42	0	0	0	cutover bog; travelling, moving location. behind vp 2 location	JH
WS029	VP2	10/02/2021	14:27	Whooper Swan	5	39	39	0	0	0	cutover bog; travelling, moving location behind vp2 location	JH
WS030	VP2	10/02/2021	14:51	Whooper Swan	6	24	24	0	0	0	cutover bog; travelling, moving location on pb4	JH
WS031	VP2	10/02/2021	14:56	Whooper Swan	7	61	61	0	0	0	cutover bog; travelling, moving location on pb4	JH
WS032	VP3	15/02/2021	17:43	Whooper Swan	6	186	0	87	99	0	cutover bog and conifer plantation; travelling, travelling southerly in direction	JH
WS033	VP6	22/02/2021	12:34	Whooper Swan	3	44	44	0	0	0	cutover bog; travelling, rising from cutaway and landing back on cutaway.	JH
WS034	VP6	22/02/2021	14:21	Whooper Swan	8	24	2	0	0	0	cutover bog; travelling, rising from cutaway and landing back on cutaway	JH
WS035	VP5	11/03/2021	11:17	Whooper Swan	3	45	10	35	0	0	cutover bog; travelling, possibly landing on cutaway	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS036	VP5	11/03/2021	11:43	Whooper Swan	8	58	58	0	0	0	cutover bog; travelling, possibly landing on cutaway	JH
WS037	VP1	30/03/2021	19:44	Whooper Swan	7	180	0	0	180	0	cutover bog; direct flight	PT
WS038	VP3	18/10/2021	13:17	Whooper Swan	2	110	0	0	110	0	cutover bog and improved grassland; flying, pair observed flying over the site. last seen heading east.	CR
WS039	VP5	20/10/2021	09:56	Whooper Swan	2	66	66	0	0	0	cutover bog and improved grassland; flying, pair observed flying at low altitude heading south west.	CR
WS040	VP5	20/10/2021	10:22	Whooper Swan	5	110	0	10	100	0	cutover bog; flying, flock of five birds observed. last seen descending to a lower altitude and heading south west.	CR
WS041	VP2	02/11/2021	12:18	Whooper Swan	20	97	97	0	0	0	cutover bog; flying/calling, flock of 20 birds observed heading south.	CR
WS042	VP5	05/11/2021	12:55	Whooper Swan	5	230	0	0	60	210	cutover bog and improved grassland; flying/calling, small flock of five birds observed. last seen heading south beyond the 500 m buffer	CR
WS043	VP5	05/11/2021	16:47	Whooper Swan	3	112	112	0	0	0	cutover bog and improved grassland; flying/calling, three swans observed heading south west before landing in small body of water near vp2.	CR
WS044	VP5	05/11/2021	16:54	Whooper Swan	20	160	160	0	0	0	cutover bog and improved grassland; flying/calling, large flock of 20 swans observed heading south west before landing in the same body of water where the 3 swans sighted at 16:47 landed.	CR
WS046	VP5	05/11/2021	17:06	Whooper Swan	23	250	250	0	0	0	cutover bog and improved grassland; flying/calling, flock of 23 swans observed departing the area, possibly spooked by distant gunshot. last seen heading north west.	CR
WS047	VP5	05/11/2021	17:39	Whooper Swan	2	20	20	0	0	0	cutover bog; flying/calling, two swans observed heading west. difficult to keep track due to light conditions.	CR
WS048	VP3	06/12/2021	09:23	Whooper Swan	1	181	0	0	121	60	cutover bog and improved grassland; flying, last seen heading east before disappearing into the clouds.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS051	VP2	22/02/2022	07:25	Whooper Swan	6	40	0	0	40	0	cutover bog; flying	NS
WS052	VP2	15/03/2022	17:09	Whooper Swan	4	40	40	0	0	0	cutover bog; flying, observed landing in small body to the north.	CR
WS053	VP2	21/04/2022	06:37	Whooper Swan	3	178	0	60	118	0	cutover bog; flying	NS
WS055	VP2	20/10/2022	08:09	Whooper Swan	13	40	40	0	0	0	cutover bog; flying, landed in small water body north of vp2. remained in water body up to end of survey.	CR
WS056	VP2	20/10/2022	09:04	Whooper Swan	2	56	56	0	0	0	cutover bog; flying, landed in same water body where 17 whooper swans were already present.	CR
WS057	VP6	28/10/2022	08:23	Whooper Swan	14	181	10	171	0	0	cutover bog; flying, heading north-east.	CR
WS058	VP5	09/11/2022	15:13	Whooper Swan	14	70	70	0	0	0	cutover bog; flying, seemed to approach from the south east. landed at water body near vp2 where they remained after the end of survey.	CR
WS059	VP5	09/11/2022	15:16	Whooper Swan	5	42	42	0	0	0	cutover bog; flying, approached from the west, landed in water body near vp2.	CR
WS062	VP5	02/12/2022	09:15	Whooper Swan	19	231	80	41	110	0	cutover bog; flying, left waterbody where 10 swans were initially seen. last seen heading south.	CR
WS063	VP5	02/12/2022	09:52	Whooper Swan	3	192	0	21	171	0	cutover bog; flying, heading south-west.	CR
WS064	VP1	14/12/2022	09:55	Whooper Swan	2	93	0	0	93	0	scrub and cutover bog; flying, heading west.	CR
WS067	VP2	11/01/2023	08:31	Whooper Swan	6	66	66	0	0	0	cutover bog; flying, headed south-west before descending beyond ridge.	CR
WS068	VP2	11/01/2023	09:21	Whooper Swan	6	128	45	83	0	0	cutover bog; flying, same six swans returned to large roosting flock.	CR
WS072	VP5	12/01/2023	11:41	Whooper Swan	48	-	-	-	-	-	cutover bog; in the water/roosting, includes three swans that landed on-site at 17:13 pm. remained on-site up to end of survey.	CR
WS073	VP5	12/01/2023	17:13	Whooper Swan	3	92	92	0	0	0	cutover bog; flying, approached from the north east. landed in waterbody where 45 whooper swans were already present.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS078	VP2	24/01/2023	12:42	Whooper Swan	4	35	35	0	0	0	cutover bog; flying, initially left with 11 other swans before quickly returning to waterbody.	CR
WS079	VP2	24/01/2023	12:58	Whooper Swan	1	140	99	41	0	0	cutover bog; flying, initially headed south west before returning to waterbody.	CR
WS080	VP2	24/01/2023	13:49	Whooper Swan	5	240	34	22	184	0	cutover bog; flying, left waterbody heading east.	CR
WS088	VP2	24/01/2023	17:33	Whooper Swan	4	63	63	0	0	0	cutover bog and scrub; flying, headed south west.	CR
WS089	VP2	24/01/2023	17:43	Whooper Swan	2	37	37	0	0	0	cutover bog and scrub; flying, headed south west.	CR
WS091	VP2	29/01/2023	12:16	Whooper Swan	4	190	35	15	140	0	cutover bog and improved grassland; flying, left waterbody initially heading north east before turning south.	CR
WS092	VP2	29/01/2023	12:42	Whooper Swan	11	382	63	79	240	0	cutover bog; flying, left the waterbody and flew around the northern part of the site before returning to waterbody.	CR
WS098	VP1	27/02/2023	08:16	Whooper Swan	3	120	0	0	120	0	cutover bog and scrub; flying, heading south-west	CR
WS100	VP2	12/10/2023	14:35	Whooper Swan	17	111	75	26	10	0	cutover bog and improved grassland; flying, heading south.	CR
WS101	VP2	12/10/2023	15:37	Whooper Swan	4	67	2	17	48	0	cutover bog and highly modified/non-native woodland; flying, last seen heading north east before diving.	CR
WS102	VP2	12/10/2023	18:07	Whooper Swan	2	-	-	-	-	-	improved grassland; calling, at least two birds heard calling. unable to be certain if on site due to poor visibility.	CR
WS103	VP2	12/10/2023	18:38	Whooper Swan	2	-	-	-	-	-	improved grassland and cutover bog; calling, at least two swans heard calling. again, unable to determine if on-site.	CR
WS107	VP5	13/10/2023	08:23	Whooper Swan	6	64	0	44	20	0	improved grassland and cutover bog; flying, heading south.	CR
WS108	VP5	13/10/2023	08:38	Whooper Swan	13	257	25	43	189	0	cutover bog, highly modified/non-native woodland and improved grassland; flying	CR
WS109	VP5	13/10/2023	08:45	Whooper Swan	13	90	0	0	90	0	improved grassland; flying, same flock observed at 08:39. last seen heading north.	CR
WS110	VP5	13/10/2023	08:57	Whooper Swan	18	105	105	0	0	0	cutover bog; flying, included swans that landed on site. last seen heading east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS111	VP5	13/10/2023	08:58	Whooper Swan	5	319	120	49	150	0	cutover bog, improved grassland and highly modified/non-native woodland; flying, broke off from flock observed at 08:57. last seen heading north.	CR
WS112	VP5	13/10/2023	09:29	Whooper Swan	2	-	-	-	-	-	cutover bog; calling, at least two swans heard calling.	CR
WS113	VP5	13/10/2023	09:48	Whooper Swan	1	120	0	0	120	0	cutover bog; flying	CR
WS114	VP5	13/10/2023	10:07	Whooper Swan	5	61	20	41	0	0	cutover bog; flying	CR
WS115	VP5	13/10/2023	11:08	Whooper Swan	14	306	145	63	98	0	cutover bog and improved grassland; flying, heading south west.	CR
WS116	VP3	16/10/2023	18:09	Whooper Swan	7	90	90	0	0	0	cutover bog; flying, heading north east.	CR
WS117	VP2	16/11/2023	08:38	Whooper Swan	2	313	58	29	226		cutover bog, improved grassland and highly modified/non-native woodland; flying, flushed from waterbody on-site after disturbance from heavy machinery. last seen heading north beyond site boundary.	CR
WS118	VP3	24/11/2023	09:30	Whooper Swan	2	150	150	0	0	0	cutover bog; flying	CR
WS119	VP3	24/11/2023	12:20	Whooper Swan	12	370	0	0	130	240	cutover bog, improved grassland and highly modified/non-native woodland; flying	CR
WS120	VP6	12/12/2023	13:17	Whooper Swan	3	204	80	60	63	0	cutover bog and improved grassland; flying	CR
WS121	VP3	13/12/2023	11:52	Whooper Swan	4	88	8	9	71	0	cutover bog and improved grassland; flying	CR
WS122	VP4	18/12/2023	16:47	Whooper Swan	2	-	-	-	-	-	cutover bog; calling/flying, no visual, calling above clouds.	CR
WS123	VP2	20/12/2023	11:42	Whooper Swan	2	43	0	0	43	0	bogs and improved agricultural grassland; flying	JD
WS124	VP1	24/01/2024	09:15	Whooper Swan	6	112	0	0	112	0	bogs and scrub/transitional woodland; travelling	JD
WS125	VP4	26/01/2024	09:12	Whooper Swan	6	97	97	0	0	0	bogs and scrub/transitional woodland; travelling	JD
WS126	VP4	26/01/2024	09:12	Whooper Swan	2	143	123	20	0	0	bogs and scrub/transitional woodland; travelling	JD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WS127	VP4	26/01/2024	10:12	Whooper Swan	3	86	50	36	0	0	bogs, conifer plantation and scrub/transitional woodland; travelling	JD
WS128	VP4	28/02/2024	12:23	Whooper Swan	2	187	0	37	150	0	bogs and scrub/transitional woodland; travelling	JD
WS129	VP1	27/03/2024	07:30	Whooper Swan	7	197	0	0	147	50	cutover bog and improved grassland; flying	CR
WS130	VP1	27/03/2024	10:05	Whooper Swan	18	169	0	59	110	0	cutover bog and improved grassland; flying	CR
WS131	VP6	31/10/2024	14:18	Whooper Swan	8	157	120	37	0	0	cutover bog; travelling, seemed to be on downward trajectory, may have landed on bog but trees obscured view	CC
WS132	VP5	21/11/2024	09:33	Whooper Swan	2	97	0	97	0	0	cutover bog; travelling	CC
WS133	VP2	11/11/2024	11:01	Whooper Swan	7	32	0	32	0	0	bogs; travelling	FOD
WS134	VP2	28/11/2024	15:00	Whooper Swan	3	187	20	120	40	0	bogs; travelling	FOD
WS135	VP4	23/01/2025	11:25	Whooper Swan	1	72	0	72	0	0	conifer plantation and cutover bog; travelling, calling	CC
WS136	VP1	14/01/2025	08:57	Whooper Swan	3	63	63	0	0	0	cutover bog, improved grassland and linear woodland/scrub; flying	ZE
WS140	VP2	15/01/2025	10:37	Whooper Swan	2	72	72	0	0	0	cutover bog and highly modified/non-native woodland; flying, calling	ZE
WS141	VP2	15/01/2025	10:39	Whooper Swan	5	70	70	0	0	0	cutover bog and highly modified/non-native woodland; flying	ZE
WS142	VP5	21/02/2025	14:20	Whooper Swan	2	63	0	63	0	0	cutover bog; travelling	CC

Table 2-2 Whooper Swan Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
WS009	11/10/2022	17:17	-	Whooper Swan	3	cutover bog and scrub; flying, three juvenile birds last seen heading south. (wintering)	CR
WS012	16/01/2023	13:35	-	Whooper Swan	14	cutover bog; flying, approached from south east. landed in waterbody where 42 swans were present. (wintering)	CR
WS016	30/01/2023	15:43	-	Whooper Swan	6	cutover bog; flying, most likely same swans observed at 14:50 pm. observed heading south west. (wintering)	CR
WS018	13/11/2023	14:50	-	Whooper Swan	2	cutover bog; flying (wintering)	CR
WS019	29/11/2023	14:26	-	Whooper Swan	5	improved grassland and cutover bog; flying (wintering)	CR
WS020	26/01/2024	12:29	-	Whooper Swan	4	improved grassland and depositing/lowland rivers; flying (wintering)	CR
WS021	21/03/2024	14:44	-	Whooper Swan	1	cutover bog; calling (wintering)	CR
WS022	23/10/2024	13:43	T1	Whooper Swan	3	cutover bog; travelling, calling (wintering)	CC

Table 2-3 Whooper Swan Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS001	Boora	28/10/2020	11:09	Whooper Swan	4	improved agricultural grassland; roosting/foraging, 2 adults and 2 juveniles	JH
WS002	Noggusduff	28/10/2020	13:10	Whooper Swan	9	cutover bog and acid oligotrophic lakes; roosting	JH
WS003	Noggusduff	09/11/2020	11:32	Whooper Swan	4	cutover bog and acid oligotrophic lakes; roosting	JH
WS004	Derrybrat	09/11/2020	14:45	Whooper Swan	24	cutover bog; roosting/foraging, 21 adults 3 juveniles	JH
WS005	Derrybrat/Lumcloon	27/11/2020	11:12	Whooper Swan	120	cutover bog and acid oligotrophic lakes; roosting, on flooded area	JH
WS006	Tarraun	27/11/2020	12:24	Whooper Swan	8	acid oligotrophic lakes; roosting, turraun wetland	JH
WS007	Noggusduff	27/11/2020	14:10	Whooper Swan	9	acid oligotrophic lakes; roosting	JH
WS008	Noggusduff	27/11/2020	14:33	Whooper Swan	1	acid oligotrophic lakes and cutover bog; roosting	JH

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS009	Derrybrat	03/12/2020	10:29	Whooper Swan	79	acid oligotrophic lakes and cutover bog; roosting, on flooded area	JH
WS010	Noggusduff	03/12/2020	11:36	Whooper Swan	5	acid oligotrophic lakes and cutover bog; roosting	JH
WS011	Noggusduff	03/12/2020	11:58	Whooper Swan	8	acid oligotrophic lakes and cutover bog; roosting	JH
WS012	Tarraun	03/12/2020	12:26	Whooper Swan	21	acid oligotrophic lakes; roosting	JH
WS013	Derrybrat	18/12/2020	10:06	Whooper Swan	108	acid oligotrophic lakes and cutover bog; roosting	JH
WS014	Tumduff	07/01/2021	09:33	Whooper Swan	2	lakes and ponds; in the water, in the water	CR
WS015	Derrybrat	25/01/2021		Whooper Swan	6	cutover bog and acid oligotrophic lakes; foraging	JH
WS016	Noggusduff	09/02/2021	12:16	Whooper Swan	9	cutover bog and acid oligotrophic lakes; roosting	JH
WS017	Noggusduff	09/02/2021	12:35	Whooper Swan	2	acid oligotrophic lakes and cutover bog; roosting	JH
WS018	Boora	09/02/2021	13:55	Whooper Swan	4	improved agricultural grassland; foraging, two adults and two juveniles	JH
WS019	Drinagh	25/02/2021	10:04	Whooper Swan	2	acid oligotrophic lakes and cutover bog; roosting	JH
WS020	Noggusduff	25/02/2021	11:24	Whooper Swan	6	acid oligotrophic lakes and cutover bog; roosting	JH
WS021	Derrybrat	15/03/2021	08:25	Whooper Swan	3	cutover bog; feeding, on bog adjacent to wetland	PT
WS022	Tumduff Mor	30/03/2021	13:10	Whooper Swan	6	grassland and marsh; feeding, roosting, on pasture at n 194191	PT
WS023	Tumduff Wetlands	27/10/2021	16:00	Whooper Swan	3	lakes and ponds; in the water, two adults and one juvenile	CR
WS024	Tarraun	10/11/2021	09:15	Whooper Swan	2	lakes and ponds; in the water	CR
WS025	Tumduff	10/11/2021	13:24	Whooper Swan	2	lakes and ponds; in the water	CR
WS026	Drinagh	10/11/2021	15:23	Whooper Swan	15	lakes and ponds and cutover bog; in the water/calling/flying, at least 15 swans observed. possibly more swans in the area but difficult to get sufficient views. eight observed leaving the site heading south west.	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS027	Noggusduff	10/11/2021	16:36	Whooper Swan	2	lakes and ponds; in the water/calling	CR
WS028	Drinagh	24/11/2021	11:50	Whooper Swan	7	lakes and ponds; in the water, seven adults	CR
WS029	Noggusduff	24/11/2021	12:14	Whooper Swan	9	lakes and ponds; in the water	CR
WS030	Tumduff	24/11/2021	14:32	Whooper Swan	16	lakes and ponds; in the water	CR
WS031	Turraun Nature Park	24/11/2021	16:45	Whooper Swan	42	lakes and ponds; flying/roosting, flock of 42 birds observed landing on the eastern edge of wetland.	CR
WS032	Noggusduff	09/12/2021	09:42	Whooper Swan	5	turloughs; in the water, five adults	CR
WS033	Noggusduff	09/12/2021	10:12	Whooper Swan	9	turloughs; roosting	CR
WS034	Drinagh	09/12/2021	12:14	Whooper Swan	2	lakes and ponds; calling, at least two swans heard calling to the west.	CR
WS035	Tumduff	09/12/2021	14:15	Whooper Swan	19	lakes and ponds; in the water	CR
WS036	Turraun Nature Park	09/12/2021	16:09	Whooper Swan	2	lakes and ponds; flying, heading west.	CR
WS037	Noggusduff	22/12/2021	10:14	Whooper Swan	2	lakes and ponds; in the water, two adults	CR
WS038	Noggusduff	22/12/2021	10:40	Whooper Swan	2	lakes and ponds and cutover bog; flying, two adults heading east.	CR
WS039	Noggusduff	22/12/2021	10:46	Whooper Swan	3	lakes and ponds; in the water, three adults.	CR
WS040	Drinagh	22/12/2021	12:15	Whooper Swan	1	lakes and ponds; in the water, one adult.	CR
WS041	Tumduff	22/12/2021	14:15	Whooper Swan	16	lakes and ponds; in the water	CR
WS042	Turraun Nature Park	22/12/2021	16:07	Whooper Swan	11	lakes and ponds; in the water	CR
WS043	Turraun Nature Park	22/12/2021	16:11	Whooper Swan	5	lakes and ponds; flying, left the area heading north.	CR
WS044	Turraun Nature Park	22/12/2021	16:20	Whooper Swan	1	lakes and ponds; in the water	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS045	Turraun Nature Park	22/12/2021	16:24	Whooper Swan	6	lakes and ponds; flying, approached lake from the west.	CR
WS046	Tumduff	07/01/2022	09:37	Whooper Swan	5	lakes and ponds; in the water	CR
WS047	Tumduff	07/01/2022	09:45	Whooper Swan	10	lakes and ponds; in the water	CR
WS048	Lough Boora	07/01/2022	11:04	Whooper Swan	3	improved grassland and lakes and ponds; flying, heading west.	CR
WS049	Noggusduff	28/01/2022	10:43	Whooper Swan	3	lakes and ponds; flying, heading west	CR
WS050	Drinagh	28/01/2022	12:09	Whooper Swan	2	lakes and ponds; in the water	CR
WS051	Tumduff	01/02/2022	14:25	Whooper Swan	36	lakes and ponds; in the water	CR
WS052	Tumduff	09/02/2022	12:17	Whooper Swan	25	improved grassland; foraging/roosting	CR
WS053	Noggusduff	09/02/2022	16:32	Whooper Swan	5	lakes and ponds; in the water	CR
WS054	Turraun Nature Park	24/02/2022	10:12	Whooper Swan	1	lakes and ponds; in the water	CR
WS055	Tumduff	24/02/2022	11:43	Whooper Swan	21	improved grassland; foraging/roosting	CR
WS056	Noggusduff	24/02/2022	15:49	Whooper Swan	12	lakes and ponds; in the water	CR
WS057	Tumduff	16/03/2022	13:45	Whooper Swan	21	improved grassland; foraging	CR
WS058	Tumduff	01/04/2022	11:15	Whooper Swan	1	improved agricultural grassland; foraging	KS
WS059	Tumduff	12/04/2022	16:13	Whooper Swan	1	improved grassland; roosting	CR
WS060	Turraun Nature Park	26/04/2022	14:24	Whooper Swan	2	lakes and ponds; in the water	CR
WS061	Noggusduff	07/12/2022	11:50	Whooper Swan	12	turloughs; in the water	CR
WS062	Tumduff	07/12/2022	15:05	Whooper Swan	17	lakes and ponds; in the water	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS063	Turraun Nature Park	07/12/2022	16:24	Whooper Swan	20	lakes and ponds; in the water	CR
WS064	Turraun Nature Park	07/12/2022	16:40	Whooper Swan	4	lakes and ponds; flying/in the water, joined the 20 swans already residing in waterbody.	CR
WS065	Turraun Nature Park	19/12/2022	12:20	Whooper Swan	28	lakes and ponds; in the water	CR
WS066	Noggusduff	19/12/2022	16:11	Whooper Swan	13	lakes and ponds; roosting	CR
WS067	Noggusduff	10/01/2023	11:54	Whooper Swan	16	lakes and ponds; roosting	CR
WS068	Noggusduff	10/01/2023	12:00	Whooper Swan	4	lakes and ponds; in the water	CR
WS069	Tumduff	10/01/2023	14:54	Whooper Swan	2	lakes and ponds; in the water	CR
WS070	Turraun Nature Park	26/01/2023	12:33	Whooper Swan	13	lakes and ponds; in the water	CR
WS071	Turraun Nature Park	26/01/2023	12:40	Whooper Swan	26	lakes and ponds; in the water	CR
WS072	Noggusduff	26/01/2023	16:41	Whooper Swan	12	lakes and ponds; flying, left the area heading west.	CR
WS073	Noggusduff	26/01/2023	16:45	Whooper Swan	8	lakes and ponds; in the water	CR
WS074	Turraun Nature Park	08/02/2023	12:58	Whooper Swan	19	lakes and ponds; in the water	CR
WS075	Tumduff	08/02/2023	14:09	Whooper Swan	9	lakes and ponds; in the water	CR
WS076	Turraun Nature Park	21/02/2023	08:31	Whooper Swan	7	lakes and ponds; in the water	CR
WS077	Turraun Nature Park	21/02/2023	08:41	Whooper Swan	11	lakes and ponds; in the water, four birds left area heading west.	CR
WS078	Tumduff	21/02/2023	10:25	Whooper Swan	9	lakes and ponds; in the water	CR
WS079	Derrybrat	21/02/2023	12:10	Whooper Swan	69	lakes and ponds; in the water	CR
WS080	Noggusduff	21/02/2023	14:48	Whooper Swan	10	lakes and ponds; in the water	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS081	Noggusduff	07/03/2023	10:50	Whooper Swan	17	lakes and ponds; in the water	CR
WS082	Noggusduff	07/03/2023	11:12	Whooper Swan	8	lakes and ponds; in the water	CR
WS083	Derrybrat	07/03/2023	14:11	Whooper Swan	41	lakes and ponds; in the water	CR
WS084	Turraun Nature Park	07/03/2023	15:10	Whooper Swan	10	lakes and ponds; in the water	CR
WS085	Tumduff	07/03/2023	16:25	Whooper Swan	15	improved grassland; foraging	CR
WS086	Tumduff	21/03/2023	12:01	Whooper Swan	14	improved grassland; foraging	CR
WS087	Tumduff	21/03/2023	12:15	Whooper Swan	2	lakes and ponds; in the water	CR
WS088	Derrybrat	21/03/2023	13:40	Whooper Swan	7	lakes and ponds; in the water	CR
WS089	Noggusduff	21/03/2023	15:37	Whooper Swan	8	lakes and ponds; roosting	CR
WS090	Tumduff	23/11/2023	14:46	Whooper Swan	4	lakes and ponds; in the water	CR
WS091	Tumduff	23/11/2023	14:59	Whooper Swan	13	lakes and ponds; in the water	CR
WS092	Noggusduff	08/12/2023	09:05	Whooper Swan	2	cutover bog; flying	CR
WS093	Noggusduff	08/12/2023	09:43	Whooper Swan	5	lakes and ponds; flying/landing	CR
WS094	Tumduff	08/12/2023	12:59	Whooper Swan	5	lakes and ponds; roosting	CR
WS095	Tumduff	08/12/2023	13:12	Whooper Swan	6	lakes and ponds; roosting	CR
WS096	Turraun Nature Park	08/12/2023	14:15	Whooper Swan	2	lakes and ponds; roosting	CR
WS097	Noggusduff	21/12/2023	11:58	Whooper Swan	9	lakes and ponds; roosting	CR
WS098	Derrybrat	21/12/2023	13:53	Whooper Swan	3	lakes and ponds; roosting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS099	Tumduff	21/12/2023	14:55	Whooper Swan	7	lakes and ponds; roosting	CR
WS100	Tumduff	21/12/2023	15:01	Whooper Swan	23	lakes and ponds; roosting	CR
WS101	Noggusduff	03/01/2024	11:40	Whooper Swan	4	lakes and ponds; resting	CR
WS102	Drinagh	03/01/2024	13:18	Whooper Swan	6	lakes and ponds; foraging	CR
WS103	Derrybrat	03/01/2024	14:10	Whooper Swan	2	lakes and ponds; foraging	CR
WS104	Tumduff	03/01/2024	15:21	Whooper Swan	7	lakes and ponds; resting	CR
WS105	Tumduff	03/01/2024	15:30	Whooper Swan	8	lakes and ponds; foraging	CR
WS106	Turraun Nature Park	03/01/2024	16:42	Whooper Swan	7	lakes and ponds; resting	CR
WS107	Turraun Nature Park	18/01/2024	15:36	Whooper Swan	5	lakes and ponds; resting	CR
WS108	Tumduff	18/01/2024	15:55	Whooper Swan	41	improved grassland; foraging, resting	CR
WS109	Tumduff	30/01/2024	09:58	Whooper Swan	32	improved grassland; foraging, resting	CR
WS110	Tumduff	30/01/2024	10:10	Whooper Swan	5	lakes and ponds; resting	CR
WS111	Drinagh	12/02/2024	14:35	Whooper Swan	2	lakes and ponds; foraging	#REF!
WS112	Turraun Nature Park	12/02/2024	15:39	Whooper Swan	22	improved grassland; foraging	CR
WS113	Tumduff	12/02/2024	16:29	Whooper Swan	30	improved grassland; foraging	CR
WS114	Tumduff	27/02/2024	10:05	Whooper Swan	3	improved grassland; flying	CR
WS115	Tumduff	27/02/2024	10:17	Whooper Swan	17	improved grassland; foraging	CR
WS116	Drinagh	13/03/2024	15:08	Whooper Swan	1	lakes and ponds; resting	CR

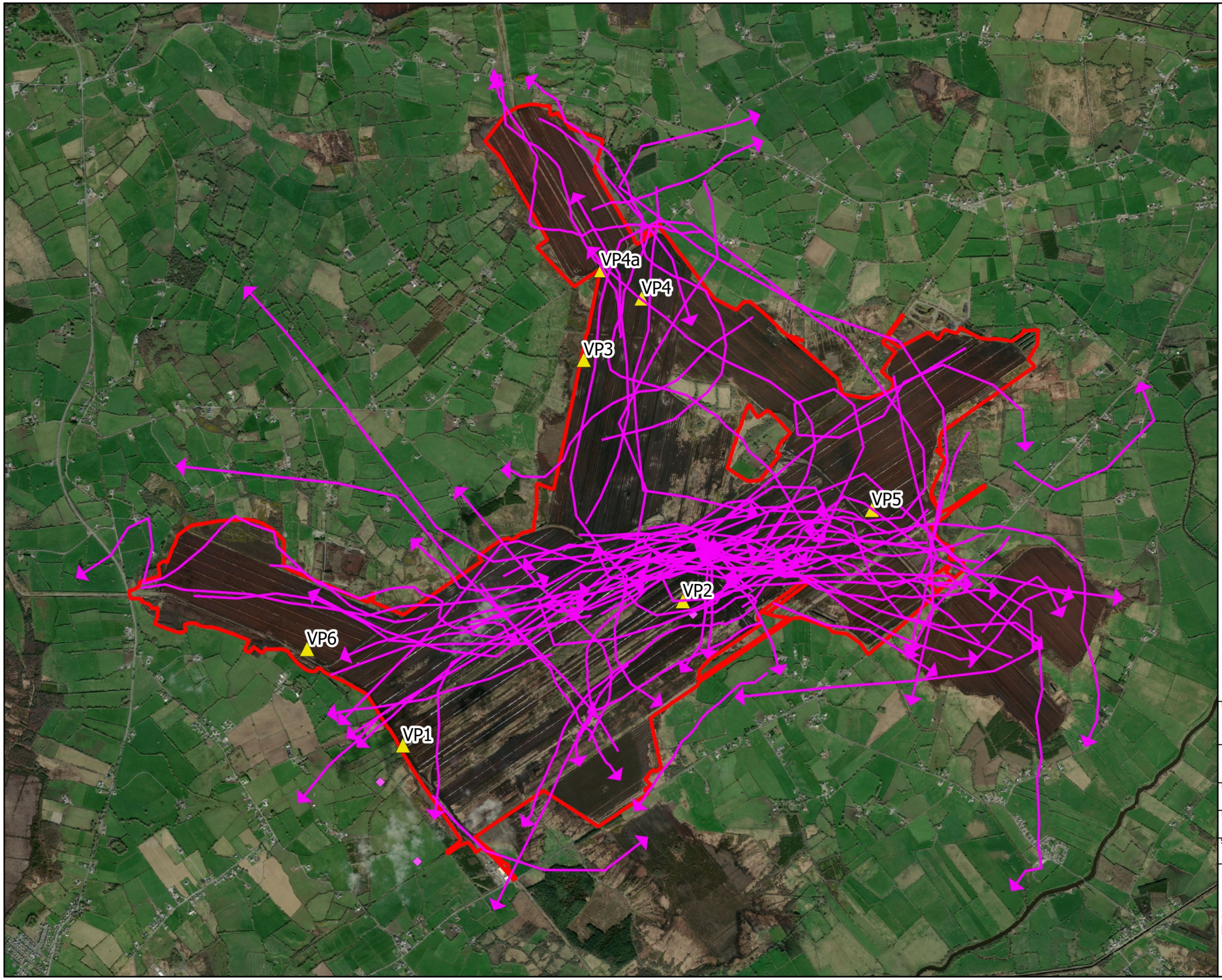
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS117	Tumduff	13/03/2024	16:30	Whooper Swan	27	improved grassland; foraging	CR
WS118	Turraun Nature Park	13/03/2024	18:15	Whooper Swan	70	improved grassland; foraging, resting	CR
WS119	Turraun Nature Park	26/03/2024	16:40	Whooper Swan	63	improved grassland; foraging	CR
WS120	Noggusduff	11/10/2024	11:45	Whooper Swan	2	watercourses and bogs; travelling	FOD
WS121	Noggusduff	11/10/2024	11:56	Whooper Swan	6	watercourses; loafing	FOD
WS122	Noggusduff	26/11/2024	12:36	Whooper Swan	2	watercourses; foraging	FOD
WS123	River Silver	07/01/2025	11:50	Whooper Swan	45	improved agricultural grassland; foraging	ZE
WS124	Tumduff	07/01/2025	14:30	Whooper Swan	21	improved agricultural grassland; foraging	ZE
WS125	River Silver	28/01/2025	12:51	Whooper Swan	28	improved agricultural grassland; foraging, possibly more, but out of sight due to the undulating landscape	ZE
WS126	Turraun Nature Park	28/01/2025	14:25	Whooper Swan	3	lakes and ponds and swamps; flying, calling, travelling north	ZE
WS127	Turraun Nature Park	28/01/2025	14:40	Whooper Swan	3	lakes and ponds and swamps; swimming, different individuals	ZE
WS128	Tumduff	29/01/2025	14:05	Whooper Swan	6	improved agricultural grassland; foraging	ZE
WS129	River Silver	05/02/2025	12:43	Whooper Swan	24	improved agricultural grassland and depositing/lowland rivers; foraging, possibly more but unable to see due to landscape	ZE
WS130	Tumduff	06/02/2025	14:43	Whooper Swan	38	improved agricultural grassland; foraging	ZE
WS131	River Silver	18/02/2025	12:40	Whooper Swan	2	improved agricultural grassland; foraging, both flew behind a small hill where probably the rest of the flock was foraging	ZE
WS132	Tumduff	19/02/2025	13:58	Whooper Swan	48	improved agricultural grassland; foraging	ZE
WS133	Turraun Nature Park	05/03/2025	15:47	Whooper Swan	2	bogs, scrub/transitional woodland and improved grassland; flying, travelling from grand canal area to southwest	ZE
WS134	Derrybrat	06/03/2025	12:58	Whooper Swan	4	lakes and ponds, swamps and cutover bog; foraging, swimming	ZE

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS135	Tumduff	06/03/2025	14:46	Whooper Swan	52	improved agricultural grassland; foraging	ZE
WS136	River Silver	19/03/2025	13:34	Whooper Swan	28	improved agricultural grassland and depositing/lowland rivers; foraging	ZE
WS137	Turraun Nature Park	19/03/2025	16:04	Whooper Swan	1	lakes and ponds and swamps; swimming, with mute swans	ZE
WS138	Derrybrat	20/03/2025	14:01	Whooper Swan	2	lakes and ponds, swamps and cutover bog; foraging	ZE
WS139	Tumduff	20/03/2025	15:01	Whooper Swan	11	improved agricultural grassland; foraging	ZE

Table 2-4 Whooper Swan Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS003	Waterbird Distribution and Abundance Survey; Boora	09/11/2020	10:06	Whooper Swan	7	improved agricultural grassland; travelling, travelling east in band 2	JH
WS004	Hen Harrier Roost Survey; HHVP2	09/12/2020	15:10	Whooper Swan	4	cutover bog; travelling	JH
WS005	Waterbird Distribution and Abundance Survey; Drinagh	09/02/2021	10:02	Whooper Swan	5	cutover bog and acid oligotrophic lakes; travelling, in band 3 flying westerly	JH
WS006	Hen Harrier Roost Survey; HHVP1	11/11/2021	15:47	Whooper Swan	1	improved grassland and highly modified/non-native woodland; flying, heading north west.	CR
WS007	Hen Harrier Roost Survey; HHVP2	17/01/2022	16:55	Whooper Swan	5	cutover bog and scrub; flying, small flock of five birds observed heading north east,	CR
WS008	Hen Harrier Roost Survey; North east of site near VP2	16/01/2023	16:07	Whooper Swan	5	cutover bog; calling, at least five birds heard calling	CR
WS010	Hen Harrier Roost Survey; Near VP3	02/03/2023	18:58	Whooper Swan	9	cutover bog; flying, observed departing waterbody heading south.	CR
WS011	Hen Harrier Roost Survey; HHVP2	07/11/2023	16:54	Whooper Swan	1	cutover bog; flying	CR
WS012	Hen Harrier Roost Survey; River Boora	28/11/2023	16:45	Whooper Swan	1	depositing/lowland rivers; calling, unknown if calling was within the 500 m site boundary	CR
WS013	Hen Harrier Roost Survey; River Brosna	05/12/2023	15:22	Whooper Swan	6	depositing/lowland rivers and improved grassland; flying, heading south-west. briefly entered site.	CR
WS014	Hen Harrier Roost Survey; HHVP2	05/12/2023	16:29	Whooper Swan	5	improved grassland; flying, within site boundary heading north east.	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WS015	Hen Harrier Roost Survey; River Brosna	11/12/2023	16:15	Whooper Swan	5	improved grassland and depositing/lowland rivers; calling	CR
WS017	Hen Harrier Roost Survey; River Brosna	08/01/2024	17:21	Whooper Swan	2	improved grassland and depositing/lowland rivers; calling	CR
WS018	Vantage Point Survey; VP4	26/01/2024	12:20	Whooper Swan	1	bogs; calling, heard, not seen	JD
WS020	Vantage Point Survey; VP2	08/03/2024	08:39	Whooper Swan	2	cutover bog and scrub/transitional woodland; flying, calling	CR
WS021	Hen Harrier Roost Survey; HHVP6	28/01/2025	17:49	Whooper Swan	2	bogs; flying, calling, probably towards turraun nature park	ZE
WS022	Hen Harrier Roost Survey; HHVP6	28/01/2025	17:57	Whooper Swan	2	semi-natural woodland and bogs; flying, calling, heard only, estimated number; possibly flying towards turraun as well	ZE
WS023	Hen Harrier Roost Survey; River Brosna	06/03/2025	18:55	Whooper Swan	10	semi-natural grassland, improved grassland and watercourses; calling, heard only; estimated number as the birds were not seen; very likely within the 500m radius; heard for approximately 10 minutes	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

N

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Drawing Title
Whooper Swan Observations
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.1
Scale	Date
1:35,000	17.07.2025

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Observations of Whooper Swan form Vantage Point Surveys have been further divided across the following Figures in order to improve readability:

- Figure 2-1a – Whooper Swan Vantage Point Survey Data Winter Season 2020/21
- Figure 2-1b – Whooper Swan Vantage Point Survey Data Winter Season 2022/22
- Figure 2-1c – Whooper Swan Vantage Point Survey Data Winter Season 2022/23
- Figure 2-1d – Whooper Swan Vantage Point Survey Data Winter Season 2023/24
- Figure 2-1e – Whooper Swan Vantage Point Survey Data Winter Season 2024/25



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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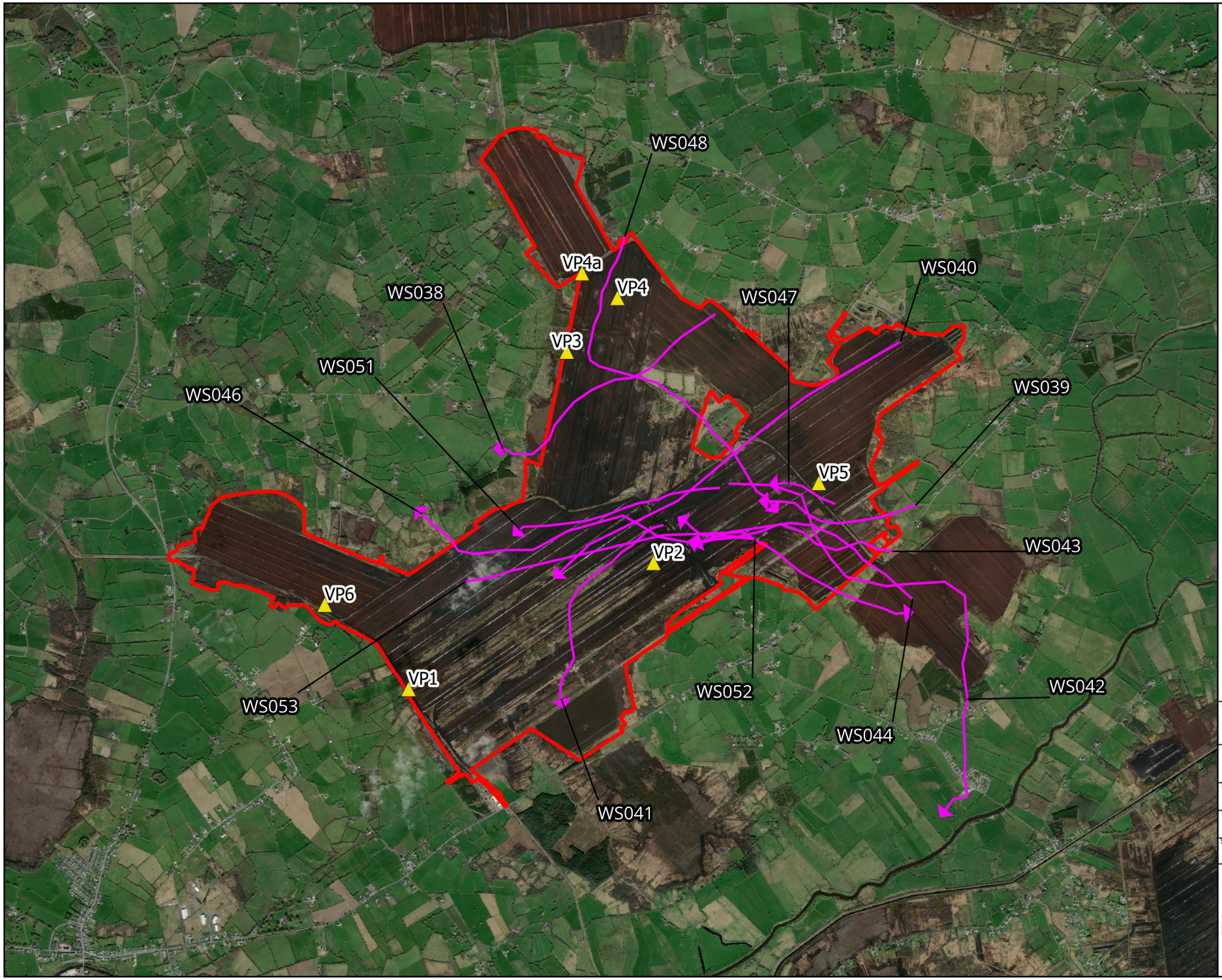
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Drawing Title
Whooper Swan Observations Winter 2020/21 Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 2.1a
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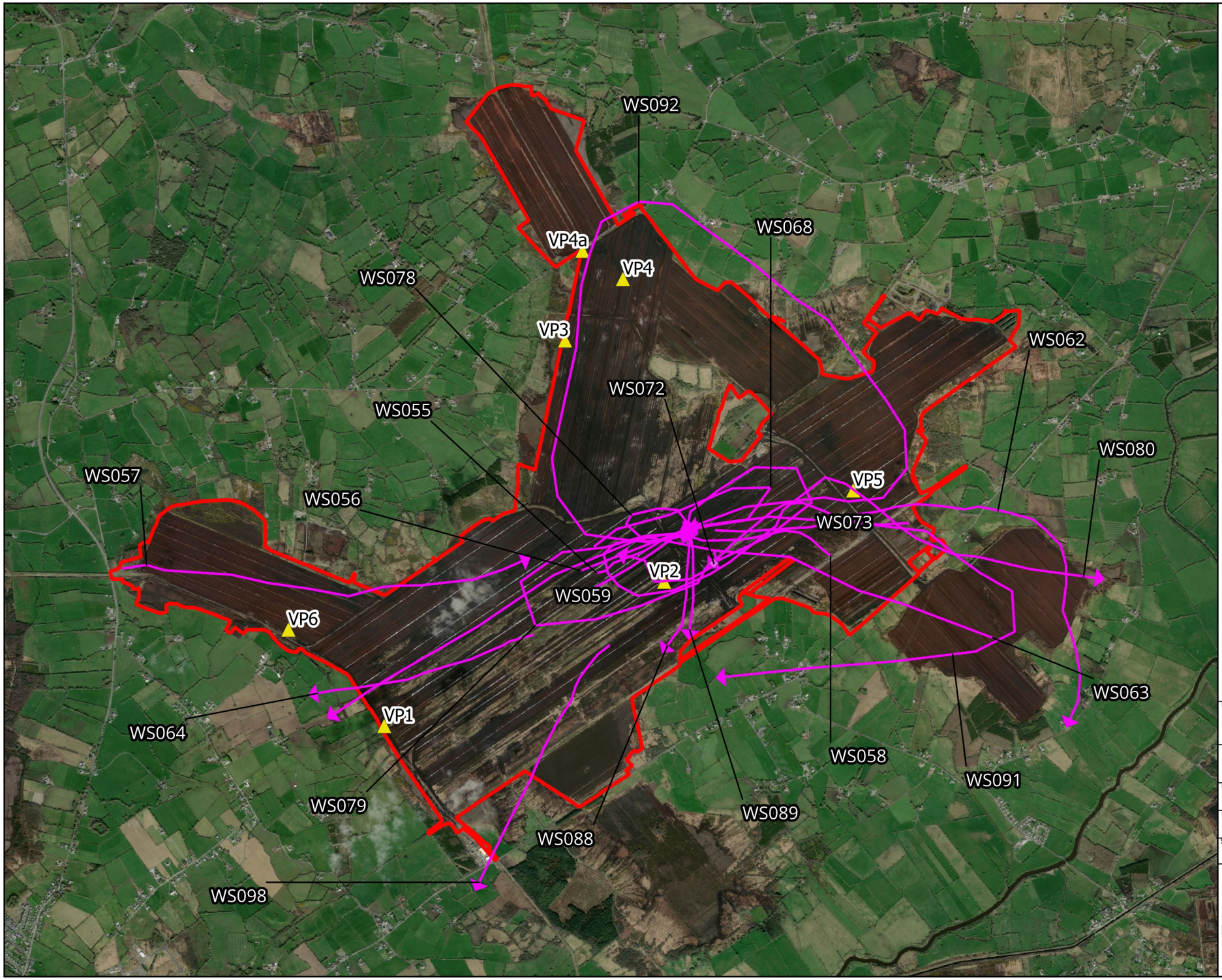
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Drawing Title: Whooper Swan Observations Winter 2021/22 Vantage Point Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.1b
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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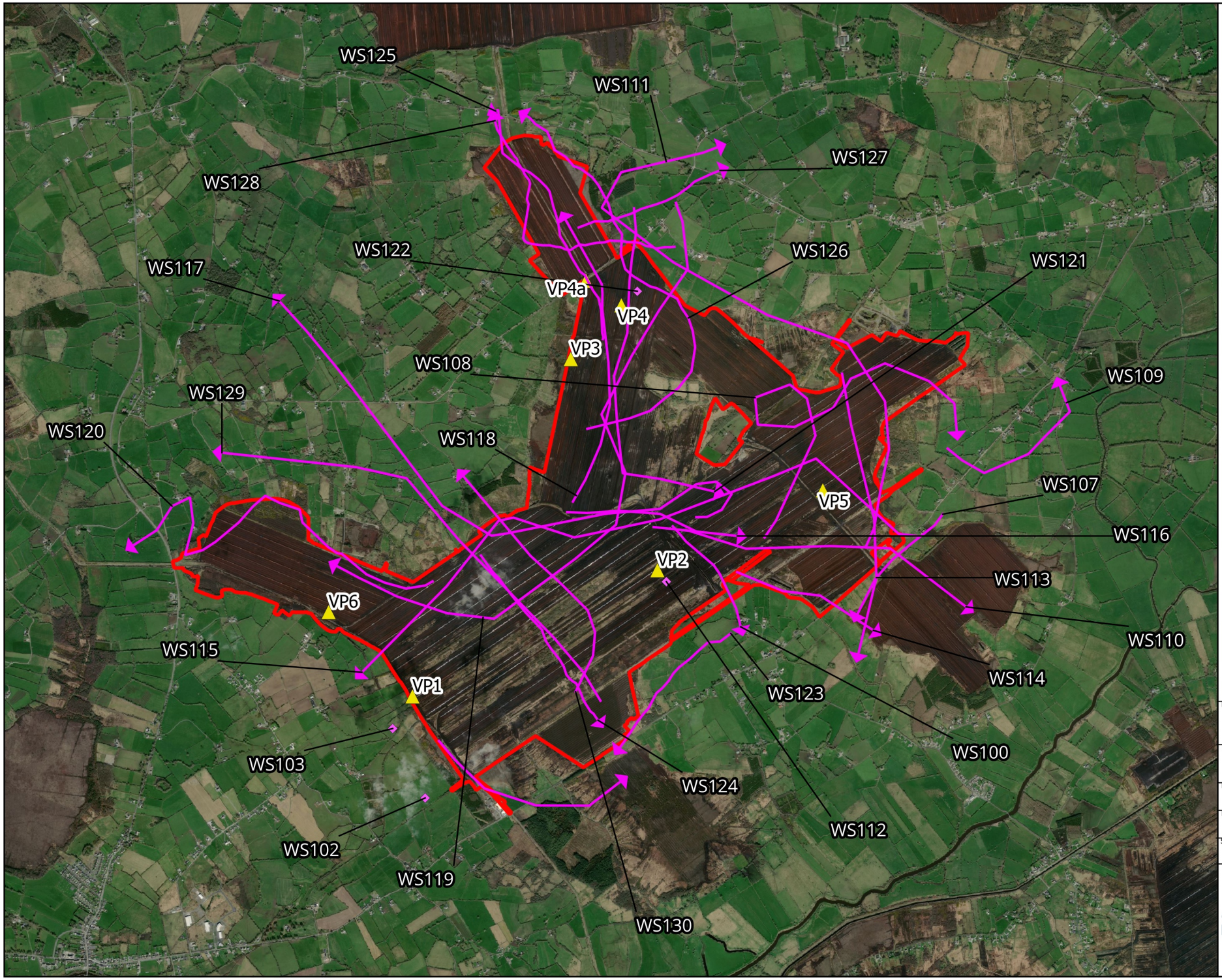
Whooper Swan Observations Winter 2022/23 Vantage Point Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 2.1c
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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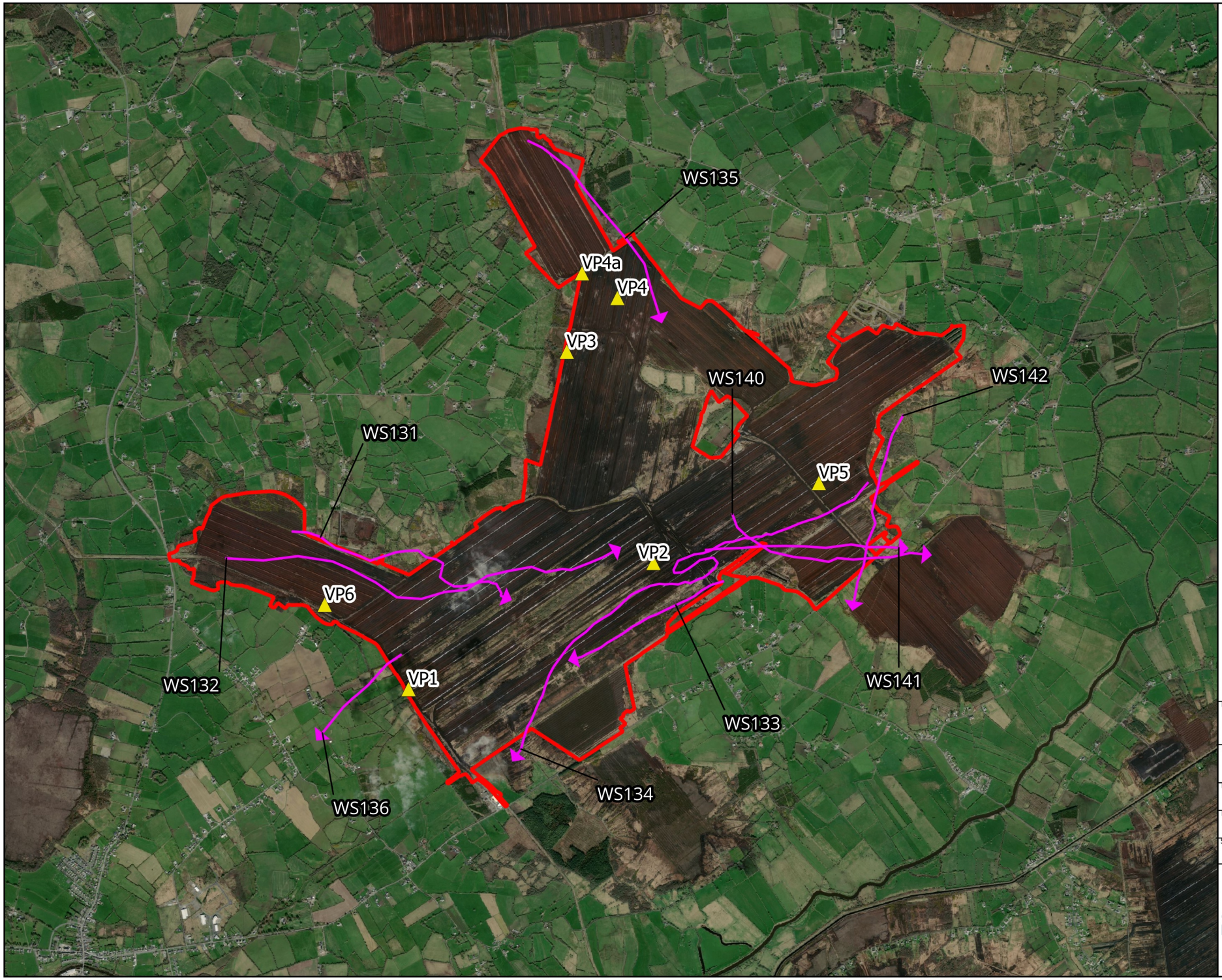
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Whooper Swan Observations Winter 2023/24 Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.1d
Scale	Date
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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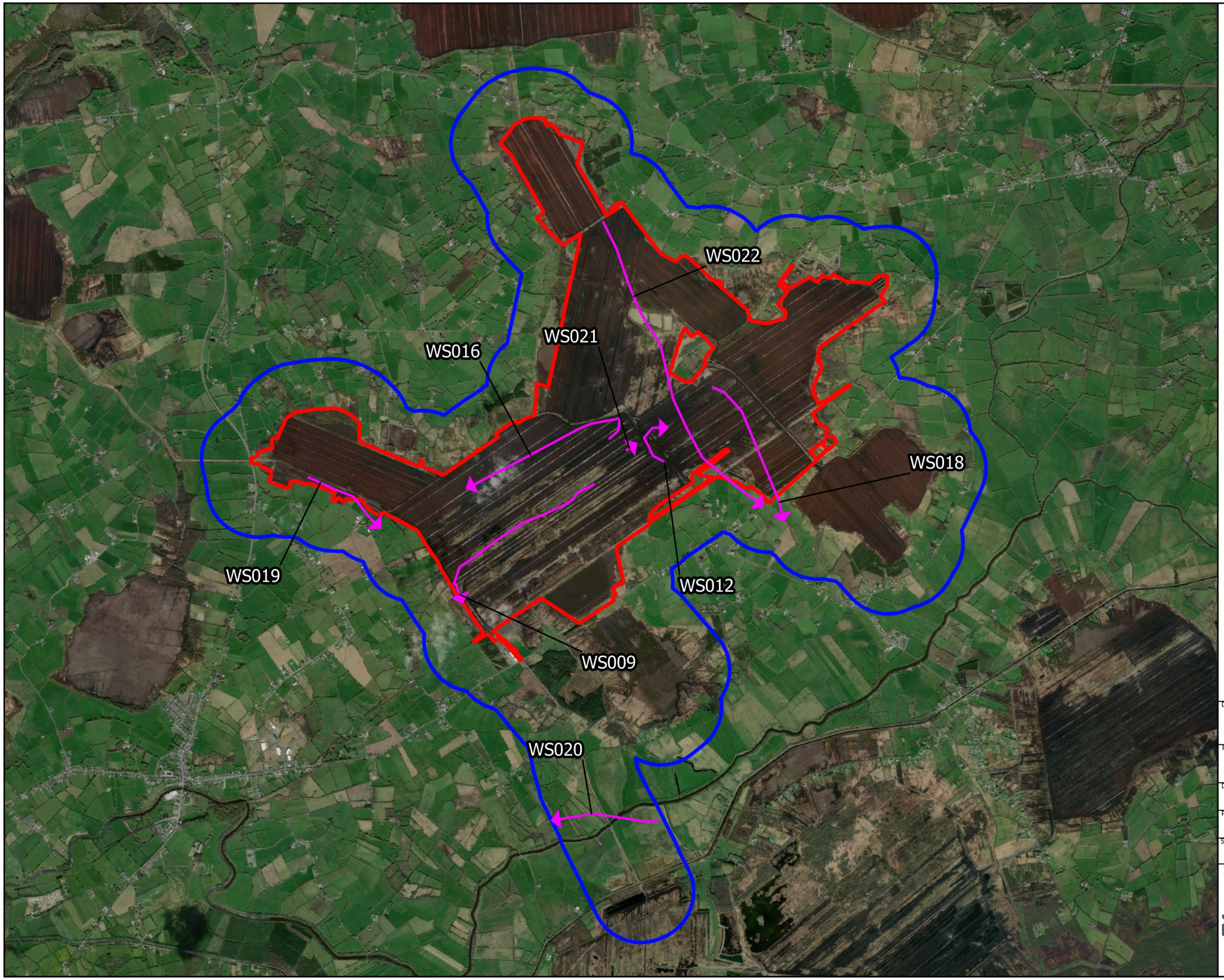
Whooper Swan Observations Winter 2024/25 Vantage Point Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.1e
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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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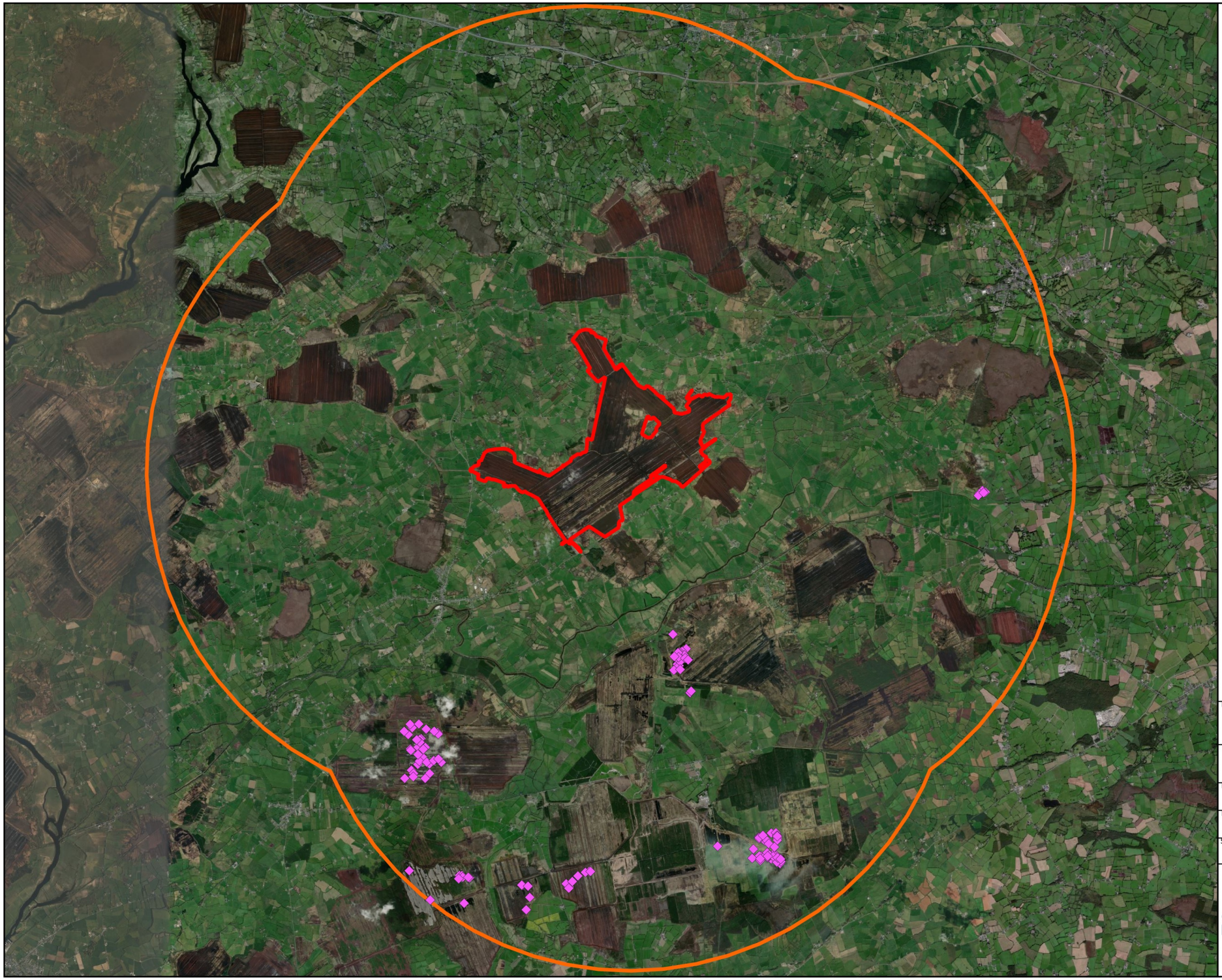
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Drawing Title
Whooper Swan Observations
Winter Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.2
Scale	Date
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Drawing Title
Whooper Swan Observations
Waterbird Distribution and Abundance Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3
Scale	Date
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Observations of Whooper Swan form Waterbird Distribution and Abundance Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 2-3a – Whooper Swan Waterbird and Distribution Survey Data Winter Season 2020/21
- Figure 2-3b – Whooper Swan Waterbird and Distribution Survey Data Winter Season 2022/22
- Figure 2-3c – Whooper Swan Waterbird and Distribution Survey Data Winter Season 2022/23
- Figure 2-3d – Whooper Swan Waterbird and Distribution Survey Data Winter Season 2023/24
- Figure 2-3e – Whooper Swan Waterbird and Distribution Survey Data Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Whooper Swan Observations Winter 2020/21
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3a
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
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Whooper Swan Observations Oct21-Sep22
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3b
Scale	Date
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Map Legend

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- 8km Survey Radius
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Whooper Swan Observations Winter 2022/23
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3c
Scale	Date
1:122,000	17.07.2025

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Map Legend

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- Observation

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Drawing Title

Whooper Swan Observations Winter 2023/24
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3d
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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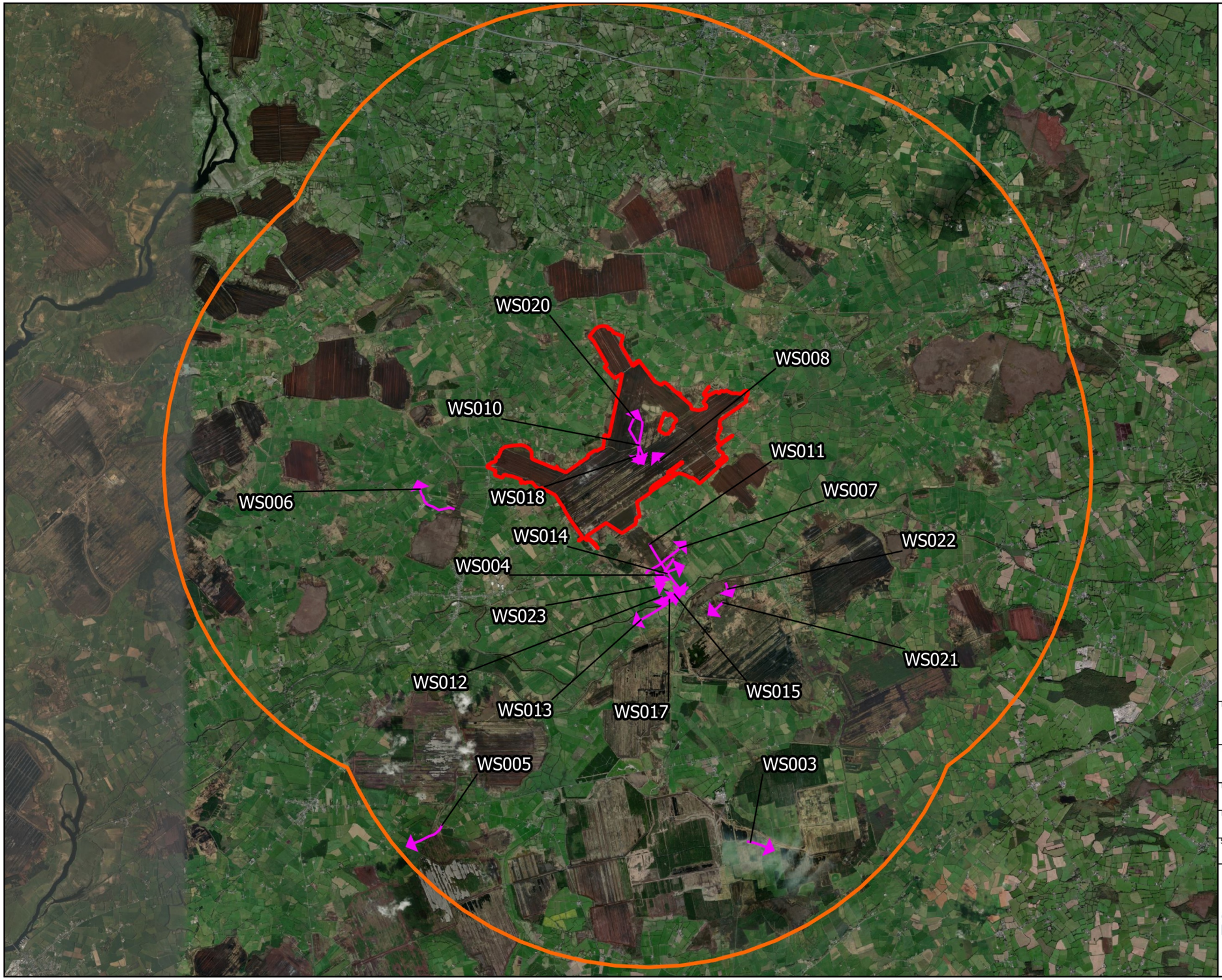
Whooper Swan Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.3e
Scale	Date
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Map Legend

Application Site Boundary

8km Survey Radius

Observation

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Drawing Title

Whooper Swan
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 2.4
Scale	Date
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3. CRANE

Table 3-1 Crane Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
AN001	23/07/2024	10:40	T2	Crane	2	bogs; feeding, travelling, two adults, male and female, spotted feeding on the bog before flying towards the wind speed mast and appearing to settle on the bog out of sight. (suitable nesting habitat; possible breeder)	PDC
AN002	24/07/2024	07:58	T3	Crane	2	bogs; travelling, settled, flew across from main part of bog, settled but then i lost them behind scrub (suitable nesting habitat; possible breeder)	PDC

Table 3-2 Crane Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
AN001	Waterbird Distribution and Abundance Survey; Noggusduff	31/08/2022	12:49	Crane	1	turloughs; flying, adult crane observed flying low over turlough. last seen turning north.	CR
AN002	Breeding Raptor Survey; BR4	16/04/2024	09:11	Crane	1	cutover bog; flying	NL
AN003	Waterbird Distribution and Abundance Survey; Derrybrat	20/03/2025	14:07	Crane	1	cutover bog, swamps and lakes and ponds; foraging	ZE



Map Legend

Application Site Boundary

Flight Observation

N

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Drawing Title

Crane Observations
Breeding Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 3.1
Scale	Date
1:30,000	17.07.2025

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Map Legend

Application Site Boundary

8km Survey Radius

Observation

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Drawing Title

Crane
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 3.2
Scale	Date
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4. HEN HARRIER

Note: Sensitive records relating to roosting sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 4-1 Hen Harrier Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
HH001	VP3	10/11/2020	12:58	Hen Harrier	1	55	0	55	0	0	cutover bog and scrub; travelling, male hen harrier flying westerly in direction	JH
HH002	VP4	15/12/2020	13:19	Hen Harrier	1	90	90	0	0	0	cutover bog and scrub; hunting, being mobbed by peregrine and flying on	JH
HH003	VP5	13/01/2021	09:29	Hen Harrier	1	42	42	0	0	0	cutover bog and scrub; hunting, landing on cut over bog. female	JH
HH004	VP4	23/04/2021	16:05	Hen Harrier	1	55	55	0	0	0	cutover bog, conifer plantation and improved grassland; fly w, then n, female	SF
HH005	VP1	25/01/2022	15:56	Hen Harrier	1	129	129	0	0	0	cutover bog and scrub; flying, ringtail hen harrier; last seen heading east.	CR
HH006	VP1	03/02/2022	13:34	Hen Harrier	1	15	15	0	0	0	cutover bog; flying, ringtail flying over trees last seen heading north	NS
HH007	VP2	22/02/2022	12:09	Hen Harrier	1	140	40	100	0	0	cutover bog; flying, ringtail bombed by peregrine	NS
HH008	VP5	02/09/2022	16:45	Hen Harrier	1	38	38	0	0	0	cutover bog; flying, ringtail harrier heading south-east.	CR
HH009	VP2	20/10/2022	08:36	Hen Harrier	1	125	125	0	0	0	cutover bog and scrub; flying, ringtail observed heading west.	CR
HH010	VP3	17/02/2023	11:03	Hen Harrier	1	260	185	12	63	0	cutover bog and scrub; flying/mobbed by hooded crows, male bird last seen heading south-east.	CR
HH011	VP1	29/09/2023	08:59	Hen Harrier	1	88	88	0	0	0	cutover bog; flying, ringtail harrier last seen heading east.	CR
HH012	VP1	30/11/2023	14:14	Hen Harrier	1	204	13	51	140	0	cutover bog; flying, ringtail harrier, last seen heading north.	CR
HH013	VP1	20/02/2024	13:06	Hen Harrier	1	93	93	0	0	0	cutover bog and scrub/transitional woodland; flying, ringtail	CR
HH014	VP1	20/02/2024	16:54	Hen Harrier	1	81	23	18	40	0	cutover bog and scrub/transitional woodland; flying, ringtail	CR
HH015	VP4	18/09/2024	10:47	Hen Harrier	1	270	0	0	270	0	conifer plantation and improved agricultural grassland; travelling, juvenile,	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											probably male from size. seemed to be displaying as it was stooping and soaring. white rump visible	
HH016	VP1	11/03/2025	10:27	Hen Harrier	1	150	150	0	0	0	cutover bog and semi-natural woodland; hunting, male	ZE

Table 4-2 Hen Harrier Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
HH001	23/01/2023	15:33	-	Hen Harrier	1	improved grassland; flying, male heading east. (wintering)	CR
HH002	09/10/2023	16:55	-	Hen Harrier	1	improved grassland; flying, male bird heading north within the site boundary. (wintering)	CR
HH003	07/11/2023	13:35	-	Hen Harrier	1	cutover bog; flying, ringtail hen harrier last seen heading east. (wintering)	CR
HH004	12/03/2024	14:32	-	Hen Harrier	1	scrub/transitional woodland and improved grassland; flying, male (wintering)	CR

Table 4-3 Hen Harrier Roost Survey Data

Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH001	HHVP2	20/10/2020	17:08	Hen Harrier	1	raised bog, cutover bog and bog woodland, hunting and flying east, male hen harrier hunting	JH
HH002	HHVP2	20/10/2020	17:39	Hen Harrier	1	raised bog, cutover bog and bog woodland, hunting, ringtail hen harrier hunting and flying easterly	JH
HH003	HHVP2	20/10/2020	18:06	Hen Harrier	1	raised bog and bog woodland, hunting, ringtail hen harrier	JH
HH004	HHVP2	20/10/2020	18:09	Hen Harrier	1	raised bog and bog woodland, travelling, male hen harrier disappearing into cover	JH
HH005	HHVP2	20/10/2020	18:19	Hen Harrier	1	raised bog and bog woodland, hunting, male hen harrier disappearing behind cover	JH
HH006	HHVP2	20/10/2020	18:25	Hen Harrier	1	raised bog, bog woodland and cutover bog, travelling, ringtail hen harrier flying and disappearing into cover	JH
HH007	HHVP2	20/10/2020	18:28	Hen Harrier	1	raised bog, cutover bog and bog woodland, hunting and disappearing into cover, ringtail hen harrier disappearing into cover	JH
HH008	HHVP2	20/10/2020	18:31	Hen Harrier	1	raised bog and bog woodland, hunting, ringtail hen harrier hunting and disappearing behind cover	JH

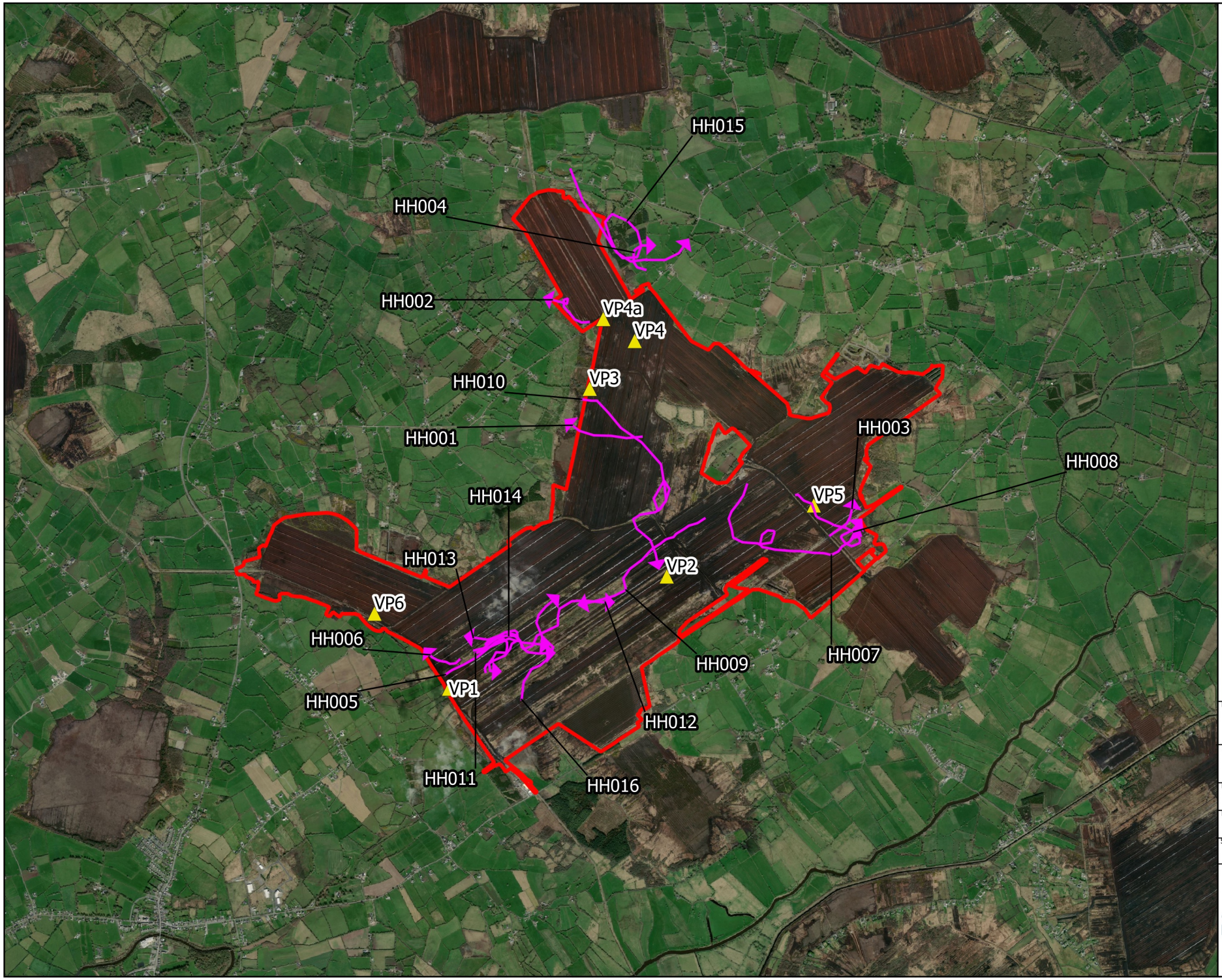
Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH009	HHVP2	20/10/2020	18:36	Hen Harrier	1	raised bog and bog woodland, disappearing into cover, male hen harrier	JH
HH010	HHVP2	23/11/2020	16:18	Hen Harrier	1	cutover bog, upland blanket bog and scrub, hunting, female disappearing into scrub	JH
HH011	HHVP2	09/12/2020	15:40	Hen Harrier	1	cutover bog, upland blanket bog and scrub, hunting, male hunting and flying on	JH
HH013	HHVP2	09/12/2020	16:31	Hen Harrier	1	upland blanket bog and scrub, travelling, male	JH
HH014	HHVP2	14/01/2021	16:53	Hen Harrier	1	upland blanket bog and scrub, travelling, female hunting	JH
HH015	HHVP2	14/01/2021	17:07	Hen Harrier	1	upland blanket bog and scrub, gliding and disappearing into cover, female	JH
HH016	HHVP4	20/01/2021	15:40	Hen Harrier	1	cutover bog, upland blanket bog and scrub, travelling, female being mobbed by hooded crow	JH
HH017	HHVP5	17/11/2021	16:25	Hen Harrier	1	improved grassland and cutover bog, flying, ringtail observed getting mobbed by jackdaws. last seen heading east.	CR
HH019	HHVP2	10/02/2023	16:56	Hen Harrier	1	bogs, flying/perched, male observed landing on small tree. remained perched until 17:00 pm.	CR
HH020	HHVP2	10/02/2023	16:59	Hen Harrier	1	bogs, flying, likely same ringtail observed at 16:53 pm. last seen heading south.	CR
HH021	HHVP2	10/02/2023	17:00	Hen Harrier	1	bogs, flying, male left area heading south.	CR
HH023	HHVP2	31/03/2023	07:16	Hen Harrier	1	cutover bog, flying, ringtail hen harrier. landed on tree where it remained up to the end of survey.	CR
HH024	HHVP2	07/11/2023	16:41	Hen Harrier	1	highly modified/non-native woodland and cutover bog, flying, male last observed diving beyond row of trees	CR
HH025	HHVP1	09/11/2023	15:15	Hen Harrier	1	improved grassland and bogs, flying, ringtail observed descending towards bog (heading south).	CR
HH027	HHVP2	07/12/2023	15:33	Hen Harrier	1	cutover bog, flying, ringtail bird heading south.	CR
HH028	HHVP2	26/01/2024	15:05	Hen Harrier	1	cutover bog and improved grassland, flying, ringtail	CR
HH029	HHVP2	07/02/2024	16:44	Hen Harrier	1	cutover bog and scrub/transitional woodland, flying, male	CR
HH030	HHVP2	07/02/2024	17:07	Hen Harrier	1	cutover bog and scrub/transitional woodland, flying, perching, male landed on tree.	CR

Ref.	HHVP	Date	Time	Species	Number	Habitat and activity	Surveyor
HH032	HHVP4	13/02/2024	15:42	Hen Harrier	1	cutover bog and improved grassland, flying, ringtail	CR
HH033	HHVP1	11/03/2024	17:16	Hen Harrier	1	bogs, flying, landing, male	CR

Table 4-4 Hen Harrier Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
HH001	Waterbird Distribution and Abundance Survey; Noggus	27/11/2020	14:21	Hen Harrier	1	cutover bog, acid oligotrophic lakes and scrub; hunting, disappearing into scrub. female	JH
HH002	Waterbird Distribution and Abundance Survey; Derrybrat	15/03/2021	08:42	Hen Harrier	1	cutover bog and scrub/transitional woodland; hunting, ringtail	PT
HH003	Waterbird Distribution and Abundance Survey; Lumcloon	15/03/2021	11:40	Hen Harrier	1	cutover bog, grassland and marsh and conifer plantation; direct flight , ringtail, up high heading se	PT
HH004	Waterbird Distribution and Abundance Survey; Tumduff Mor	15/03/2021	15:46	Hen Harrier	1	grassland and marsh, cutover bog and scrub/transitional woodland; hunting, ringtail	PT
HH005	Waterbird Distribution and Abundance Survey; Tumduff	10/11/2021	13:02	Hen Harrier	1	lakes and ponds and improved grassland; flying, ringtail hen harrier observed heading south.	CR
HH006	Waterbird Distribution and Abundance Survey; Tumduff	10/11/2021	13:22	Hen Harrier	1	highly modified/non-native woodland and lakes and ponds; flying, ringtail hen harrier observed heading east.	CR
HH007	Waterbird Distribution and Abundance Survey; Tarrun Nature Park	09/12/2021	16:28	Hen Harrier	1	lakes and ponds and highly modified/non-native woodland; flying, ringtail observed heading east.	CR
HH008	Waterbird Distribution and Abundance Survey; Derrybrat	22/12/2021	13:08	Hen Harrier	1	lakes and ponds and conifer plantation; flying, ringtail observed diving beyond row of trees.	CR
HH009	Waterbird Distribution and Abundance Survey; Tumduff	28/01/2022	14:01	Hen Harrier	1	improved grassland; flying, ringtail hen harrier observed heading east.	CR
HH010	Waterbird Distribution and Abundance Survey; Derrybrat	09/02/2022	15:49	Hen Harrier	1	conifer plantation and lakes and ponds; flying, ringtail hen harrier observed heading south west.	CR
HH011	Waterbird Distribution and Abundance Survey; Noggusduff	30/08/2022	12:54	Hen Harrier	1	turloughs and conifer plantation; flying, ringtail observed heading west.	CR
HH012	Waterbird Distribution and Abundance Survey; Tumduff	15/09/2022	16:25	Hen Harrier	1	improved grassland; flying, ringtail last seen heading east.	CR
HH013	Waterbird Distribution and Abundance Survey; Drinagh	30/09/2022	13:50	Hen Harrier	1	highly modified/non-native woodland and turloughs; flying, ringtail heading south.	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
HH014	Waterbird Distribution and Abundance Survey; Turruan Nature Park	07/12/2022	16:18	Hen Harrier	1	lakes and ponds and improved grassland; flying, ringtail heading north-west.	CR
HH015	Waterbird Distribution and Abundance Survey; Finnamore lakes	10/01/2023	16:15	Hen Harrier	1	lakes and ponds and conifer plantation; flying, ringtail harrier observed heading east.	CR
HH016	Waterbird Distribution and Abundance Survey; Tumduff	26/01/2023	13:33	Hen Harrier	1	lakes and ponds, improved grassland and conifer plantation; flying, ringtail harrier heading south.	CR
HH017	Waterbird Distribution and Abundance Survey; Tumduff	21/02/2023	10:09	Hen Harrier	1	improved grassland; flying, ringtail heading south.	CR
HH018	Waterbird Distribution and Abundance Survey; Drinagh	07/03/2023	13:25	Hen Harrier	1	bogs and improved grassland; flying, ringtail	CR
HH019	Waterbird Distribution and Abundance Survey; Tumduff	21/03/2023	12:02	Hen Harrier	1	improved grassland, lakes and ponds and conifer plantation; flying, ringtail	CR
HH020	Waterbird Distribution and Abundance Survey; Tumduff	21/03/2023	12:07	Hen Harrier	1	improved grassland and lakes and ponds; flying, ringtail	CR
HH021	Waterbird Distribution and Abundance Survey; Derrybrat	12/02/2024	15:13	Hen Harrier	1	cutover bog and highly modified/non-native woodland; flying, ringtail	CR
HH022	Waterbird Distribution and Abundance Survey; Tumduff	12/02/2024	17:00	Hen Harrier	1	scrub/transitional woodland and highly modified/non-native woodland; flying, ringtail	CR
HH023	Waterbird Distribution and Abundance Survey; Tumduff	12/02/2024	17:10	Hen Harrier	1	scrub/transitional woodland and highly modified/non-native woodland; flying, ringtail	CR
HH024	Waterbird Distribution and Abundance Survey; lough boora	17/12/2024	13:37	Hen Harrier	1	improved agricultural grassland; hunting, female	FOD
HH025	Waterbird Distribution and Abundance Survey; lough boora	17/12/2024	14:01	Hen Harrier	1	improved agricultural grassland; hunting, female	FOD



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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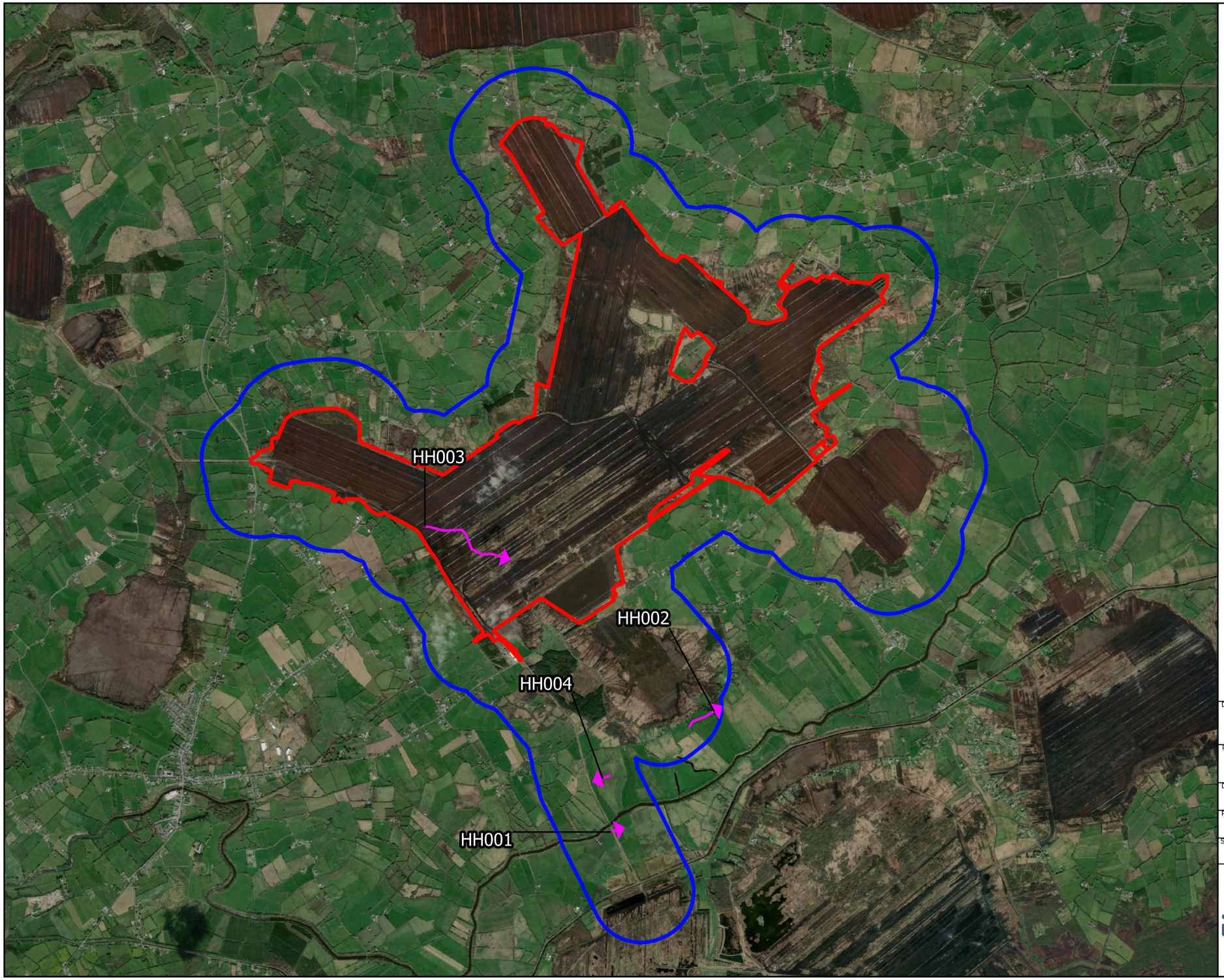
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Drawing Title
Hen Harrier Observations
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 4.1
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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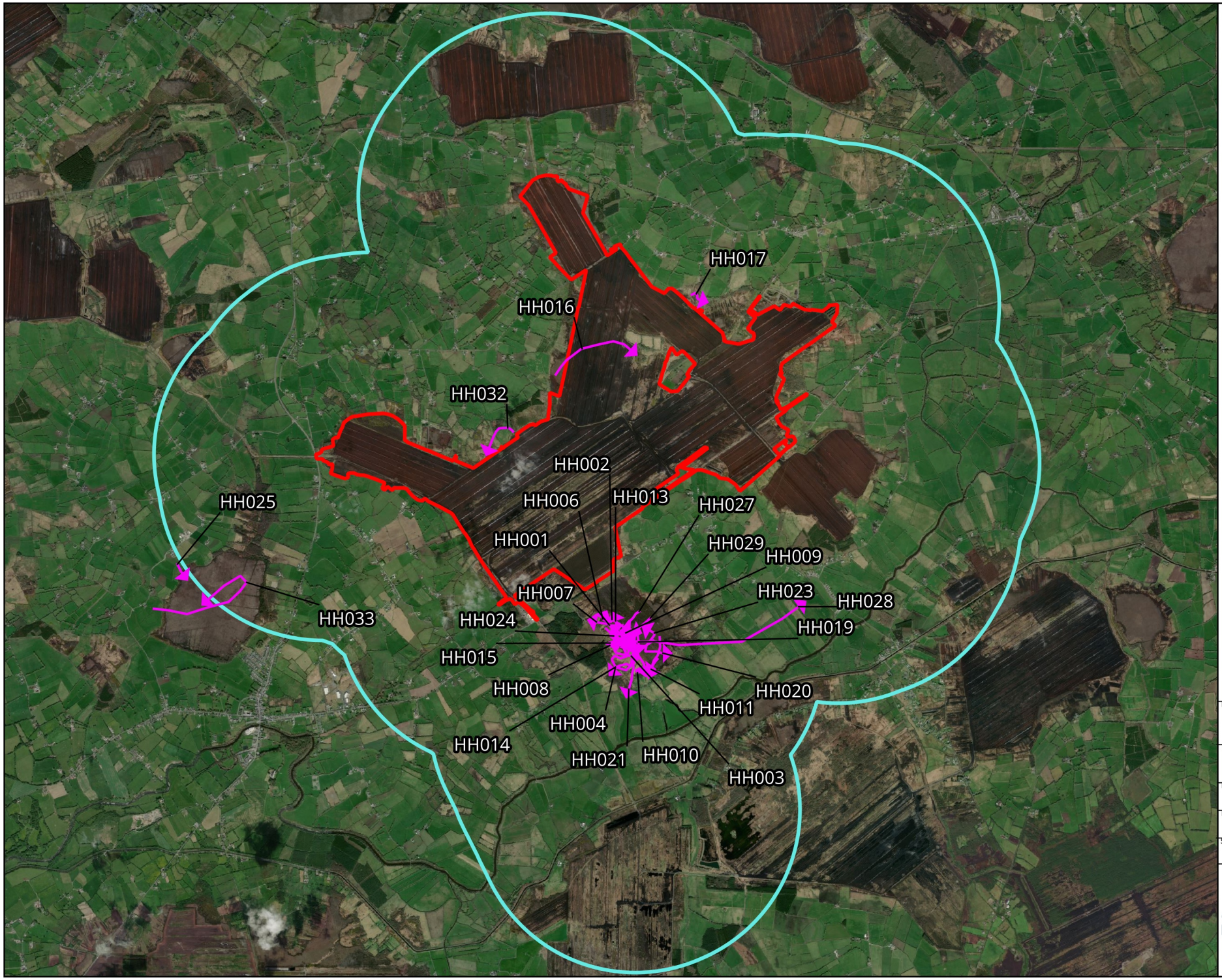
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Drawing Title
Hen Harrier Observations
Winter Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 4.2
Scale	Date
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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title

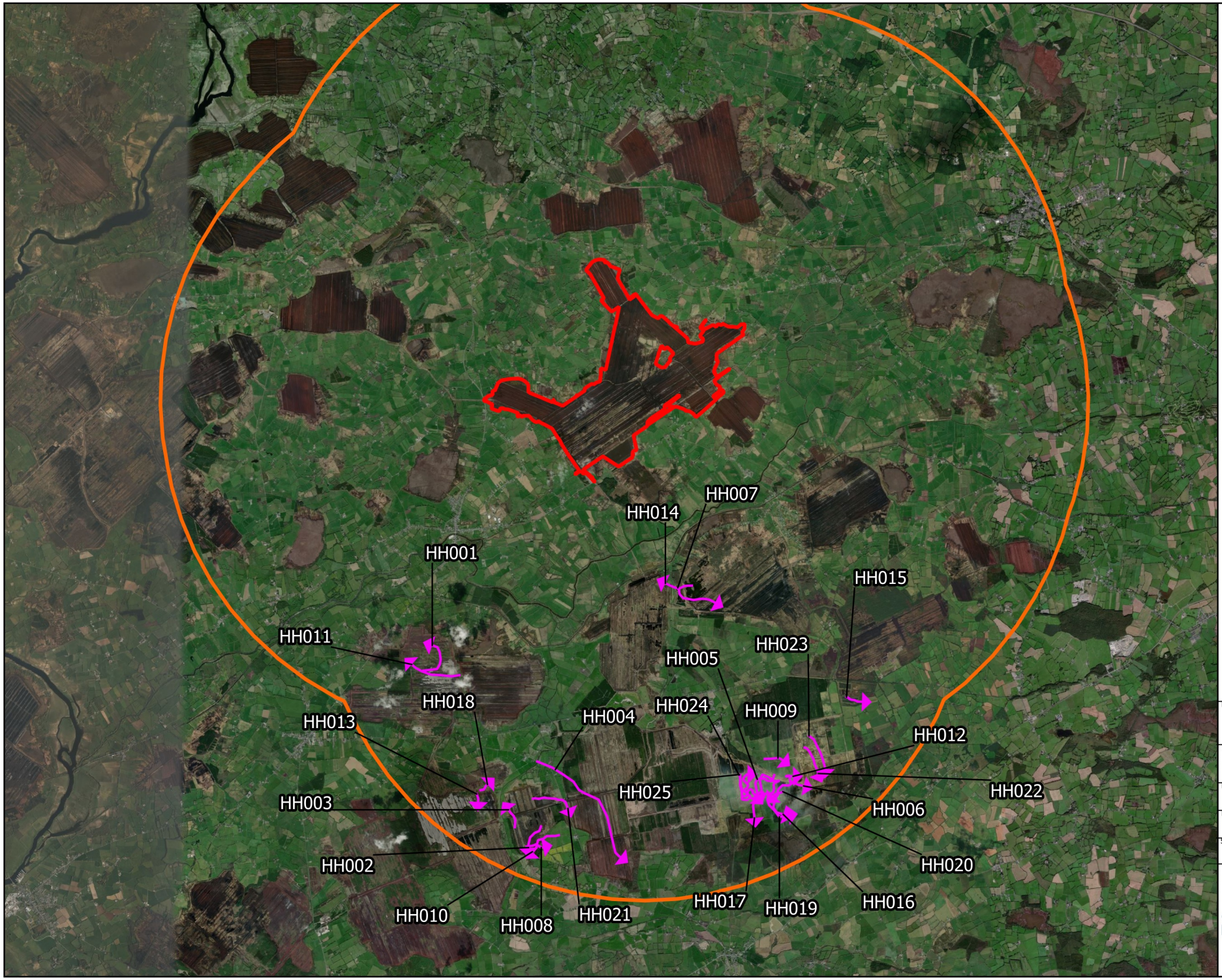
Hen Harrier Observations
Hen Harrier Roost Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 4.3
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Hen Harrier
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 4.4
Scale	Date
1:122,000	17.07.2025

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5. KINGFISHER

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 5-1 Kingfisher Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
KF001	VP2	02/05/2023	08:09	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR
KF002	VP2	02/05/2023	08:11	Kingfisher	1	13	13	0	0	0	cutover bog; flying	CR
KF008	VP2	13/07/2023	19:03	Kingfisher	1	20	20	0	0	0	cutover bog; flying	CR
KF009	VP2	13/07/2023	20:05	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR
KF010	VP2	13/07/2023	20:16	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR
KF013	VP2	08/03/2024	07:30	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR
KF014	VP2	08/03/2024	08:19	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR
KF015	VP2	08/03/2024	09:09	Kingfisher	1	-	-	-	-	-	cutover bog; calling	CR

Table 5-2 Kingfisher Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
KF001	28/04/2022	12:17	-	Kingfisher	1	scrub; flying, heading north east. (suitable nesting habitat; possible breeder)	CR
KF002	09/05/2022	12:56	-	Kingfisher	1	depositing/lowland rivers; flying, heading west along bank of river brosna. (suitable nesting habitat; possible breeder)	CR
KF003	09/05/2022	13:11	-	Kingfisher	1	depositing/lowland rivers and improved grassland; flying, heading north east. (suitable nesting habitat; possible breeder)	CR
KF004	09/05/2022	13:48	-	Kingfisher	1	depositing/lowland rivers and improved grassland; flying, heading west. (suitable nesting habitat; possible breeder)	CR
KF005	09/05/2022	14:16	-	Kingfisher	1	depositing/lowland rivers; flying, heading east along river bank. (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
KF006	01/06/2022	08:16	-	Kingfisher	1	depositing/lowland rivers; flying/calling (suitable nesting habitat; possible breeder)	CR
KF007	01/06/2022	08:20	-	Kingfisher	1	depositing/lowland rivers; flying/calling, hesding east. likely same bird observed at 08:16. (suitable nesting habitat; possible breeder)	CR
KF011	29/05/2023	19:04	-	Kingfisher	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
KF013	19/07/2023	17:52	-	Kingfisher	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
KF014	19/07/2023	19:05	-	Kingfisher	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
KF015	29/05/2024	08:57	T3	Kingfisher	1	bogs; flushed, flew out from pool directly in front of vp2, heading towards large ditch (suitable nesting habitat; possible breeder)	PDC
KF016	24/06/2024	11:24	T1	Kingfisher	1	watercourses; flushed (suitable nesting habitat; possible breeder)	PDC
KF017	24/06/2024	11:25	T1	Kingfisher	1	watercourses; travelling, followed first bird but from other side of river (suitable nesting habitat; possible breeder)	PDC
KF018	22/07/2024	09:38	T1	Kingfisher	1	watercourses; travelling, perched, male, perched briefly in tree close to bridge (suitable nesting habitat; possible breeder)	PDC
KF019	22/07/2024	09:39	T1	Kingfisher	1	watercourses; perching, fishing, travelling, spotted perched on muddy bank before it flew into overhanging tree. fished once, seemed to catch something then flew off along the river (suitable nesting habitat; possible breeder)	PDC
KF020	23/07/2024	07:59	T2	Kingfisher	1	drainage ditches and bogs; perched, perched on branch of overhanging tree in a ditch (suitable nesting habitat; possible breeder)	PDC

Table 5-3 Kingfisher Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
KF001	24/03/2022	15:09	-	Kingfisher	1	cutover bog; flying, observed flying along waterbody. (wintering)	CR
KF002	13/10/2022	18:20	-	Kingfisher	1	depositing/lowland rivers; flying, heading east at river boora. (wintering)	CR
KF003	12/03/2024	15:03	-	Kingfisher	1	depositing/lowland rivers; calling (wintering)	CR

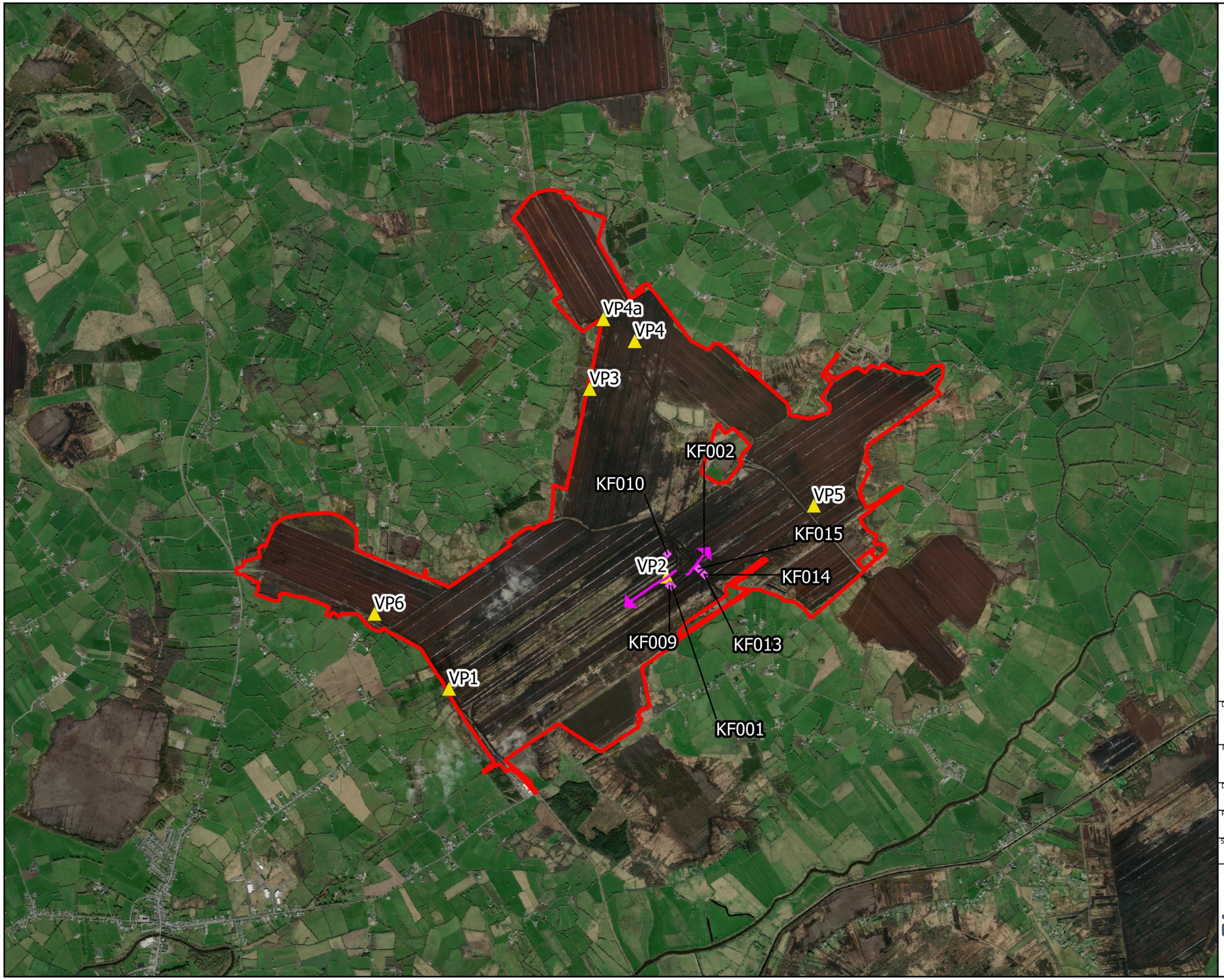
Table 5-4 Kingfisher Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
KF001	Tarraun	27/11/2020	12:14	Kingfisher	1	acid oligotrophic lakes; perched on reeds, fishing	JH
KF002	Knockfin	17/08/2021	14:01	Kingfisher	3	depositing/lowland rivers; flying, came out from under the bridge	JG
KF003	Cloghan Lake	20/09/2021	16:15	Kingfisher	1	other artificial lakes and ponds, scattered tress and parkland and amenity grassland (improved); flight, kingfisher perched on tree on small island in cloghan lake. then flew around island out of sight.	SOB
KF004	Drinagh	10/11/2021	15:21	Kingfisher	1	lakes and ponds; flying/roosting, male observed flying across water body. perched on branch for 1 minute.	CR
KF005	Ballycumber	14/05/2024	09:32	Kingfisher	2	watercourses; flushed	NL
KF006	Kilcolgan Bridge	30/05/2024	12:27	Kingfisher	1	watercourses; flushed	NL
KF007	Turraun Nature Park	11/10/2024	13:52	Kingfisher	1	freshwater marsh; travelling	FOD
KF008	Lough Boora	09/12/2024	12:16	Kingfisher	1	watercourses; fishing	FOD

Table 5-5 Kingfisher Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
KF001	Breeding Raptor Survey; brvp3 - lenanaghan bog north	07/07/2021	16:55	Kingfisher	1	lakes and ponds, improved agricultural grassland and cutover bog; flying	JG
KF002	Waterbird Distribution and Abundance Survey; Cloghan Lake	12/10/2021	12:52	Kingfisher	1	lakes and ponds; flying, flying between the two island lakes.	CR
KF003	Waterbird Distribution and Abundance Survey; Drinagh	09/12/2021	11:35	Kingfisher	1	lakes and ponds; roosting, male perched on reedbeds	CR
KF004	Waterbird Distribution and Abundance Survey; Drinagh	31/08/2022	15:00	Kingfisher	1	turloughs; calling, no sighting but heard calling.	CR
KF005	Waterbird Distribution and Abundance Survey; Ferbane Bridge	15/09/2022	12:10	Kingfisher	1	depositing/lowland rivers; flying	CR
KF006	Waterbird Distribution and Abundance Survey; Noggusduff	15/09/2022	12:53	Kingfisher	1	turloughs; calling	CR
KF007	Waterbird Distribution and Abundance Survey; Drinagh	15/09/2022	14:17	Kingfisher	1	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
KF008	Waterbird Distribution and Abundance Survey; Tumduff	15/09/2022	16:51	Kingfisher	1	lakes and ponds; flying	CR
KF009	Waterbird Distribution and Abundance Survey; Lough Boora	11/11/2022	16:23	Kingfisher	1	lakes and ponds; flying	CR
KF010	Waterbird Distribution and Abundance Survey; Turruan Nature Park	23/11/2022	15:55	Kingfisher	1	lakes and ponds; flying	CR
KF011	Waterbird Distribution and Abundance Survey; Lough Boora	07/12/2022	15:51	Kingfisher	1	lakes and ponds; calling	CR
KF012	Waterbird Distribution and Abundance Survey; Turruan Nature Park	07/12/2022	16:20	Kingfisher	1	lakes and ponds; calling	CR
KF013	Hen Harrier Roost Survey; Turruan Nature Park	26/01/2023	12:21	Kingfisher	1	lakes and ponds; flying	CR
KF014	Waterbird Distribution and Abundance Survey; Noggusduff	26/01/2023	16:39	Kingfisher	1	lakes and ponds; calling	CR
KF015	Waterbird Distribution and Abundance Survey; Turruan Nature Park	08/02/2023	20:08	Kingfisher	1	lakes and ponds; calling	CR
KF016	Waterbird Distribution and Abundance Survey; Drinagh	21/03/2023	14:35	Kingfisher	1	lakes and ponds; flying	CR
KF017	Breeding Woodcock Survey; North of site near VP2.	05/05/2023	21:21	Kingfisher	1	cutover bog; flying	CR
KF018	Waterbird Distribution and Abundance Survey; Noggusduff	09/11/2023	10:32	Kingfisher	1	lakes and ponds; calling	CR
KF021	Waterbird Distribution and Abundance Survey; River Brosna (Ferbane Bridge)	13/03/2024	12:23	Kingfisher	1	depositing/lowland rivers; flying, calling	CR
KF022	Waterbird Distribution and Abundance Survey; River Brosna (Ferbane Bridge)	13/03/2024	12:25	Kingfisher	1	depositing/lowland rivers; flying, calling	CR
KF023	Breeding Raptor Survey; BR9	23/05/2024	12:48	Kingfisher	1	cutover bog; flying, potentially flew from drainage ditch	NL
KF024	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	10:29	Kingfisher	1	drainage ditches and scrub; flying	NL



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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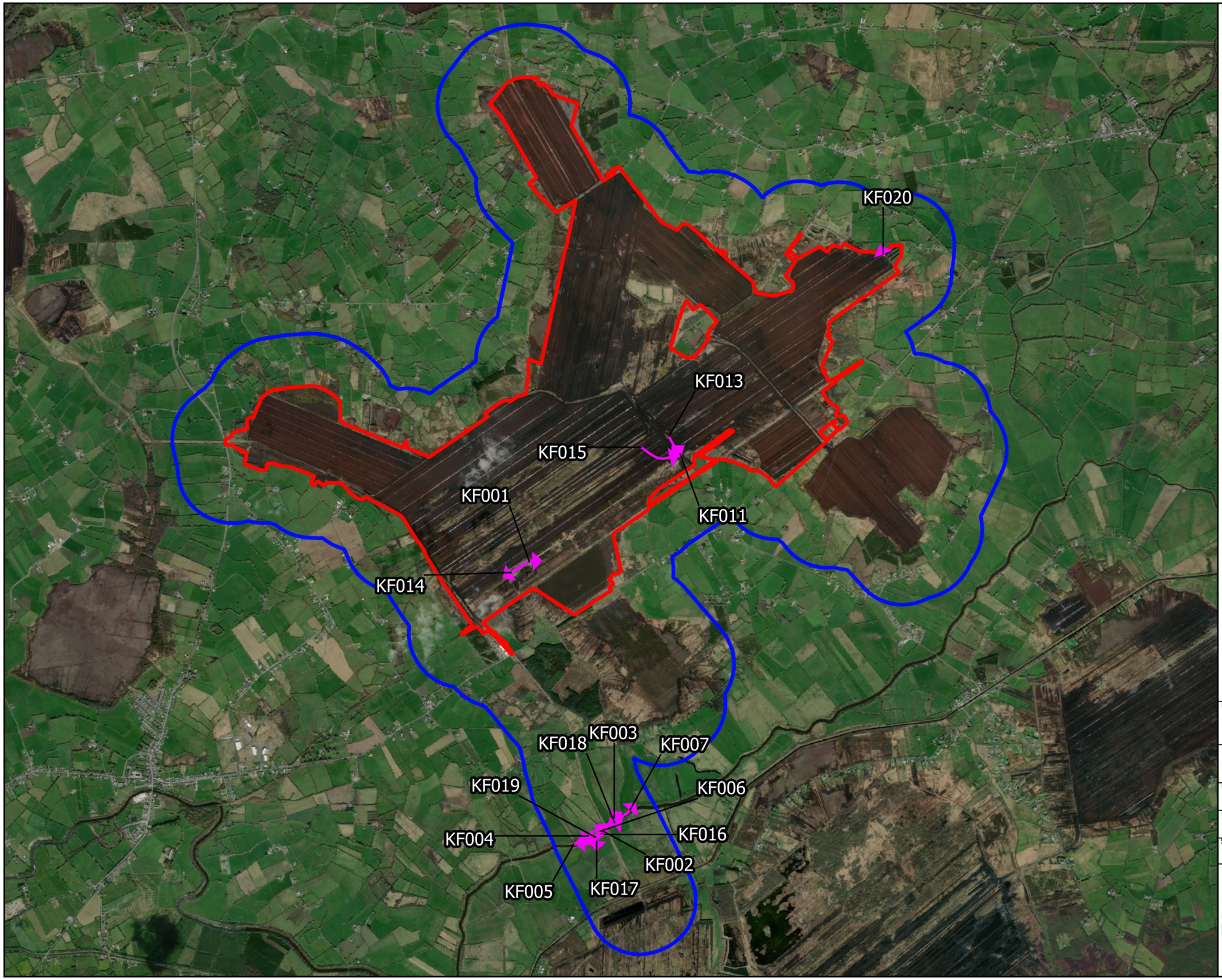
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Drawing Title
Kingfisher Observations
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 5.1
Scale	Date
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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title
Kingfisher Observations
Breeding Walkover Surveys

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Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 5.2
Scale	Date
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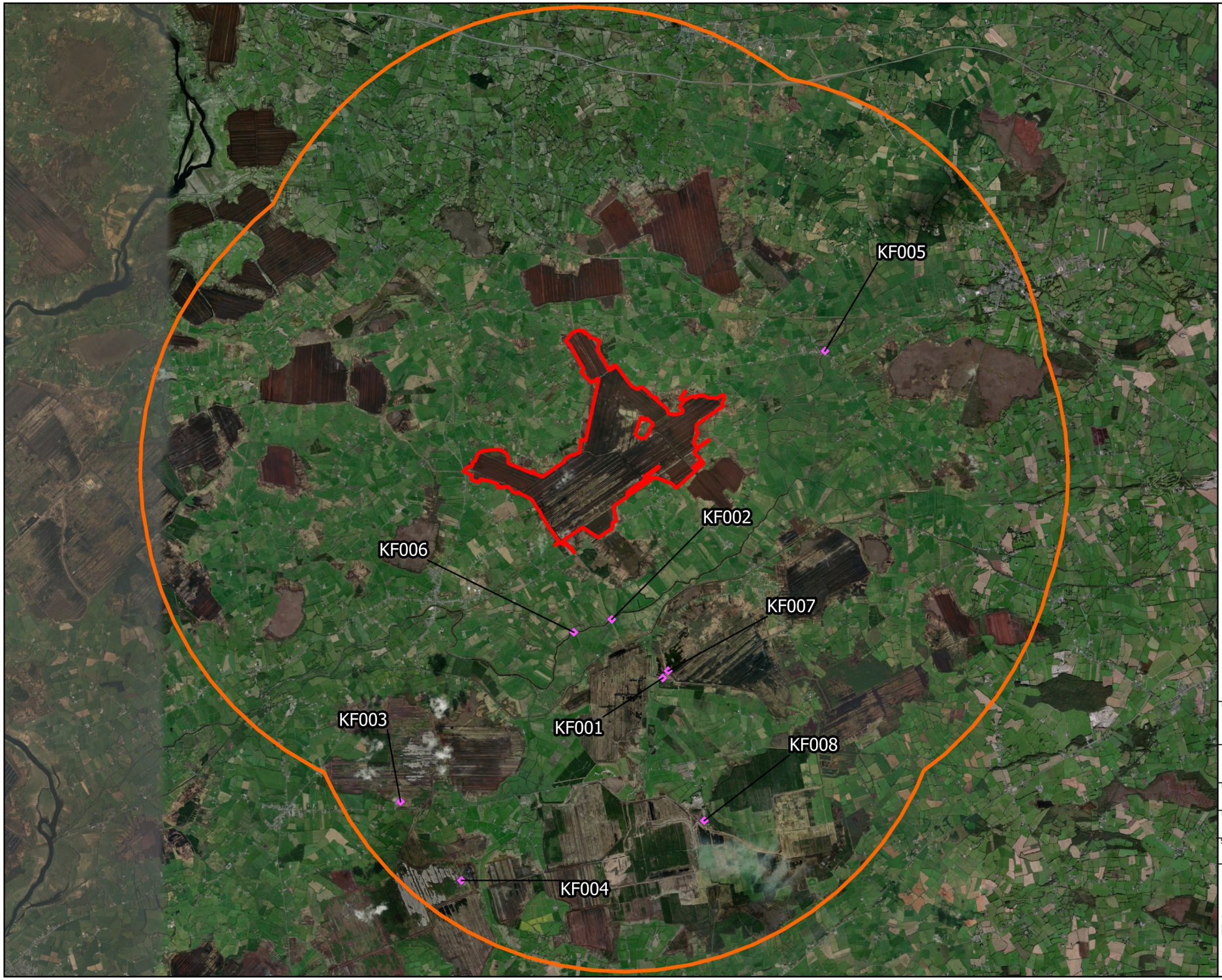
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Drawing Title
Kingfisher Observations
Winter Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 5.3
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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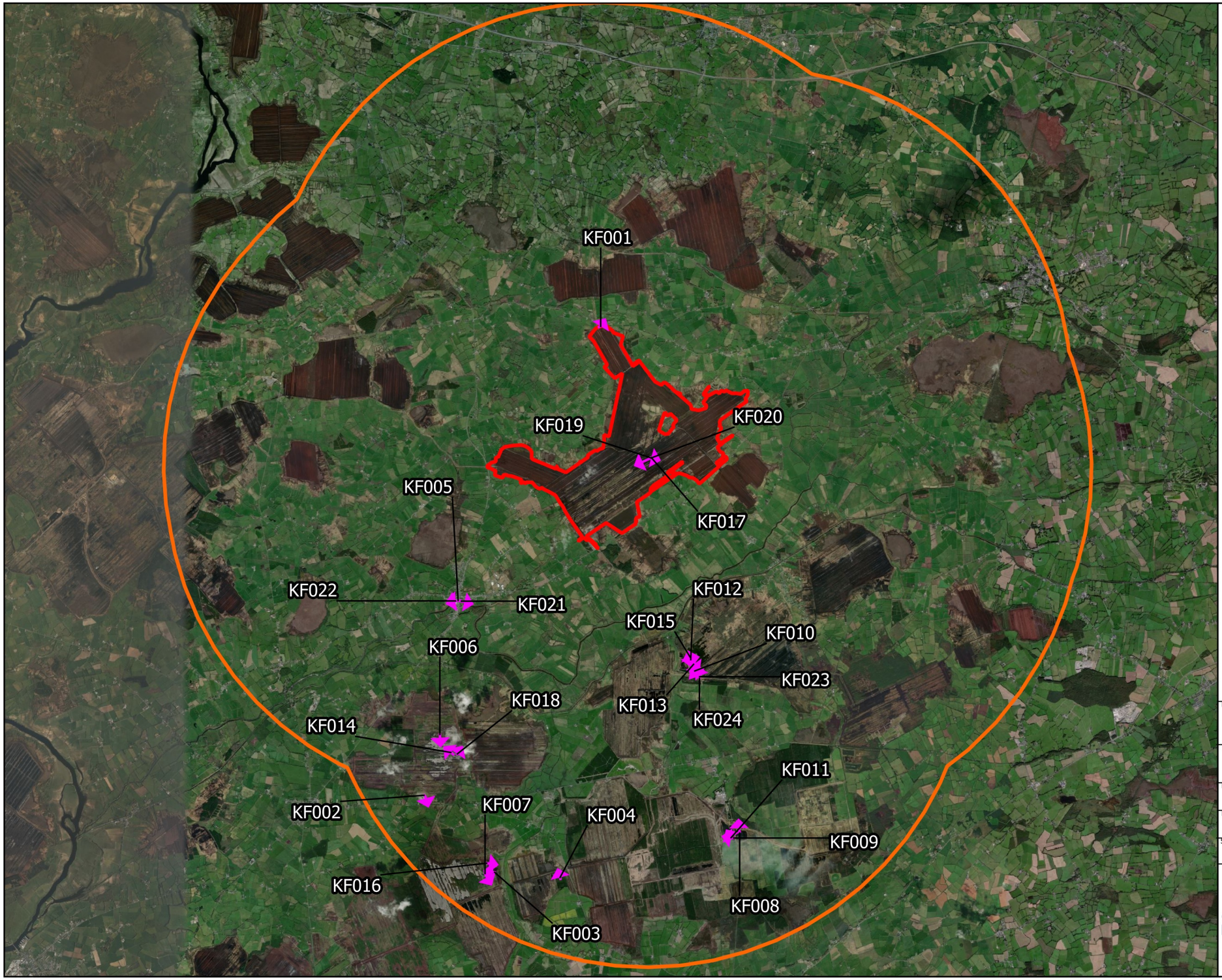
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Drawing Title
Kingfisher Observations
Waterbird Distribution and Abundance Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 5.4
Scale	Date
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Drawing Title

Kingfisher
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 5.5
Scale	Date
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6. LITTLE EGRET

Table 6-1 Little Egret Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
ET001	19/07/2023	16:38	-	Little Egret	1	cutover bog; flying, landed in waterbody behind vp2. (suitable nesting habitat; possible breeder)	CR

Table 6-2 Little Egret Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
ET001	13/10/2022	16:56	-	Little Egret	1	depositing/lowland rivers and improved grassland; flying, heading south. (wintering)	CR
ET002	11/01/2024	13:56	-	Little Egret	1	cutover bog; foraging (wintering)	CR

Table 6-3 Little Egret Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ET001	Noggusduff	21/10/2020	13:49	Little Egret	1	acid oligotrophic lakes and cutover bog; landing on flooded area	JH
ET002	Derrybrat	28/10/2020	12:17	Little Egret	1	cutover bog and acid oligotrophic lakes; foraging, on flooded area	JH
ET003	Derrybrat	27/11/2020	10:55	Little Egret	1	cutover bog and acid oligotrophic lakes; foraging	JH
ET004	Noggusduff	27/11/2020	14:35	Little Egret	1	acid oligotrophic lakes and cutover bog; foraging	JH
ET005	Derrybrat	03/12/2020	10:18	Little Egret	1	acid oligotrophic lakes and cutover bog; foragibg, at edge of flooded area	JH
ET006	Noggusduff	03/12/2020	11:59	Little Egret	1	acid oligotrophic lakes and cutover bog; foraging	JH
ET007	Noggusduff	18/12/2020	11:00	Little Egret	1	acid oligotrophic lakes and cutover bog; foraging	JH
ET008	Noggusduff	18/12/2020	11:03	Little Egret	1	acid oligotrophic lakes and cutover bog; foraging	JH
ET009	Noggusduff	09/02/2021	12:17	Little Egret	2	acid oligotrophic lakes and cutover bog; foraging	JH

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ET010	Tarraun	09/02/2021	13:10	Little Egret	1	acid oligotrophic lakes and scrub; roosting	JH
ET011	Derrybrat	25/02/2021	10:48	Little Egret	1	cutover bog and acid oligotrophic lakes; foraging	JH
ET012	Noggusduff	25/02/2021	11:36	Little Egret	1	acid oligotrophic lakes and cutover bog; foraging	JH
ET013	Derrybrat	15/03/2021	08:25	Little Egret	1	lakes and ponds and swamps; feeding	PT
ET014	Derrybrat	30/03/2021	10:05	Little Egret	1	lakes and ponds; foraging	PT
ET015	Tumduff Mor	30/03/2021	13:10	Little Egret	1	lakes and ponds; roosting	PT
ET016	Noggusduff	18/05/2021	15:43	Little Egret	1	lakes and ponds; feeding beside water	JG
ET017	Derries	01/09/2021	18:20	Little Egret	2	reed and large sedge swamps and dystrophic lakes; flight, 2 little egrets flew out of derries wetlands as i approached	SOB
ET018	Derrybrat	12/10/2021	12:49	Little Egret	1	acid oligotrophic lakes and cutover bog; flying, left the area heading south east.	CR
ET019	Cloghan Lake	27/10/2021	11:24	Little Egret	1	lakes and ponds; flying, left the site heading north.	CR
ET020	Derrybrat	27/10/2021	13:28	Little Egret	1	lakes and ponds; flying, left the site heading south	CR
ET021	Lough Cloghan	10/11/2021	16:10	Little Egret	1	lakes and ponds; flying, observed flying over the lake before heading north west.	CR
ET022	Noggusduff	24/11/2021	09:51	Little Egret	1	lakes and ponds; roosting	CR
ET023	Noggusduff	24/11/2021	10:35	Little Egret	1	lakes and ponds; flying, heading north west.	CR
ET024	Noggusduff	24/11/2021	11:39	Little Egret	1	lakes and ponds and cutover bog; flying, heading south west.	CR
ET025	Noggusduff	09/12/2021	09:52	Little Egret	1	turloughs; flying, left the area heading east.	CR
ET026	Noggusduff	09/12/2021	10:18	Little Egret	1	turloughs; flying, heading south east.	CR
ET027	Drinagh	09/12/2021	11:36	Little Egret	1	turloughs; foraging	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ET028	Tumduff	09/12/2021	14:06	Little Egret	1	lakes and ponds; roosting	CR
ET029	Noggusduff	22/12/2021	10:35	Little Egret	1	lakes and ponds; foraging	CR
ET030	Derrybrat	22/12/2021	12:57	Little Egret	1	lakes and ponds; roosting	CR
ET031	Derrybrat	07/01/2022	12:50	Little Egret	1	lakes and ponds and conifer plantation; flying, heading east.	CR
ET032	Drinagh	07/01/2022	13:39	Little Egret	1	lakes and ponds; foraging	CR
ET033	Noggusduff	07/01/2022	15:52	Little Egret	1	lakes and ponds; flying, heading south east.	CR
ET034	Noggusduff	28/01/2022	10:38	Little Egret	1	lakes and ponds; flying, heading east.	CR
ET035	Noggusduff	28/01/2022	10:42	Little Egret	1	lakes and ponds; flying, heading south	CR
ET036	Noggusduff	28/01/2022	10:51	Little Egret	1	lakes and ponds; flying, heading north east.	CR
ET037	Drinagh	09/02/2022	14:31	Little Egret	1	turloughs and conifer plantation; flying	CR
ET038	Derrybrat	09/02/2022	15:41	Little Egret	1	lakes and ponds and conifer plantation; flying	CR
ET039	Derrybrat	16/03/2022	15:52	Little Egret	1	lakes and ponds; foraging	CR
ET040	Noggusduff	12/04/2022	12:55	Little Egret	1	turloughs; foraging	CR
ET041	Derrybrat	26/04/2022	15:30	Little Egret	1	turloughs; roosting	CR
ET042	Drinagh	26/04/2022	16:12	Little Egret	1	lakes and ponds; hunting	CR
ET043	Tumduff	30/08/2022	16:15	Little Egret	1	lakes and ponds; hunting	CR
ET044	Tumduff	31/08/2022	15:46	Little Egret	1	lakes and ponds; in the water	CR
ET045	Turraun Nature Park	31/08/2022	17:44	Little Egret	2	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ET046	Cloghan Lake	15/09/2022	13:33	Little Egret	1	cutover bog; flying	CR
ET047	Tumduff	12/10/2022	15:34	Little Egret	1	lakes and ponds; foraging	CR
ET048	Tumduff	12/10/2022	15:45	Little Egret	2	lakes and ponds; roosting	CR
ET049	Turraun Nature Park	27/10/2022	12:41	Little Egret	1	lakes and ponds; foraging	CR
ET050	Tumduff	27/10/2022	13:17	Little Egret	1	improved grassland; foraging in field	CR
ET051	Derrybrat	27/10/2022	15:01	Little Egret	1	lakes and ponds and highly modified/non-native woodland; flying	CR
ET052	Noggusduff	11/11/2022	11:45	Little Egret	2	turloughs; foraging	CR
ET053	Turraun Nature Park	07/12/2022	16:45	Little Egret	1	lakes and ponds; flying	CR
ET054	Tumduff	26/01/2023	13:32	Little Egret	1	lakes and ponds; foraging	CR
ET055	Noggusduff	26/01/2023	16:49	Little Egret	1	lakes and ponds; flying	CR
ET056	Tumduff	08/02/2023	13:54	Little Egret	1	lakes and ponds; foraging	CR
ET057	Derrybrat	08/02/2023	15:18	Little Egret	2	lakes and ponds; flying	CR
ET058	Tumduff	21/02/2023	10:35	Little Egret	1	lakes and ponds; flying	CR
ET059	Noggusduff	21/02/2023	14:50	Little Egret	3	lakes and ponds; flying	CR
ET060	Noggusduff	07/03/2023	11:02	Little Egret	2	lakes and ponds; flying	CR
ET061	Noggusduff	12/04/2023	13:34	Little Egret	1	lakes and ponds; flying	CR
ET062	Derrybrat	09/11/2023	12:59	Little Egret	3	lakes and ponds and cutover bog; flying	CR
ET063	Derrybrat	23/11/2023	16:16	Little Egret	6	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ET064	Derrybrat	08/12/2023	12:16	Little Egret	2	cutover bog; foraging	CR
ET065	Derrybrat	21/12/2023	14:15	Little Egret	3	cutover bog and lakes and ponds; flying	CR
ET066	Tumduff	21/12/2023	15:06	Little Egret	1	lakes and ponds; flying	CR
ET067	Derrybrat	03/01/2024	14:14	Little Egret	1	lakes and ponds; foraging	CR
ET068	Tumduff	03/01/2024	15:24	Little Egret	1	lakes and ponds; foraging	CR
ET069	Derrybrat	18/01/2024	14:45	Little Egret	2	lakes and ponds; flying	CR
ET070	Drinagh	30/01/2024	13:33	Little Egret	1	lakes and ponds; foraging	#REF!
ET071	Noggusduff	12/02/2024	12:28	Little Egret	1	lakes and ponds; flying	#REF!
ET072	Derrybrat	12/02/2024	13:39	Little Egret	1	lakes and ponds; foraging	#REF!
ET073	Derrybrat	12/02/2024	13:57	Little Egret	3	lakes and ponds; foraging	#REF!
ET074	Derrybrat	27/02/2024	12:47	Little Egret	2	lakes and ponds; resting	CR
ET075	Lough Boora	24/09/2024	12:24	Little Egret	2	lakes and ponds; roosting, foraging	NL
ET076	Turraun Nature Park	07/01/2025	13:30	Little Egret	1	lakes and ponds; flying	ZE
ET077	Noggusduff	06/02/2025	12:05	Little Egret	1	swamps and lakes and ponds; flying, landed	ZE
ET078	Derrybrat	06/02/2025	13:27	Little Egret	1	swamps, cutover bog and lakes and ponds; foraging	ZE
ET079	Noggusduff	19/02/2025	15:22	Little Egret	1	swamps and lakes and ponds; flying	ZE
ET080	Derrybrat	20/03/2025	13:56	Little Egret	4	swamps, lakes and ponds and cutover bog; foraging	ZE
ET081	Tumduff	20/03/2025	14:59	Little Egret	1	lakes and ponds and swamps; preening	ZE



Map Legend

Application Site Boundary

Flight Observation

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Drawing Title

Little Egret Observations
Breeding Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 6.1
Scale	Date
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Map Legend

Application Site Boundary

Survey Area

Flight Observation

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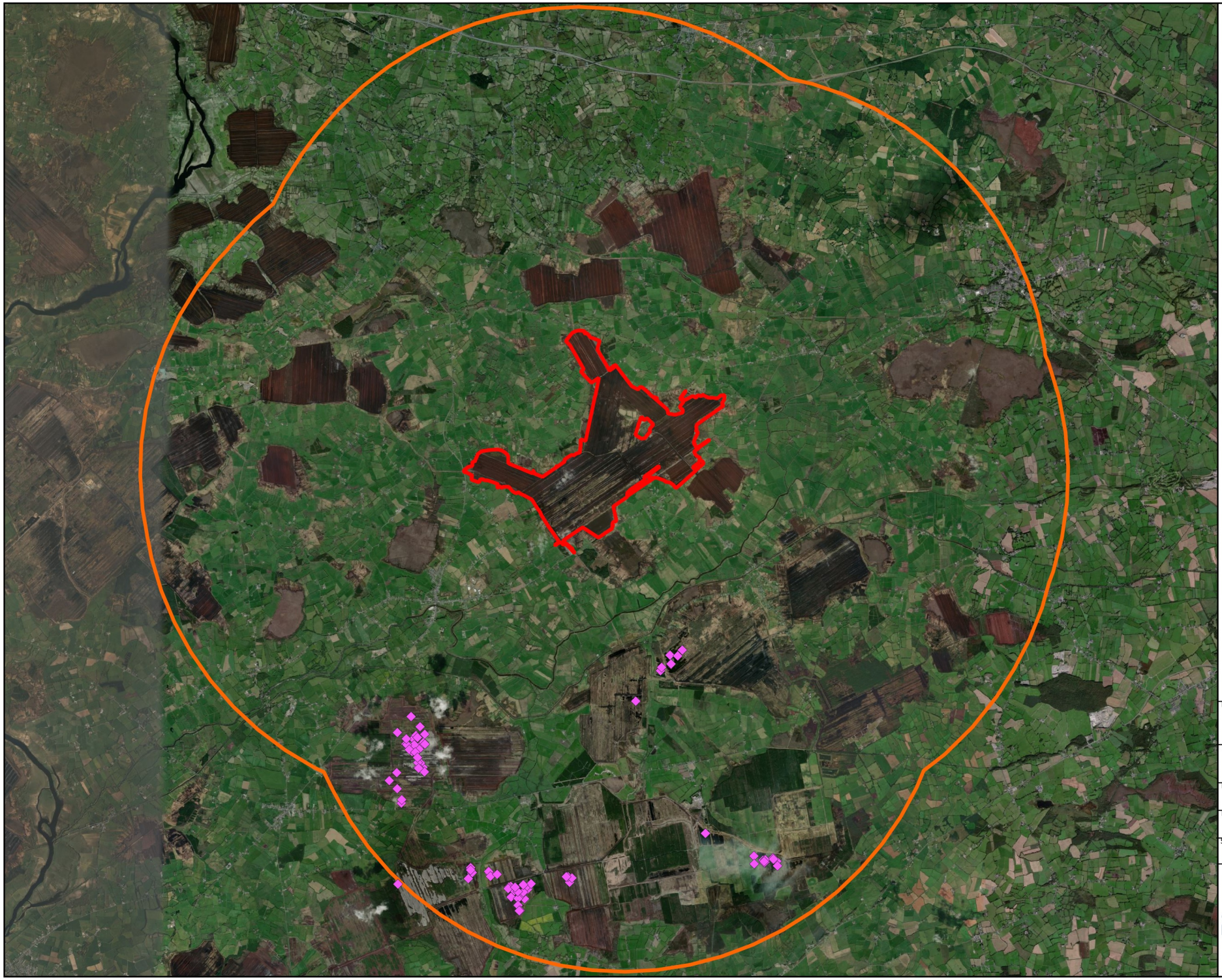
Little Egret Observations
Winter Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 6.2
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Map Legend

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Observations of Little Egret form Waterbird Distribution and Abundance Surveys have been further divided across the following Figures in order to improve readability:

- Figure 6-3a – Little Egret Waterbird and Distribution Survey Data Winter Season 2020/21
- Figure 6-3b – Little Egret Waterbird and Distribution Survey Data Winter Season 2022/22
- Figure 6-3c – Little Egret Waterbird and Distribution Survey Data Winter Season 2022/23
- Figure 6-3d – Little Egret Waterbird and Distribution Survey Data Winter Season 2023/24
- Figure 6-3e – Little Egret Waterbird and Distribution Survey Data Winter Season 2024/25



Map Legend

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- Observation

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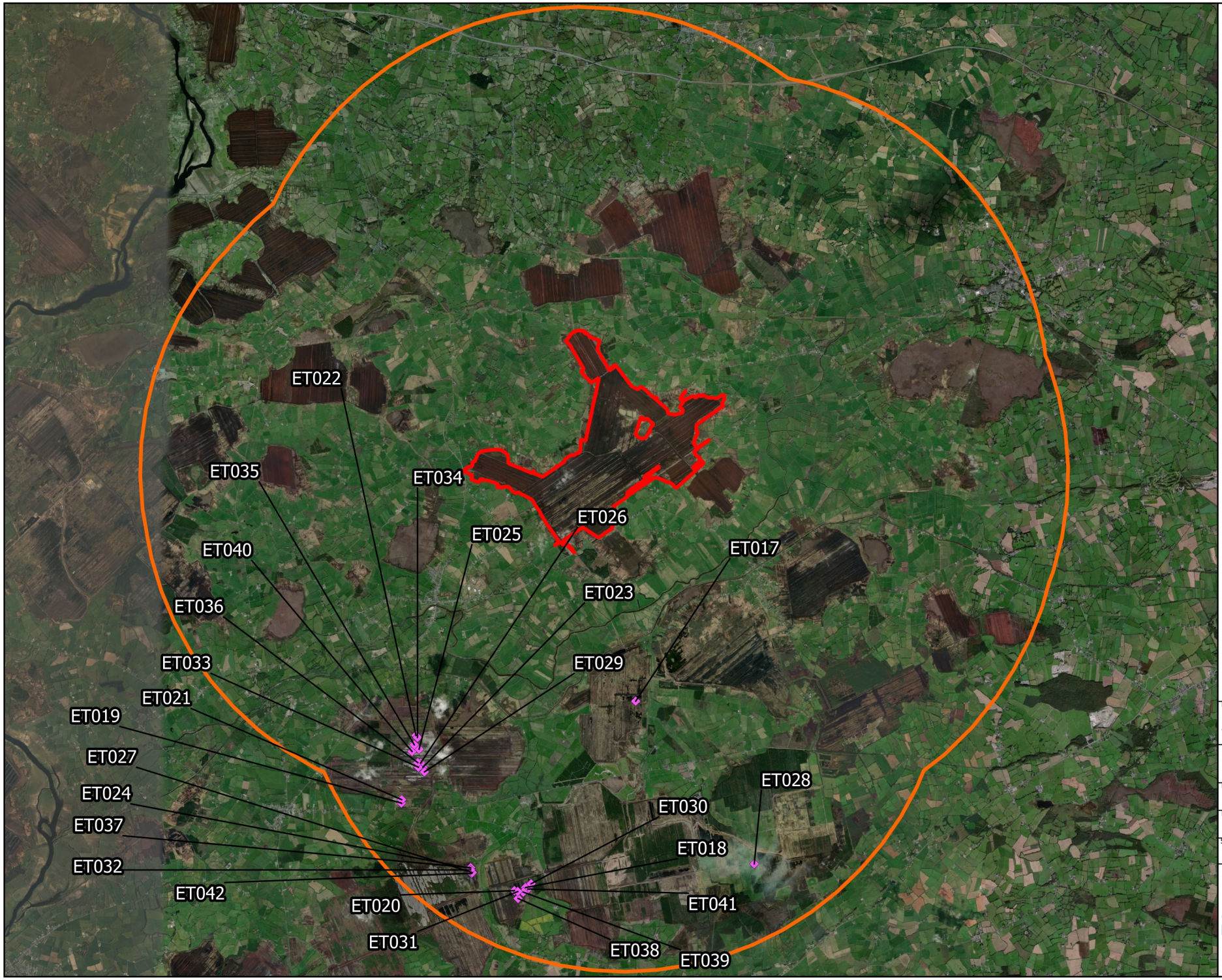
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Waterbird Distribution and Abundance Surveys

Project Title

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Project No.	Drawing No.
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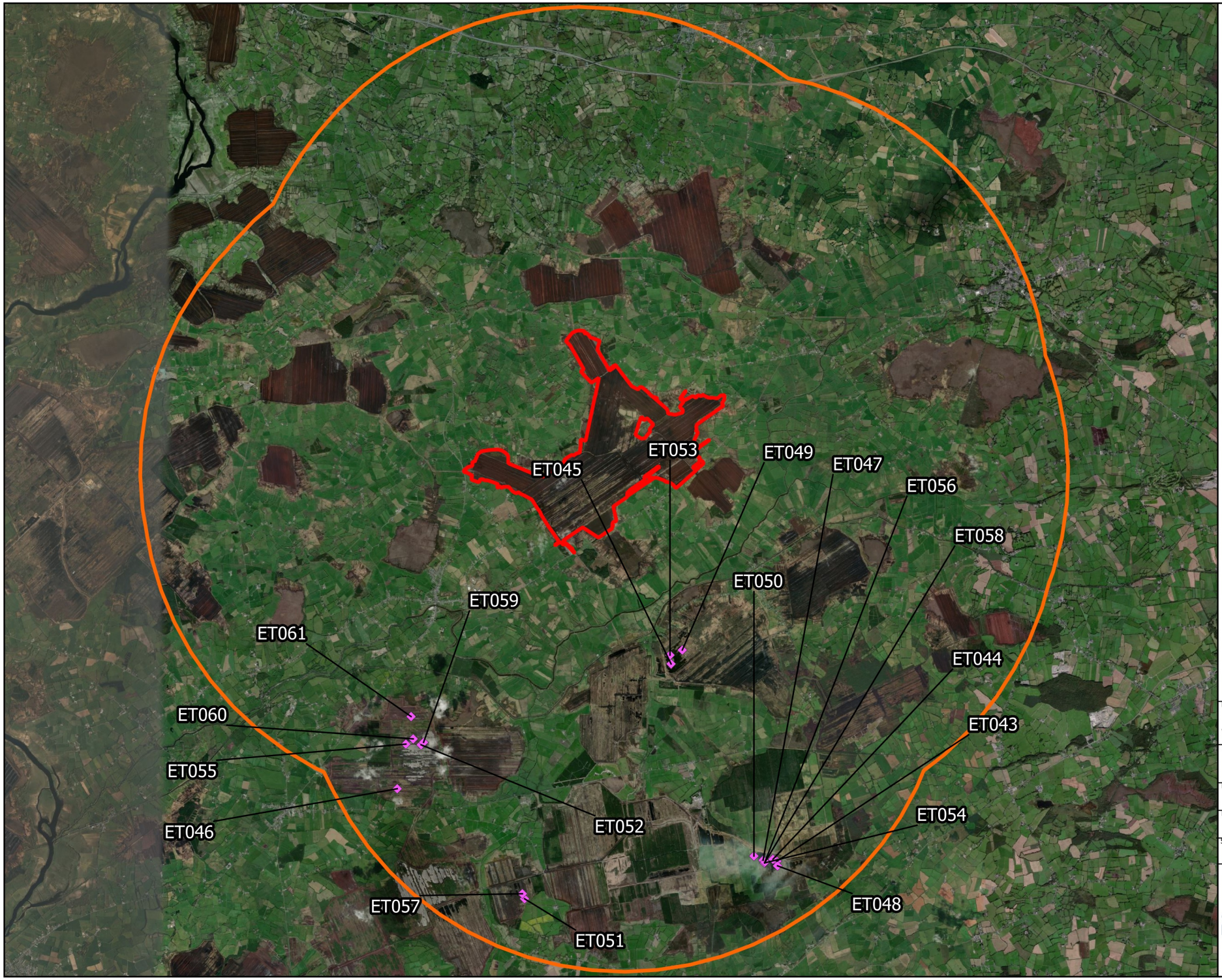
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Waterbird Distribution and Abundance Surveys

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Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 6.3b
Scale	Date
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- 8km Survey Radius
- Observation

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Drawing Title: Little Egret Observations Winter 2022/23 Waterbird Distribution and Abundance Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 6.3c
Scale	Date
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Little Egret Observations Winter 2023/24
Waterbird Distribution and Abundance Surveys

Project Title

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Project No.	Drawing No.
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Drawing Title

Little Egret Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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7. MERLIN

Table 7-1 Merlin Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
ML001	VP4	12/11/2020	12:13	Merlin	1	38	38	0	0	0	cutover bog; hunting. male, landing on cutaway	JH
ML002	VP4	12/11/2020	12:19	Merlin	1	40	40	0	0	0	cutover bog and scrub; travelling, disappearing into scrub. male	JH
ML003	VP5	23/11/2020	13:20	Merlin	1	35	15	20	0	0	cutover bog and scrub; hunting, chasing meadow pipit	JH
ML004	VP5	12/01/2021	12:25	Merlin	1	22	22	0	0	0	cutover bog; travelling, landing on cutaway	JH
ML005	VP5	12/01/2021	12:27	Merlin	1	8	8	0	0	0	cutover bog; travelling, flying on	JH
ML006	VP5	17/02/2021	14:09	Merlin	1	22	22	0	0	0	cutover bog and scrub; travelling, disappearing into scrub. female	JH
ML007	VP6	22/02/2021	13:59	Merlin	1	30	30	0	0	0	cutover bog and scrub; travelling, female disappearing into scrub	JH
ML008	VP6	26/02/2021	10:31	Merlin	1	25	25	0	0	0	cutover bog and scrub; travelling, female. disappearing behind treeline	JH
ML009	VP2	20/08/2021	18:41	Merlin	1	3	3	0	0	0	cutover bog and drainage ditches; flight,, merlin disturbed by kestrel took off and perched nearby.	SOB
ML010	VP2	20/08/2021	18:47	Merlin	1	-	-	-	-	-	cutover bog and drainage ditches; preening, perched, male merlin perched on clay mound preening itself near where kestrel was perched for 5 minutes.	SOB
ML011	VP2	20/08/2021	18:50	Merlin	1	15	15	0	0	0	cutover bog, scrub and treelines; flight, male merlin flew off of perched location heading towards bord na mona sheds and trees behind.	SOB
ML012	VP6	13/12/2021	10:09	Merlin	1	13	13	0	0	0	cutover bog; flying, female observed mobbing male kestrel before leaving the area heading north west.	CR
ML013	VP4	25/02/2022	11:48	Merlin	1	108	108	0	0	0	cutover bog; flying	NS
ML014	VP4	19/04/2022	07:46	Merlin	1	36	36	0	0	0	cutover bog; flying	NS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
ML015	VP4	19/04/2022	11:24	Merlin	1	6	6	0	0	0	cutover bog; flying	NS
ML016	VP6	13/12/2022	11:50	Merlin	1	57	57	0	0	0	cutover bog; flying, female merlin last seen heading north.	CR
ML017	VP6	13/12/2022	12:36	Merlin	1	42	42	0	0	0	cutover bog and improved grassland; flying, female observed flying until landing on post.	CR
ML018	VP6	13/12/2022	12:47	Merlin	1	18	18	0	0	0	cutover bog; flying	CR
ML019	VP6	17/01/2023	16:58	Merlin	1	136	0	0	136	0	improved grassland; flying, female observed heading north west.	CR
ML020	VP2	24/02/2023	12:31	Merlin	1	43	3	40	0	0	cutover bog; flying, female last seen heading north-east.	CR
ML021	VP6	29/11/2023	12:27	Merlin	1	24	24	0	0	0	cutover bog and improved grassland; hunting, female	CR
ML022	VP1	30/11/2023	11:33	Merlin	1	43	6	15	22	0	cutover bog; flying, female	CR
ML023	VP6	07/01/2025	13:27	Merlin	1	10	10	0	0	0	lowland blanket bog; travelling	CC
ML024	VP1	11/03/2025	10:17	Merlin	1	5	5	0	0	0	improved agricultural grassland, cutover bog and linear woodland/scrub; calling, flying, heard first, then saw; pair of buzzards appeared from the same area at the same time	ZE

Table 7-2 Merlin Breeding Raptor Survey Data

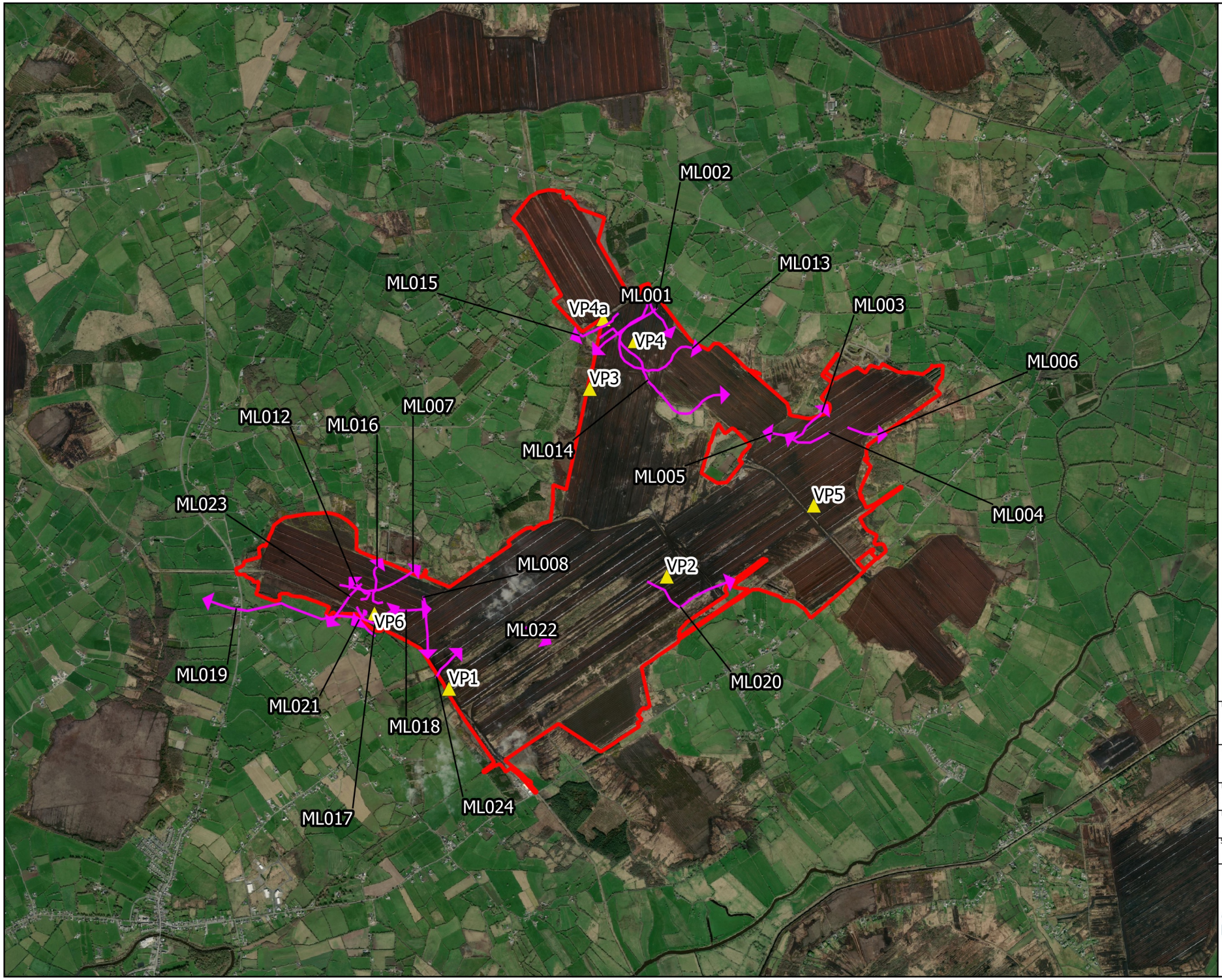
Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
ML001	BR4	05/04/2022	15:13	Merlin	1	cutover bog and highly modified/non-native woodland, flying, female bird heading south.	suitable nesting habitat; possible breeder	CR
ML002	BR12	04/07/2024	14:19	Merlin	1	highly modified/non-native woodland, improved agricultural grassland and scrub, flying, hunting, female	suitable nesting habitat; possible breeder	NL

Table 7-3 Merlin Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
ML001	22/02/2022	10:24	-	Merlin	1	cutover bog; flying, female bird observed heading south west. (wintering)	CR
ML002	30/01/2023	15:40	-	Merlin	2	cutover bog; flying, brief sighting; one bird identified as a male. (wintering)	CR

Table 7-4 Merlin Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
ML001	Hen Harrier Roost Survey; HHVP1	17/12/2020	15:44	Merlin	1	upland blanket bog and conifer plantation; hunting, hunting and flying low across the raised bog	JH
ML002	Waterbird Distribution and Abundance Survey; Boora	09/02/2021	13:36	Merlin	1	improved agricultural grassland; travelling, male	JH
ML003	Waterbird Distribution and Abundance Survey; Derrybrat	15/03/2021	11:00	Merlin	1	grassland and marsh, bog woodland and lakes and ponds; perched, female/immature, beside railway line. all three observations on map refer to 1 individual	PT
ML004	Waterbird Distribution and Abundance Survey; Tumduff	09/12/2021	14:05	Merlin	1	lakes and ponds and highly modified/non-native woodland; flying, male bird observed heading south.	CR
ML005	Waterbird Distribution and Abundance Survey; Finnamore Lakes	22/12/2021	15:48	Merlin	1	highly modified/non-native woodland and lakes and ponds; flying, male bird observed heading east.	CR
ML006	Waterbird Distribution and Abundance Survey; Drinagh	11/11/2022	13:10	Merlin	1	lakes and ponds; flying, male heading east.	CR
ML007	Hen Harrier Roost Survey; HHVP5	16/01/2023	16:23	Merlin	1	improved grassland and cutover bog; flying, female heading west.	CR
ML008	Waterbird Distribution and Abundance Survey; Tumduff	21/02/2023	10:23	Merlin	1	improved grassland; flying, male	CR
ML009	Hen Harrier Roost Survey; HHVP2	12/03/2024	18:41	Merlin	1	cutover bog; flying	CR
ML010	Hen Harrier Roost Survey; HHVP6	30/10/2024	16:01	Merlin	1	lowland blanket bog; travelling	CC



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title

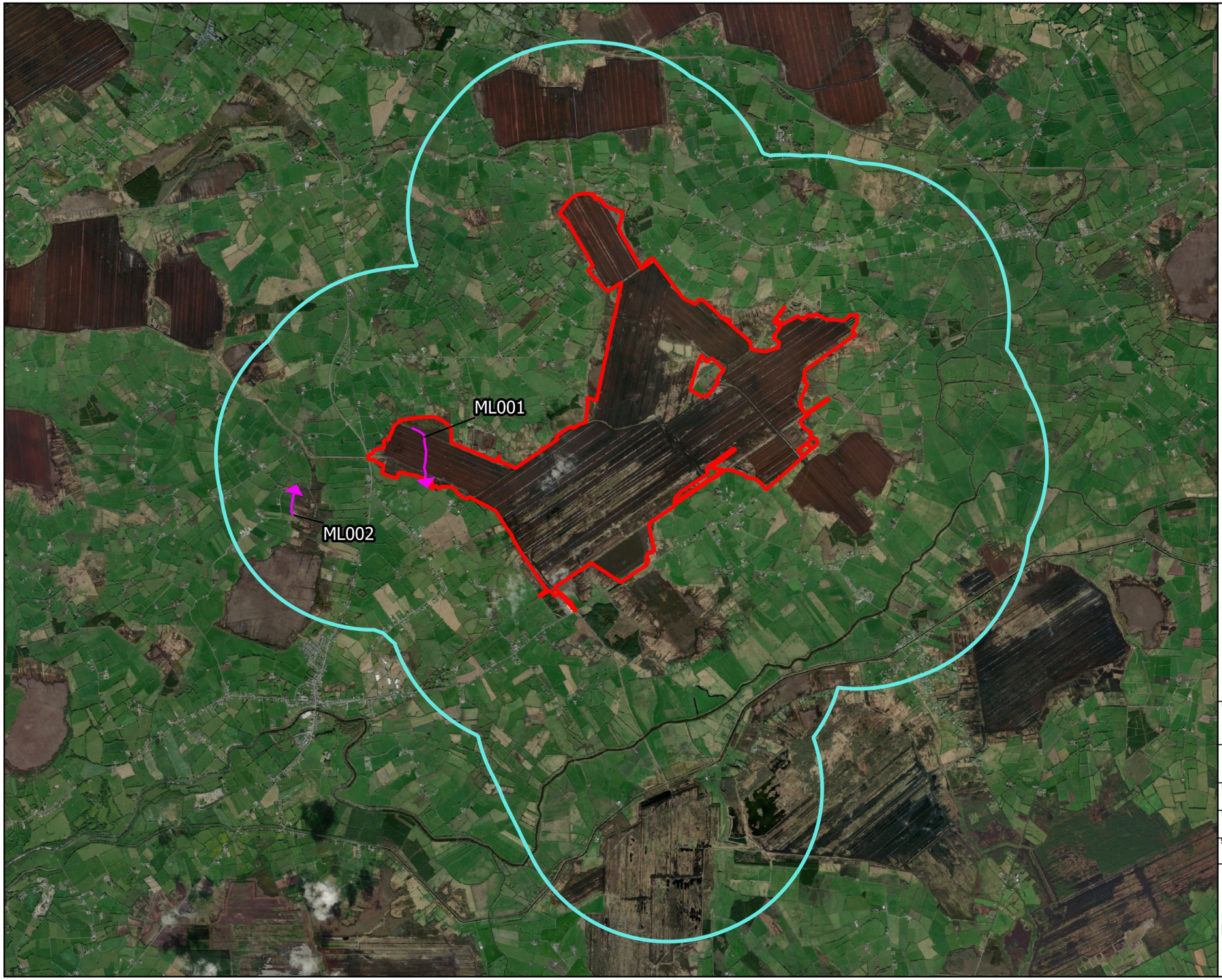
Merlin Observations
Vantage Point Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 7.1
Scale	Date
1:45,000	17.07.2025

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Map Legend

Application Site Boun

Survey Area

Flight Observation

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Drawing Title

Merlin Observations
Breeding Raptor Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 7.2
Scale	Date
1:65,000	17.07.2025

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Map Legend

Application Site Boundary

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Drawing Title

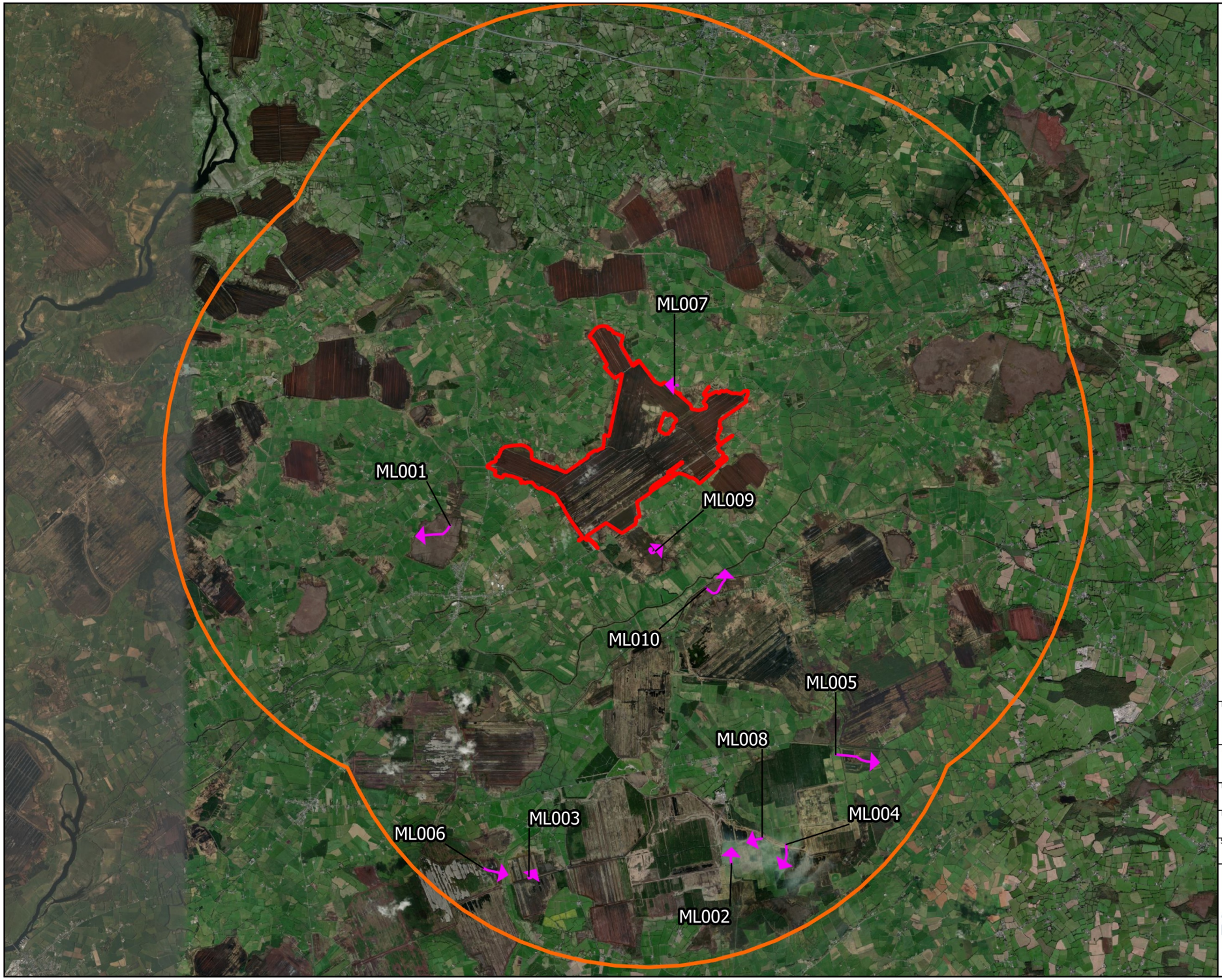
Merlin Observations
Winter Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 7.3
Scale	Date
1:35,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title
Merlin
Incidental Records

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 7.4
Scale	Date
1:122,000	17.07.2025

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8. PEREGRINE

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 8-1 Peregrine Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
PE001	VP 4	15/12/2020	14:47	Peregrine Falcon	1	15	15	0	0	0	cutover bog; travelling, perched on peat pile and flying low across cutaway	JH
PE002	VP 4	15/12/2020	13:17	Peregrine Falcon	1	130	130	0	0	0	cutover bog and conifer plantation; hunting, mobbing male hen harrier	JH
PE003	VP 1	15/01/2021	12:03	Peregrine Falcon	1	20	0	20	0	0	cutover bog; travelling	JH
PE004	VP 1	15/01/2021	12:07	Peregrine Falcon	1	35	35	0	0	0	cutover bog and scrub; gliding low over cutaway, possibly landing on cutaway	JH
PE005	VP 4	26/01/2021	12:52	Peregrine Falcon	1	64	0	64	0	0		JH
PE006	VP 4	16/02/2021	14:07	Peregrine Falcon	1	38	0	38	0	0	cutover bog and conifer plantation; travelling, disappearing from view behind wd4	JH
PE007	VP 6	26/02/2021	10:04	Peregrine Falcon	1	-	-	-	-	-	cutover bog; perched on peat pile	JH
PE008	VP 6	26/02/2021	10:36	Peregrine Falcon	1	76	10	10	56	0	cutover bog and scrub; circling and flying on	JH
PE009	VP 2	18/03/2021	17:26	Peregrine Falcon	1	15	15	0	0	0	cutover bog; direct flight, immature	PT
PE010	VP 1	01/11/2021	11:52	Peregrine Falcon	1	29	29	0	0	0	cutover bog; flying, observed heading west before landing on a conifer tree.	CR
PE011	VP 2	22/02/2022	12:11	Peregrine Falcon	1	15	15	0	0	0	cutover bog; flying, bombed ringtail	NS
PE012	VP 1	14/03/2022	14:40	Peregrine Falcon	1	48	0	48	0	0	cutover bog; flying	NS
PE013	VP 1	09/08/2022	15:27	Peregrine Falcon	1	420	0	0	60	360	cutover bog, scrub and improved grassland; soaring, adult heading last seen heading west.	CR
PE014	VP 1	09/08/2022	17:41	Peregrine Falcon	1	214	0	0	64	150	cutover bog and scrub; flying, heading north east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
PE015	VP 2	20/10/2022	09:47	Peregrine Falcon	2	333	100	45	188	0	cutover bog and highly modified/non-native woodland; flying, pair observed interacting with each other. last seen heading north east.	CR
PE016	VP 3	14/11/2022	16:40	Peregrine Falcon	1	44	0	44	0	0	cutover bog, scrub and improved grassland; flying, adult peregrine falcon heading north. observed disappearing behind trees.	CR
PE017	VP 3	14/11/2022	16:44	Peregrine Falcon	1	17	5	12	0	0	scrub; hunting, observed chasing wood pigeons.	CR
PE018	VP 3	14/11/2022	16:47	Peregrine Falcon	1	63	21	27	15	0	scrub and improved grassland; hunting, chasing wood pigeons. last seen heading north.	CR
PE019	VP 4	06/12/2022	13:33	Peregrine Falcon	1	259	0	25	124	110	cutover bog; flying, last seen at high altitude heading south.	CR
PE020	VP 6	14/02/2023	09:16	Peregrine Falcon	1	126	11	13	102	0	improved grassland and highly modified/non-native woodland; hunting, juvenile hunting woodpigeons. last seen heading north at low altitude.	CR
PE021	VP 6	10/05/2023	19:48	Peregrine Falcon	1	225	0	0	189	36	cutover bog; soaring, soaring at high altitude before disappearing into thick cloud. mobbed by kestrel.	CR
PE022	VP 2	16/05/2023	19:52	Peregrine Falcon	1	50	25	25	0	0	cutover bog; hunting, juvenile bird observed hunting lapwing.	CR
PE023	VP 5	27/02/2024	12:39	Peregrine Falcon	1	416	0	16	250	150	scrub/transitional woodland, mixed broadleaved/conifer woodland and improved agricultural grassland; flying, soaring, female	JD
PE024	VP 3	21/03/2024	09:42	Peregrine Falcon	1	55	2	5	48	0	cutover bog and scrub/transitional woodland; flying	CR
PE025	VP 3	21/03/2024	09:44	Peregrine Falcon	2	199	15	35	79	70	cutover bog, improved grassland and scrub/transitional woodland; flying, calling	CR

Table 8-2 Peregrine Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
PE001	12/07/2022	15:51	-	Peregrine Falcon	1	cutover bog, active quarries and mines and conifer plantation; calling, heard calling (suitable nesting habitat; possible breeder)	CR
PE002	12/07/2022	15:55	-	Peregrine Falcon	2	conifer plantation, cutover bog and active quarries and mines; flying, pair observed heading west. also heard calling. (pair; probable breeding)	CR
PE003	10/05/2023	18:50	-	Peregrine Falcon	1	cutover bog; flying, juvenile observed carrying prey. (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
PE004	28/05/2024	07:55	T2	Peregrine Falcon	1	bogs; mobbed, mobbed by hooded crow. lost behind trees on horizon. (flyover; non-breeding)	PDC
PE005	29/05/2024	06:35	T3	Peregrine Falcon	1	bogs and semi-natural woodland; travelling (suitable nesting habitat; possible breeder)	PDC
PE006	29/05/2024	10:01	T3	Peregrine Falcon	1	semi-natural woodland and bogs; travelling, lost behind trees (suitable nesting habitat; possible breeder)	PDC

Table 8-3 Peregrine Breeding Raptor Survey Data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
PE001	BR3	11/07/2022	19:12	Peregrine Falcon	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR

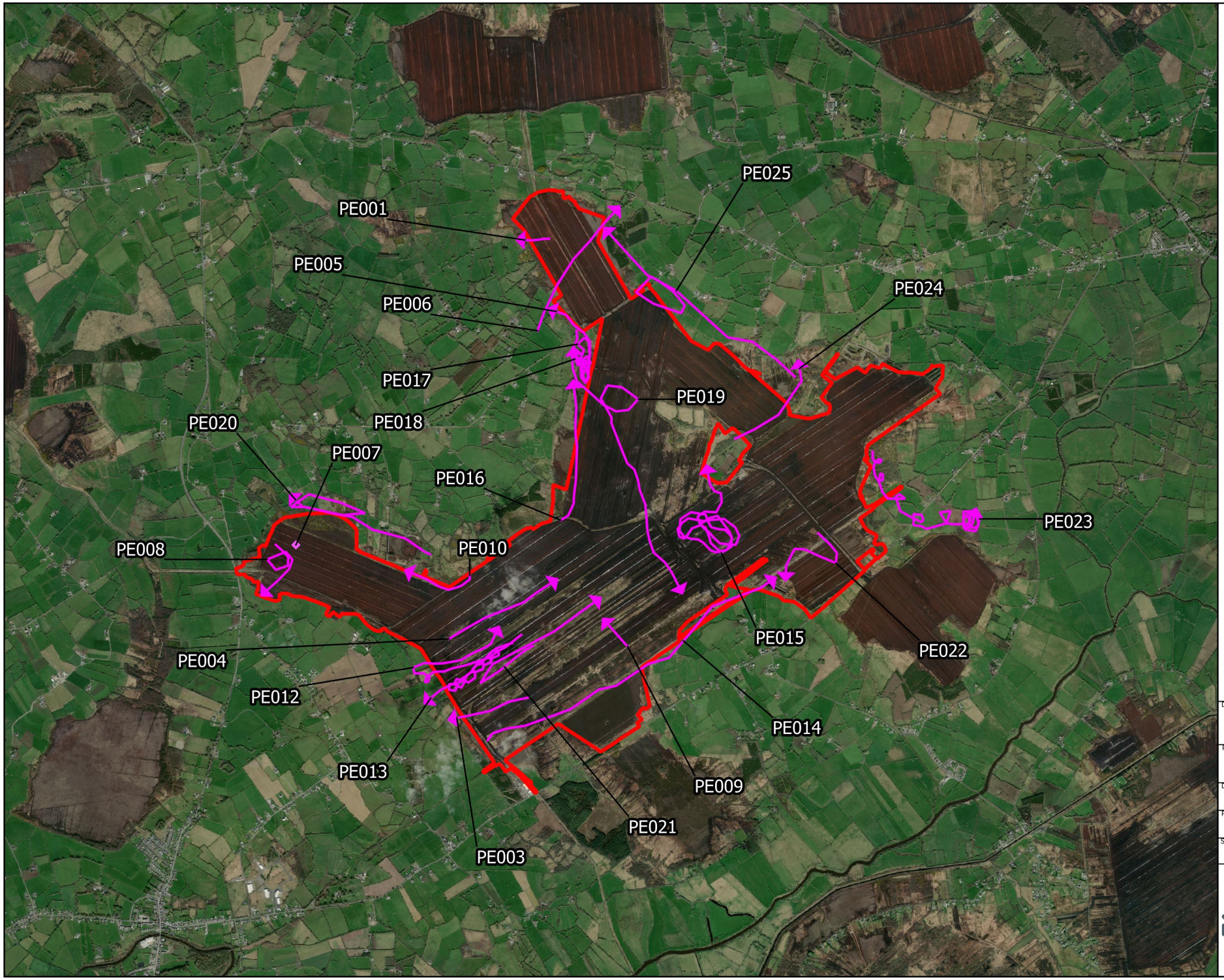
Table 8-4 Peregrine Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
PE001	18/01/2022	14:00	-	Peregrine Falcon	1	cutover bog and scrub; flying, observed heading north west. (wintering)	CR
PE002	22/11/2022	15:00	-	Peregrine Falcon	1	cutover bog; flying, adult bird heading north. (wintering)	CR
PE003	18/01/2023	13:38	-	Peregrine Falcon	1	cutover bog and highly modified/non-native woodland; flying, juvenile last seen heading north west. mobbed by kestrel. (wintering)	CR
PE004	30/01/2023	14:28	-	Peregrine Falcon	1	cutover bog, conifer plantation and improved grassland; flying, juvenile heading north west. (wintering)	CR

Table 8-5 Peregrine Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
PE001	Waterbird Distribution and Abundance Survey; Lumcloon	15/03/2021	11:35	Peregrine Falcon	1	cutover bog, grassland and marsh and conifer plantation; direct flight, circled briefly	PT
PE002	Waterbird Distribution and Abundance Survey; Noggus	30/03/2021	11:00	Peregrine Falcon	1	lakes and ponds; prolonged circling, hunting, juvenile	PT
PE003	Breeding Woodcock Survey; VP6	06/06/2023	21:31	Peregrine Falcon	1	improved grassland and cutover bog; flying, juvenile	CR
PE004	Waterbird Distribution and Abundance Survey; Derrybrat	06/10/2023	15:01	Peregrine Falcon	1	lakes and ponds, cutover bog and highly modified/non-native woodland; flying	CR
PE005	Vantage Point Survey; VP3	21/03/2024	09:54	Peregrine Falcon	1	highly modified/non-native woodland and cutover bog; mobbing	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
PE006	Waterbird Distribution and Abundance Survey; Lough boora	17/12/2024	13:34	Peregrine Falcon	1	improved agricultural grassland; carrying prey, peregrine carrying lapwing	FOD



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title

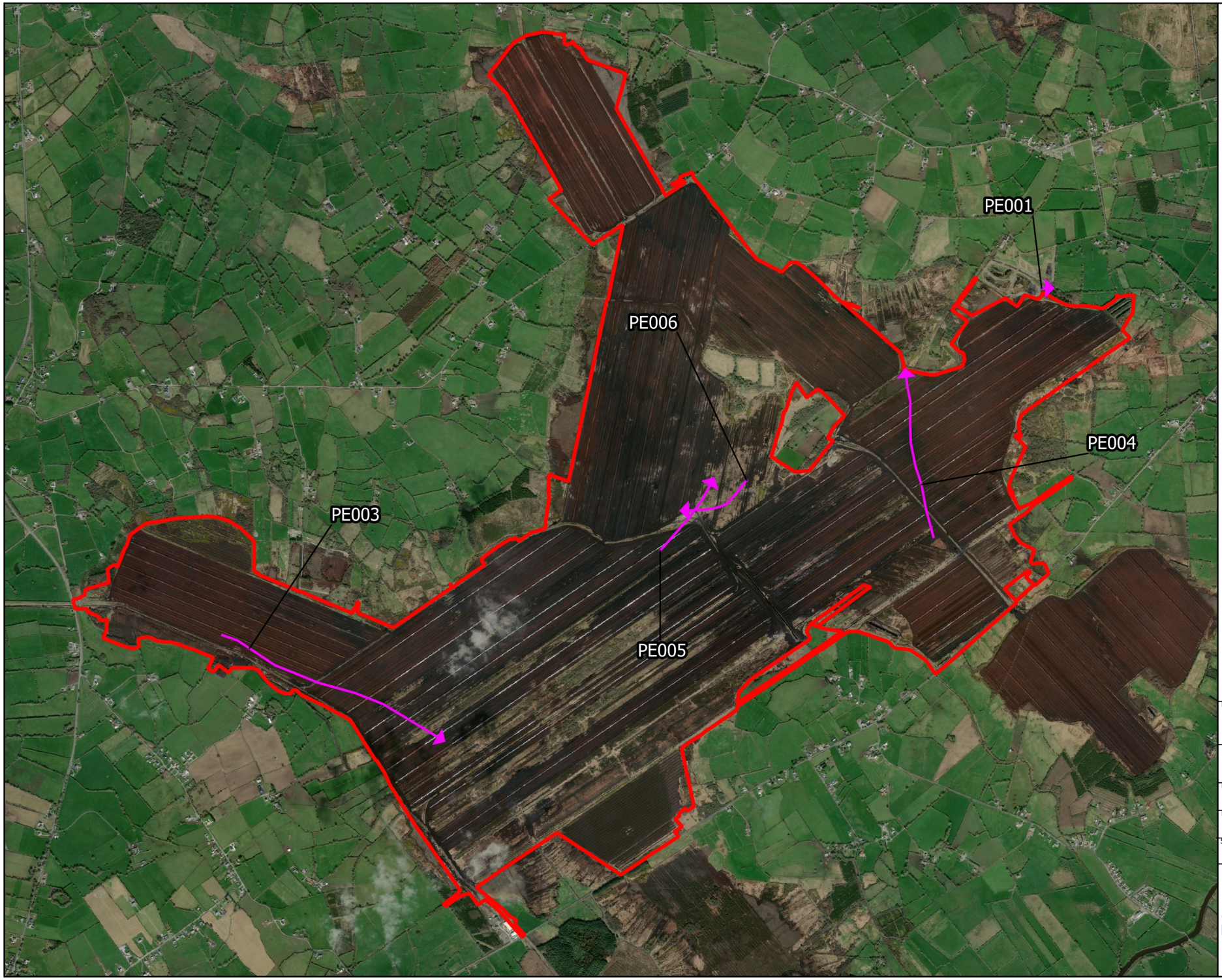
Peregrine Observations
Vantage Point Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 8.1
Scale	Date
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Map Legend

Application Site Boundary

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Drawing Title

Peregrine Observations
Breeding Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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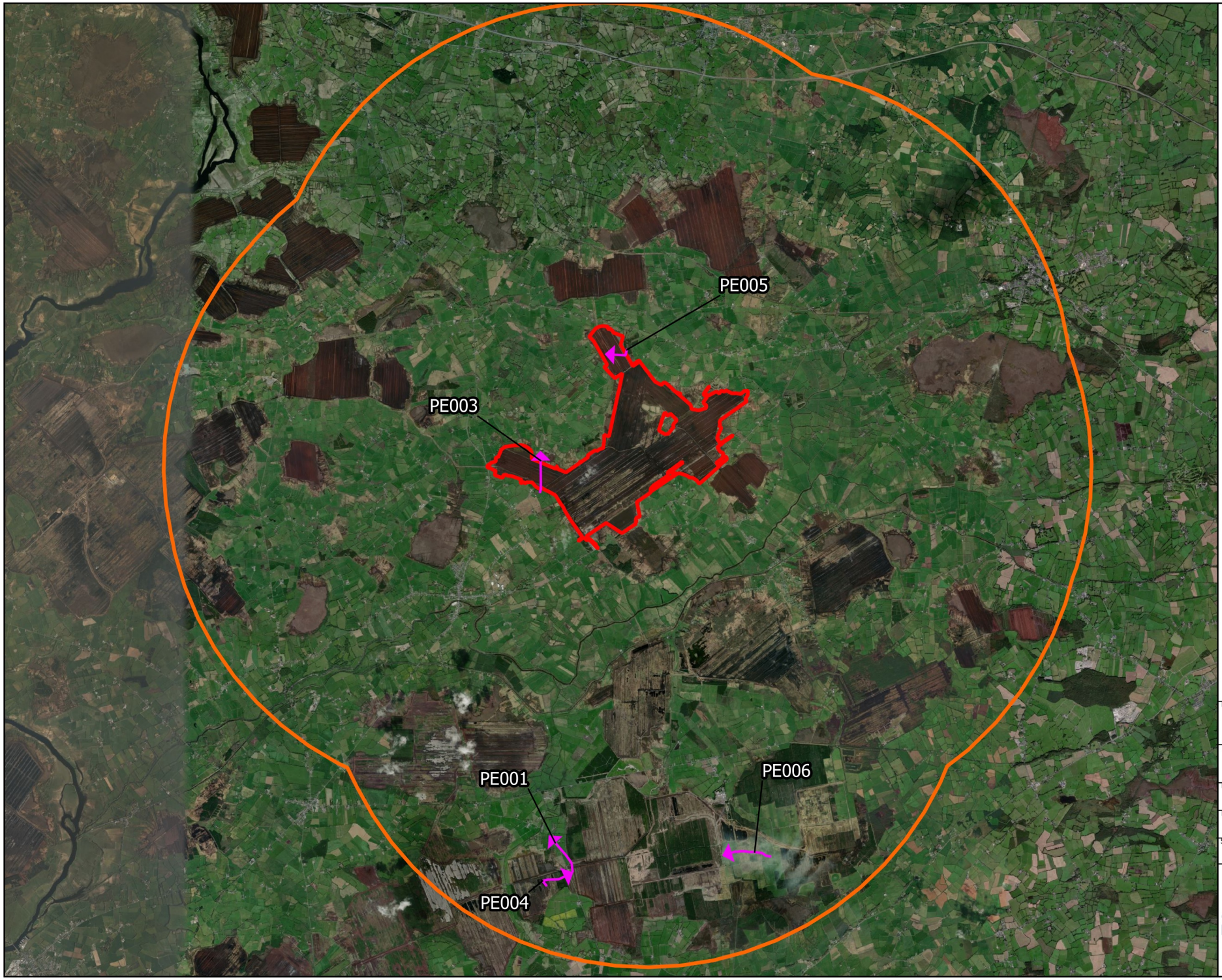
Peregrine Observations
Winter Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 8.4
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Peregrine
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 8.5
Scale	Date
1:122,000	17.07.2025

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9. LAPWING

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 9-1 Lapwing Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
L.001	VP1	05/11/2020	08:37	Lapwing	42	176	0	0	176	0	cutover bog and improved agricultural grassland; travelling	JH
L.002	VP1	05/11/2020	08:45	Lapwing	4	28	28	0	0	0	cutover bog and improved agricultural grassland; travelling, rising from cutaway and flying on	JH
L.003	VP1	05/11/2020	10:17	Lapwing	9	56	0	0	56	0	cutover bog; travelling	JH
L.004	VP5	13/11/2020	10:33	Lapwing	90	265	0	0	265	0	cutover bog and conifer plantation; travelling	JH
L.005	VP2	22/01/2021	13:14	Lapwing	1	30	0	30	0	0	cutover bog and improved agricultural grassland; travelling	JH
L.006	VP1	03/02/2021	11:54	Lapwing	120	218	10	40	168	0	upland blanket bog and conifer plantation; circling, possibly landing	JH
L.007	VP4	16/02/2021	12:29	Lapwing	120	98	0	0	0	98	improved agricultural grassland, cutover bog and conifer plantation; travelling	JH
L.008	VP2	25/05/2021	08:05	Lapwing	1	24	5	19	0		cutover bog and dystrophic lakes; flying calling, during break lapwing flew north landed near linear stretch of pond behind grassy bank where vp site is	SOB
L.009	VP1	01/07/2021	19:22	Lapwing	1	112	0	0	112	7	cutover bog, improved agricultural grassland and drainage ditches; flying, lapwing seen flying in distance. lost sight behind trees. then saw again shortly after when bird changed direction	SOB
L.011	VP3	03/11/2021	13:00	Lapwing	18	322	0	53	269	0	improved grassland, cutover bog and highly modified/non-native woodland; flying, flock of 18 birds observed flying on the outskirts of the bog heading north.	CR
L.012	VP3	11/04/2022	10:33	Lapwing	2	158	0	0	158	0	cutover bog; flying	NS
L.013	VP6	13/12/2022	09:54	Lapwing	6	141	0	26	115	0	cutover bog; flying, heading west.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
L.014	VP6	13/12/2022	10:54	Lapwing	4	301	0	0	301	0	cutover bog; flying, heading south	CR
L.015	VP1	14/12/2022	11:38	Lapwing	4	130	0	0	130	0	cutover bog; flying, heading south.	CR
L.016	VP1	14/12/2022	13:32	Lapwing	15	132	0	0	132	0	cutover bog and conifer plantation; flying, heading south	CR
L.018	VP2	16/05/2023	19:49	Lapwing	2	280	180	40	60	0	cutover bog; flying/calling, flying in close association with a third lapwing. briefly hunted unsuccessfully by peregrine falcon.	CR
L.020	VP2	16/05/2023	20:05	Lapwing	1	23	23	0	0	0	cutover bog; flying, landed in bog further west.	CR
L.022	VP2	16/05/2023	20:16	Lapwing	1	25	25	0	0	0	cutover bog; flying, same bird observed at 20:05 pm. landed in bog and then seen in association with another lapwing.	CR
L.023	VP2	16/05/2023	20:19	Lapwing	2	-	-	-	-	-	cutover bog; roosting, pair remained on site up to end of survey at 22:26 pm.	CR
L.024	VP2	16/05/2023	21:15	Lapwing	1	-	-	-	-	-	cutover bog; roosting, third lapwing present on site. lost sight of it at 21:49 pm.	CR
L.025	VP2	01/06/2023	06:31	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.026	VP2	02/06/2023	06:49	Lapwing	1	129	129	0	0	0	cutover bog; flying/calling	CR
L.029	VP2	02/06/2023	07:55	Lapwing	1	50	40	10	0	0	cutover bog; flying	CR
L.030	VP2	02/06/2023	08:00	Lapwing	1	37	37	0	0	0	cutover bog; flying/calling	CR
L.031	VP2	02/06/2023	08:06	Lapwing	1	64	64	0	0	0	cutover bog; flying	CR
L.033	VP2	02/06/2023	08:51	Lapwing	1	8	8	0	0	0	cutover bog; flying	CR
L.034	VP5	06/07/2023	16:29	Lapwing	1	40	40	0	0	0	cutover bog; flying	CR
L.035	VP5	06/07/2023	18:00	Lapwing	1	70	70	0	0	0	cutover bog; flying	CR
L.036	VP2	13/07/2023	15:17	Lapwing	1	326	140	110	76	0	cutover bog; flying/calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
L.037	VP2	13/07/2023	15:20	Lapwing	3	29	29	0	0	0	cutover bog; flying	CR
L.038	VP2	13/07/2023	15:40	Lapwing	1	235	10	55	170	0	cutover bog; flying/calling	CR
L.040	VP2	13/07/2023	15:54	Lapwing	1	57	5	12	40	0	cutover bog; flying/calling	CR
L.041	VP2	13/07/2023	16:00	Lapwing	1	93	8	10	75	0	cutover bog; flying/calling	CR
L.042	VP2	13/07/2023	16:04	Lapwing	1	44	19	25	0	0	cutover bog; flying/calling	CR
L.043	VP2	13/07/2023	16:10	Lapwing	1	96	3	26	67	0	cutover bog; flying/calling	CR
L.044	VP2	13/07/2023	16:17	Lapwing	1	52	52	0	0	0	cutover bog; flying/calling	CR
L.045	VP2	13/07/2023	16:21	Lapwing	1	89	10	29	50	0	cutover bog; flying/calling	CR
L.046	VP2	13/07/2023	16:27	Lapwing	1	23	23	0	0	0	cutover bog; flying/calling	CR
L.047	VP2	13/07/2023	16:33	Lapwing	1	104	15	31	58	0	cutover bog; flying/calling	CR
L.048	VP2	13/07/2023	17:00	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.049	VP2	13/07/2023	17:19	Lapwing	1	139	16	55	68	0	cutover bog; flying/calling	CR
L.050	VP2	13/07/2023	17:32	Lapwing	1	51	2	9	40	0	cutover bog; flying/calling	CR
L.051	VP2	13/07/2023	17:38	Lapwing	1	101	40	16	45	0	cutover bog; flying/calling	CR
L.052	VP2	13/07/2023	18:37	Lapwing	1	22	8	14	0	0	cutover bog; flying/calling	CR
L.053	VP2	13/07/2023	18:45	Lapwing	1	28	10	18	0	0	cutover bog; flying/calling	CR
L.054	VP2	13/07/2023	18:55	Lapwing	1	122	9	24	89	0	cutover bog; flying/calling	CR
L.056	VP2	13/07/2023	19:17	Lapwing	2	16	16	0	0	0	cutover bog; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
L.057	VP2	13/07/2023	20:20	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.060	VP2	27/07/2023	10:36	Lapwing	2	125	15	45	65	0	cutover bog; flying	CR
L.061	VP2	27/07/2023	11:06	Lapwing	5	55	25	30	0	0	cutover bog; flying	CR
L.062	VP2	27/07/2023	12:57	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.063	VP2	27/07/2023	15:24	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.065	VP5	16/08/2023	20:11	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.066	VP5	16/08/2023	21:40	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.067	VP5	16/08/2023	21:59	Lapwing	2	-	-	-	-	-	cutover bog; calling	CR
L.068	VP2	08/03/2024	07:15	Lapwing	1	-	-	-	-	-	cutover bog; calling	CR
L.069	VP1	03/04/2024	18:47	Lapwing	2	6	0	6	0	0	cutover bog; flying	NL
L.070	VP2	29/04/2024	16:52	Lapwing	1	-	-	-	-	-	bogs; flushed, came up very briefly from bog then dropped straight back down into ditch	PDC
L.072	VP2	29/04/2024	16:56	Lapwing	1	26	26	0	0	0	bogs; travelling, dropped into scrubby area	PDC
L.073	VP2	29/04/2024	16:57	Lapwing	1	15	15	0	0	0	bogs; travelling, flew up from bog then dropped into scrubby area next to flooded part of bog. lost in the scrub.	PDC
L.074	VP2	29/04/2024	18:30	Lapwing	1	-	-	-	-	-	bogs; standing, watched for about 20 minutes before it rose and dropped back down out of sight	PDC
L.075	VP2	29/04/2024	18:31	Lapwing	1	29	29	0	0	0	bogs; travelling, dropped into scrubby area where an earlier lapwing had dropped	PDC
L.076	VP2	29/04/2024	20:13	Lapwing	1	-	-	-	-	-	bogs; standing, seen dropping onto bog near a large pool, watched for 8 minutes	PDC
L.077	VP2	20/05/2024	09:30	Lapwing	1	-	-	-	-	-	bogs; resting, watched for over 10 minutes, didn't see it leave	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
L.079	VP2	20/05/2024	10:21	Lapwing	1	-	-	-	-	-	bogs; resting, didn't see it arrive or leave	PDC
L.080	VP2	19/06/2024	07:20	Lapwing	1	200	0	0	200	0	cutover bog; flying	PDC
L.081	VP2	19/06/2024	08:08	Lapwing	1	223	30	10	183	0	bogs; flying, 4 birds started together	PDC
L.082	VP2	19/06/2024	08:10	Lapwing	1	130	0	0	130	0	bogs; flying	PDC
L.083	VP2	19/06/2024	08:11	Lapwing	2	130	0	0	130	0	bogs; flying	PDC
L.084	VP2	19/06/2024	10:57	Lapwing	1	9	9	0	0	0	cutover bog; travelling, flying low to pool	PDC
L.085	VP2	19/06/2024	10:58	Lapwing	1	-	-	-	-	-	bogs; foraging	PDC
L.086	VP2	19/06/2024	11:29	Lapwing	1	47	47	0	0	0	bogs; travelling	PDC
L.087	VP6	07/01/2025	16:03	Lapwing	2	23	23	0	0	0	improved agricultural grassland; travelling	CC
L.088	VP4	05/03/2025	09:48	Lapwing	3	14	14	0	0	0	cutover bog; travelling	CC
L.089	VP5	06/03/2025	10:35	Lapwing	2	28	0	28	0	0	lowland blanket bog; travelling, flying over	CC

Table 9-2 Lapwing Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
L.002	26/05/2023	14:26	-	Lapwing	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
L.003	29/05/2023	17:40	-	Lapwing	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
L.004	29/05/2023	19:10	-	Lapwing	2	cutover bog; roosting (pair; probable breeding)	CR
L.005	29/05/2023	19:11	-	Lapwing	1	cutover bog; flying, observed heading north west. separate bird from the pair roosting in bog at 19:10 pm. (suitable nesting habitat; possible breeder)	CR
L.006	29/05/2023	19:15	-	Lapwing	2	cutover bog; flying/calling, pair left bog heading north west. (pair; probable breeding)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
L.007	15/06/2023	13:39	-	Lapwing	2	cutover bog; roosting (pair; probable breeding)	CR
L.008	27/06/2023	16:51	-	Lapwing	1	cutover bog; flying/calling (suitable nesting habitat; possible breeder)	CR
L.009	27/06/2023	16:58	-	Lapwing	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
L.010	27/06/2023	17:04	-	Lapwing	2	cutover bog; flying/calling (pair; probable breeding)	CR
L.011	27/06/2023	17:06	-	Lapwing	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
L.012	27/06/2023	17:07	-	Lapwing	5	cutover bog; flying/calling (suitable nesting habitat; possible breeder)	CR
L.013	27/06/2023	18:37	-	Lapwing	1	cutover bog; calling (pair; probable breeding)	CR
L.014	27/06/2023	19:28	-	Lapwing	1	cutover bog; flying/calling (suitable nesting habitat; possible breeder)	CR
L.015	27/06/2023	19:30	-	Lapwing	1	cutover bog; flying/calling (suitable nesting habitat; possible breeder)	CR
L.016	19/07/2023	17:15	-	Lapwing	1	cutover bog; roosting/calling (suitable nesting habitat; possible breeder)	CR
L.017	19/07/2023	17:28	-	Lapwing	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
L.018	19/07/2023	17:42	-	Lapwing	3	cutover bog; flying/calling (pair; probable breeding)	CR
L.019	19/07/2023	17:50	-	Lapwing	1	cutover bog; flying/calling (suitable nesting habitat; possible breeder)	CR
L.020	26/07/2023	18:00	-	Lapwing	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
L.021	26/07/2023	18:44	-	Lapwing	8	cutover bog; flying/calling (pair; probable breeding)	CR
L.022	22/04/2024	10:42	T1	Lapwing	1	bogs and canals; travelling, calling loudly (suitable nesting habitat; possible breeder)	PDC
L.023	23/04/2024	10:54	T2	Lapwing	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
L.024	24/04/2024	10:51	T3	Lapwing	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
L.025	29/05/2024	06:33	T3	Lapwing	1	bogs; resting, standing on the bog (suitable nesting habitat; possible breeder)	PDC
L.026	29/05/2024	06:34	T3	Lapwing	1	bogs; resting, second bird standing on bog. both were visible. (suitable nesting habitat; possible breeder)	PDC
L.027	29/05/2024	06:37	T3	Lapwing	1	bogs; flushed, presumably a third bird, initially spotted standing on the bog. it then flew a short distance calling, once it had seen me and dropped back down, out of sight. (suitable nesting habitat; possible breeder)	PDC
L.028	29/05/2024	06:39	T3	Lapwing	1	bogs; travelling, not sure which bird this was. briefly seen and heard before it dropped onto bog out of sight. (suitable nesting habitat; possible breeder)	PDC
L.029	29/05/2024	08:52	T3	Lapwing	2	bogs; travelling, first bird spotted on bog, then second flew across and first bird went up to join it. they flew around calling for a good 5 minutes before settling on the bog again. (suitable nesting habitat; possible breeder)	PDC
L.030	29/05/2024	08:53	T3	Lapwing	1	bogs; resting, spotted on the bog whilst the other two were flying around. (suitable nesting habitat; possible breeder)	PDC
L.031	29/05/2024	10:01	T3	Lapwing	2	bogs; calling, sounded like 2 birds calling to each other but couldn't see them (suitable nesting habitat; possible breeder)	PDC
L.032	29/05/2024	10:02	T3	Lapwing	1	bogs; flushed, flushed from near one of the pools (suitable nesting habitat; possible breeder)	PDC
L.033	25/06/2024	08:40	T2	Lapwing	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
L.035	25/06/2024	08:45	T2	Lapwing	2	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
L.036	25/06/2024	08:47	T2	Lapwing	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
L.037	25/06/2024	08:48	T2	Lapwing	1	bogs; travelling, dropped onto bog (suitable nesting habitat; possible breeder)	PDC
L.038	26/06/2024	06:42	T3	Lapwing	1	bogs; flushed, came up from and dropped back onto bog (suitable nesting habitat; possible breeder)	PDC
L.039	26/06/2024	08:15	T3	Lapwing	1	bogs and scrub/transitional woodland; travelling (suitable nesting habitat; possible breeder)	PDC
L.040	26/06/2024	08:16	T3	Lapwing	2	bogs and scrub/transitional woodland; travelling, calling (suitable nesting habitat; possible breeder)	PDC
L.041	26/06/2024	08:17	T3	Lapwing	1	bogs and scrub/transitional woodland; travelling (suitable nesting habitat; possible breeder)	PDC
L.042	26/06/2024	10:47	T3	Lapwing	1	bogs; travelling, calling (suitable nesting habitat; possible breeder)	PDC

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
L.043	26/06/2024	10:48	T3	Lapwing	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
L.044	23/07/2024	08:04	T2	Lapwing	1	bogs; flushed, flushed from bog, briefly seen flying away before it dropped again onto scrubby bog. couldn't find it again. (suitable nesting habitat; possible breeder)	PDC

Table 9-3 Lapwing Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
L.001	16/11/2020	14:30	-	Lapwing	1	cutover bog; flying, disturbed by observer. landing on pb4 ()	JH
L.002	23/01/2023	14:55	-	Lapwing	2	improved grassland; flying, heading south (wintering)	CR
L.003	27/03/2024	13:00	-	Lapwing	3	cutover bog; resting (wintering)	CR
L.004	04/03/2025	11:58	T2	Lapwing	4	cutover bog; flying, landed, moved from one spot to another (wintering)	ZE

Table 9-4 Lapwing Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.001	Boora	21/10/2020	10:31	Lapwing	75	improved agricultural grassland; foraging	JH
L.002	Boora	09/11/2020	09:51	Lapwing	120	improved agricultural grassland; foraging	JH
L.003	Boora	09/11/2020	09:53	Lapwing	200	improved agricultural grassland; roosting/foraging	JH
L.004	Drinagh	27/11/2020	10:39	Lapwing	40	improved agricultural grassland and upland blanket bog; circling, landing in ga1	JH
L.005	Derrybrat/Lumcloon	27/11/2020	11:25	Lapwing	6	cutover bog and acid oligotrophic lakes; roosting, at edge of flooded area	JH
L.006	Boora	27/11/2020	12:49	Lapwing	300	improved agricultural grassland; foraging	JH
L.007	Boora	27/11/2020	13:15	Lapwing	100	improved agricultural grassland; foraging	JH
L.008	Boora	27/11/2020	13:17	Lapwing	120	improved agricultural grassland; foraging	JH

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.009	Boora	27/11/2020	13:37	Lapwing	120	improved agricultural grassland; foraging	JH
L.010	Boora	03/12/2020	12:43	Lapwing	26	improved agricultural grassland; foraging	JH
L.011	Boora	03/12/2020	12:59	Lapwing	30	improved agricultural grassland; foraging	JH
L.012	Boora	03/12/2020	13:39	Lapwing	500	improved agricultural grassland; roosting	JH
L.013	Boora	18/12/2020	12:27	Lapwing	1400	improved agricultural grassland; foraging/roosting	JH
L.014	Boora	25/01/2021		Lapwing	20	improved agricultural grassland; foraging	JH
L.015	Boora	25/01/2021		Lapwing	80	improved agricultural grassland; foraging	JH
L.016	Boora	25/01/2021		Lapwing	2	improved agricultural grassland; foraging	JH
L.017	Boora	25/01/2021		Lapwing	15	improved agricultural grassland; foraging	JH
L.018	Boora	09/02/2021	13:39	Lapwing	60	improved agricultural grassland and arable crops; foraging	JH
L.019	Boora	09/02/2021	13:49	Lapwing	25	improved agricultural grassland; foraging	JH
L.020	Boora	09/02/2021	13:58	Lapwing	2	improved agricultural grassland and conifer plantation; foraging	JH
L.021	Derrybrat	25/02/2021	10:45	Lapwing	6	cutover bog and acid oligotrophic lakes; flying and calling, back on breeding grounds. same location as the last few years.	JH
L.022	Noggusduff	25/02/2021	11:23	Lapwing	30	cutover bog and acid oligotrophic lakes; roosting on island of flooded area	JH
L.023	Noggusduff	15/03/2021	07:15	Lapwing	3	lakes and ponds; roosting	PT
L.024	Derrybrat	15/03/2021	08:25	Lapwing	14	lakes and ponds; roosting	PT
L.025	Drinagh	15/03/2021	09:15	Lapwing	24	lakes and ponds; in flight	PT
L.026	Tumduff Beag	15/03/2021	14:10	Lapwing	37	lakes and ponds; roosting	PT

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.027	Tumduff Mor	15/03/2021	14:40	Lapwing	45	grassland and marsh; feeding/ displaying, on adjacent fields, north of wetland	PT
L.028	Lumcloon	30/03/2021	09:40	Lapwing	2	cutover bog and scrub/transitional woodland; resting	PT
L.029	Derrybrat	30/03/2021	10:05	Lapwing	6	lakes and ponds; resting, display	PT
L.030	Noggusduff	30/03/2021	10:50	Lapwing	8	lakes and ponds; circling (peregrine disturbance)	PT
L.031	Tumduff Mor	30/03/2021	13:10	Lapwing	12	lakes and ponds and grassland and marsh; resting	PT
L.032	Broughal	30/03/2021	14:40	Lapwing	3	cutover bog; flying	PT
L.033	Tumduff Beag	30/03/2021	15:15	Lapwing	28	lakes and ponds; roosting	PT
L.034	R437	23/04/2021	12:05	Lapwing	2	cutover bog and dystrophic lakes; resting, 2 lapwings on their own resting on bare peat near water.	SOB
L.035	R437	29/04/2021	11:04	Lapwing	1	cutover bog, reed and large sedge swamps and dystrophic lakes; preening, lapwing landed on bare peat island near reeds and rested, preening itself.	SOB
L.036	Finnamore Lakes	29/04/2021	13:05	Lapwing	1	reed and large sedge swamps and other artificial lakes and ponds; feeding, lapwing standing among sedges at edge of lake and feeding on insects.	SOB
L.037	Lough Boora	29/04/2021	15:45	Lapwing	7	wet heath and acid oligotrophic lakes; feeding, 7 lapwing feeding on grassy/heath shore east side of lake.	SOB
L.038	Noggusduff	18/05/2021	14:50	Lapwing	3	lakes and ponds and cutover bog; flying, preening, lapwing being mobbed by black headed gulls	JG
L.040	Noggusduff	27/05/2021	15:26	Lapwing	2	lakes and ponds and cutover bog; flying,/roosting	JG
L.041	Boora	27/05/2021	19:24	Lapwing	1	cutover bog; flying	JG
L.042	Lough Boora	03/08/2021	15:10	Lapwing	33	acid oligotrophic lakes; roosting, 8 juveniles	JG
L.043	Finnamore Lakes	17/08/2021	15:21	Lapwing	28	eroding/upland rivers, amenity grassland (improved) and cutover bog; flyover/calling, large group of 28, may have been flushed. landed to the pb4 area to east of finnamore lakes	JG
L.044	Lough Boora	17/08/2021	16:25	Lapwing	41	acid oligotrophic lakes; roosting/flying, large flock. sex/age not determined	JG
L.045	Lough Boora	01/09/2021	16:18	Lapwing	7	dystrophic lakes and reed and large sedge swamps; preening, 7 lapwings standing together on lake shore. preening themselves.	SOB

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.046	Tumduff	01/09/2021	17:01	Lapwing	14	dystrophic lakes, reed and large sedge swamps and cutover bog; resting preening, lapwings resting on lake shore, some preening	SOB
L.047	Tumduff	07/09/2021	16:10	Lapwing	38	lakes and ponds and improved grassland; flying	CR
L.048	R437	14/09/2021	15:45	Lapwing	9	cutover bog, dystrophic lakes and reed and large sedge swamps; flight, lapwings seen flying from one point in lake to another.	SOB
L.049	Tumduff	14/09/2021	18:25	Lapwing	10	mesotrophic lakes and cutover bog; preening resting, 10 lapwing on shore of lake preening and resting	SOB
L.050	Derrybrat	12/10/2021	12:44	Lapwing	30	acid oligotrophic lakes; roosting	CR
L.051	Lough Boora	12/10/2021	13:25	Lapwing	26	acid oligotrophic lakes; roosting	CR
L.052	Drinagh	27/10/2021	12:42	Lapwing	70	lakes and ponds, improved grassland and cutover bog; flying, flock of 70 birds observed flying over site. last seen heading west.	CR
L.053	Derrybrat	27/10/2021	13:19	Lapwing	15	lakes and ponds; roosting	CR
L.054	Tumduff Wetlands	27/10/2021	15:20	Lapwing	12	lakes and ponds; flying, flock of 12 birds observed heading north	CR
L.055	Lough Boora	10/11/2021	12:00	Lapwing	3	lakes and ponds; flying, flew over the lake heading east towards tumduff wetlands	CR
L.056	Tumduff	10/11/2021	13:05	Lapwing	90	improved grassland and highly modified/non-native woodland; flying, 90 lapwing observed flying before landing in field to the north of tumduff	CR
L.057	Tumduff	10/11/2021	13:30	Lapwing	4	lakes and ponds and highly modified/non-native woodland; flying, heading east.	CR
L.058	Tumduff	10/11/2021	13:32	Lapwing	75	improved grassland; flying, large flock of 75 birds observed heading north east.	CR
L.059	Tumduff	10/11/2021	13:37	Lapwing	44	improved grassland; flying/roosting, flock of 44 birds observed flying over field. 25 birds landed whilst rest of flock headed north west.	CR
L.060	Cloghan Lake	24/11/2021	11:05	Lapwing	1	lakes and ponds; roosting/flying, left the area heading north.	CR
L.061	Tumduff	24/11/2021	14:13	Lapwing	85	improved grassland; roosting, roosting in field north of tumduff wetlands	CR
L.062	Tumduff	24/11/2021	14:35	Lapwing	140	improved grassland; roosting	CR
L.063	Tumduff	09/12/2021	13:58	Lapwing	2	improved grassland; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.064	Tumduff	09/12/2021	14:03	Lapwing	82	improved grassland and lakes and ponds; flying	CR
L.065	Tumduff	09/12/2021	14:14	Lapwing	35	improved grassland; flying	CR
L.066	Tumduff	22/12/2021	13:51	Lapwing	200	improved grassland; roosring/foraging	CR
L.067	Tumduff	22/12/2021	14:11	Lapwing	35	improved grassland; roosting	CR
L.068	Tumduff	22/12/2021	14:24	Lapwing	80	improved grassland; flying	CR
L.069	Tumduff	22/12/2021	14:30	Lapwing	50	lakes and ponds and improved grassland; flying	CR
L.070	Drinagh	03/01/2022	12:21	Lapwing	60	lakes and ponds; flying, heading north east.	CR
L.071	Tumduff	07/01/2022	09:51	Lapwing	23	improved grassland; foraging	CR
L.072	Tumduff	07/01/2022	10:05	Lapwing	48	improved grassland; foraging	CR
L.073	Tumduff	28/01/2022	14:10	Lapwing	200	improved grassland; roosting	CR
L.074	Tumduff	28/01/2022	14:19	Lapwing	400	improved grassland; roosting	CR
L.075	Tumduff	09/02/2022	12:05	Lapwing	202	improved grassland; foraging/roosting	CR
L.076	Tumduff	09/02/2022	12:12	Lapwing	38	improved grassland; foraging/roosting	CR
L.077	Tumduff	09/02/2022	12:42	Lapwing	21	lakes and ponds and highly modified/non-native woodland; flying	CR
L.078	Tumduff	09/02/2022	12:47	Lapwing	53	improved grassland and lakes and ponds; flying	CR
L.079	Tumduff	09/02/2022	13:00	Lapwing	7	lakes and ponds; roosting	CR
L.080	Lough Boora	09/02/2022	13:22	Lapwing	50	lakes and ponds; flying	CR
L.081	Lough Boora	09/02/2022	13:29	Lapwing	125	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.082	Drinagh	24/02/2022	14:20	Lapwing	19	lakes and ponds; flying, heading south	CR
L.083	Noggusduff	16/03/2022	17:58	Lapwing	2	lakes and ponds; flying	CR
L.084	Lough Boora	01/04/2022	10:35	Lapwing	1	watercourses and improved agricultural grassland; calling	KS
L.085	Tumduff	01/04/2022	11:15	Lapwing	32	improved agricultural grassland; circling, landed	KS
L.086	Tumduff	01/04/2022	11:15	Lapwing	8	improved agricultural grassland; circling	KS
L.087	Noggusduff	12/04/2022	12:52	Lapwing	7	turloughs; flying	CR
L.088	Noggusduff	12/04/2022	13:14	Lapwing	4	turloughs; flying	CR
L.089	Derrybrat	12/04/2022	15:35	Lapwing	2	turloughs; roosting	CR
L.090	Tumduff	12/04/2022	16:11	Lapwing	3	improved grassland; roosting	CR
L.091	Tumduff	26/04/2022	12:43	Lapwing	1	lakes and ponds and conifer plantation; flying	CR
L.092	Noggusduff	26/04/2022	18:05	Lapwing	5	turloughs; roosting	CR
L.093	Noggusduff	26/04/2022	18:21	Lapwing	3	turloughs; flying	CR
L.094	Noggusduff	11/05/2022	12:00	Lapwing	6	turloughs; roosting	CR
L.095	Noggusduff	11/05/2022	12:14	Lapwing	2	turloughs; flying	CR
L.096	Noggusduff	11/05/2022	12:29	Lapwing	4	turloughs; flying	CR
L.097	Tumduff	11/05/2022	14:47	Lapwing	2	lakes and ponds; flying	CR
L.098	Noggusduff	27/05/2022	13:13	Lapwing	1	turloughs; flying	CR
L.099	Noggusduff	27/05/2022	13:32	Lapwing	2	turloughs; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.100	Tumduff	27/05/2022	19:32	Lapwing	1	improved grassland; flying	CR
L.101	Tumduff	27/05/2022	19:42	Lapwing	2	lakes and ponds, improved grassland and conifer plantation; flying	CR
L.102	Tumduff	30/08/2022	15:57	Lapwing	11	improved grassland; foraging	CR
L.103	Lough Boora	30/08/2022	16:58	Lapwing	147	lakes and ponds; roosting/flying	CR
L.104	Turraun Nature Park	30/08/2022	17:55	Lapwing	20	lakes and ponds; flying	CR
L.105	Tumduff	31/08/2022	15:34	Lapwing	3	improved grassland; foraging	CR
L.106	Lough Boora	31/08/2022	16:39	Lapwing	163	lakes and ponds; roosting/flying	CR
L.107	Noggusduff	15/09/2022	12:45	Lapwing	2	turloughs; roosting	CR
L.108	Tumduff	15/09/2022	16:00	Lapwing	150	improved grassland; foraging/roosting	CR
L.109	Lough Boora	15/09/2022	16:59	Lapwing	150	lakes and ponds; roosting	CR
L.110	Tumduff	30/09/2022	15:12	Lapwing	220	improved grassland; foraging	CR
L.111	Lough Boora	30/09/2022	16:01	Lapwing	3	lakes and ponds; roosting	CR
L.112	Tumduff	12/10/2022	15:25	Lapwing	12	improved grassland and lakes and ponds; flying	CR
L.113	Tumduff	12/10/2022	15:36	Lapwing	120	lakes and ponds and improved grassland; flying	CR
L.114	Tumduff	12/10/2022	15:36	Lapwing	80	improved grassland; foraging/roosting	CR
L.115	Tumduff	12/10/2022	15:54	Lapwing	40	lakes and ponds and improved grassland; flying	CR
L.116	Tumduff	27/10/2022	13:40	Lapwing	42	lakes and ponds; flying	CR
L.117	Tumduff	27/10/2022	13:45	Lapwing	54	improved grassland; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.118	Lough Boora	27/10/2022	14:17	Lapwing	63	lakes and ponds and improved grassland; flying	CR
L.119	Derrybrat	27/10/2022	16:56	Lapwing	6	lakes and ponds; roosting	CR
L.120	Tumduff	28/10/2022	13:25	Lapwing	85	improved grassland; roosting	CR
L.121	Tumduff	11/11/2022	14:56	Lapwing	115	improved grassland; roosting	CR
L.122	Tumduff	11/11/2022	15:05	Lapwing	5	improved grassland and lakes and ponds; flying	CR
L.123	Lough Boora	11/11/2022	16:12	Lapwing	100	improved grassland; roosting	CR
L.124	Tumduff	23/11/2022	14:43	Lapwing	5	improved grassland; flying	CR
L.125	Tumduff	23/11/2022	15:10	Lapwing	180	improved grassland; roosting	CR
L.126	Lough Boora	23/11/2022	15:27	Lapwing	210	improved grassland; roosting	CR
L.127	Tumduff	07/12/2022	14:47	Lapwing	9	improved grassland; roosting	CR
L.128	Tumduff	07/12/2022	15:10	Lapwing	78	improved grassland; roosting	CR
L.129	Lough Boora	07/12/2022	15:53	Lapwing	88	improved grassland; roosting	CR
L.130	Tumduff	19/12/2022	13:07	Lapwing	14	improved grassland; foraging	CR
L.131	Lough Boora	19/12/2022	14:00	Lapwing	32	improved grassland; roosting	CR
L.132	Tumduff	10/01/2023	14:59	Lapwing	160	improved grassland; roosting/foraging	CR
L.133	Tumduff	10/01/2023	15:39	Lapwing	62	lakes and ponds; roosting	CR
L.134	Lough Boora	10/01/2023	15:45	Lapwing	250	improved grassland; roosting/foraging	CR
L.135	Tumduff	26/01/2023	13:43	Lapwing	300	improved grassland; roosting/foraging	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.136	Tumduff	26/01/2023	14:18	Lapwing	67	improved grassland and lakes and ponds; flying	CR
L.137	Lough Boora	26/01/2023	14:22	Lapwing	2	improved grassland; foraging	CR
L.138	Derrybrat	26/01/2023	14:50	Lapwing	28	lakes and ponds; flying	CR
L.139	Turraun Nature Park	08/02/2023	12:46	Lapwing	20	lakes and ponds; flying	CR
L.140	Tumduff	08/02/2023	14:20	Lapwing	16	improved grassland and lakes and ponds; flying	CR
L.141	Tumduff	21/02/2023	10:10	Lapwing	200	lakes and ponds; flying	CR
L.142	Drinagh	21/02/2023	13:29	Lapwing	1	lakes and ponds; flying	CR
L.143	Noggusduff	07/03/2023	11:17	Lapwing	23	lakes and ponds and conifer plantation; flying	CR
L.144	Derrybrat	07/03/2023	14:11	Lapwing	50	lakes and ponds; roosting	CR
L.145	Tumduff	07/03/2023	16:12	Lapwing	16	lakes and ponds; roosting	CR
L.146	Tumduff	07/03/2023	16:15	Lapwing	40	lakes and ponds; flying	CR
L.147	Tumduff	21/03/2023	12:05	Lapwing	5	lakes and ponds; roosting	CR
L.148	Derrybrat	21/03/2023	13:42	Lapwing	17	lakes and ponds; flying	CR
L.149	Noggusduff	21/03/2023	16:11	Lapwing	7	lakes and ponds and conifer plantation; flying	CR
L.150	Tumduff	12/04/2023	16:38	Lapwing	1	improved grassland; flying	CR
L.151	Tumduff	12/04/2023	17:03	Lapwing	7	improved grassland; flying	CR
L.152	Noggusduff	26/04/2023	11:16	Lapwing	2	lakes and ponds; roosting	CR
L.153	Derrybrat	26/04/2023	13:40	Lapwing	1	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.154	Tumduff	26/04/2023	14:24	Lapwing	4	lakes and ponds; roosting, two birds left the area.	CR
L.155	Tumduff	26/04/2023	14:57	Lapwing	2	improved grassland; flying, observed mobbing crows.	CR
L.156	Tumduff	26/04/2023	15:00	Lapwing	1	improved grassland; foraging	CR
L.158	Derrybrat	12/05/2023	15:33	Lapwing	1	lakes and ponds; roosting	CR
L.159	Tumduff	12/05/2023	16:52	Lapwing	1	improved grassland; flying/calling	CR
L.160	Tumduff	12/05/2023	17:15	Lapwing	2	improved grassland; flying, flight display	CR
L.161	Tumduff	12/05/2023	17:15	Lapwing	1	improved grassland; flying	CR
L.162	Tumduff	12/05/2023	17:28	Lapwing	1	lakes and ponds; flying	CR
L.163	Tumduff	25/05/2023	12:24	Lapwing	3	improved grassland; foraging/roosting	CR
L.164	Tumduff	25/05/2023	12:53	Lapwing	6	lakes and ponds; roosting	CR
L.165	Tumduff	25/05/2023	13:04	Lapwing	4	improved grassland; foraging	CR
L.168	Lough Boora	25/05/2023	13:42	Lapwing	4	improved grassland; foraging	CR
L.169	Tumduff	25/05/2023	14:10	Lapwing	1	lakes and ponds; flying	CR
L.170	Derrybrat	25/05/2023	15:40	Lapwing	2	lakes and ponds; roosting	CR
L.171	Tumduff	19/09/2023	17:27	Lapwing	60	improved grassland; foraging	CR
L.172	Derrybrat	06/10/2023	15:01	Lapwing	19	lakes and ponds and cutover bog; flying	CR
L.173	Tumduff	06/10/2023	16:14	Lapwing	37	improved grassland and lakes and ponds; flying	CR
L.174	Lough Boora	06/10/2023	16:50	Lapwing	7	improved grassland; in field	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.175	Noggusduff	18/10/2023	13:20	Lapwing	2	lakes and ponds; flying	CR
L.176	Lough Boora	09/11/2023	13:34	Lapwing	40	improved grassland and lakes and ponds; flying	CR
L.177	Tumduff	09/11/2023	14:13	Lapwing	90	improved grassland; foraging	CR
L.178	Tumduff	09/11/2023	14:23	Lapwing	12	lakes and ponds; roosting	CR
L.179	Tumduff	09/11/2023	14:39	Lapwing	140	improved grassland; roosting/foraging	CR
L.180	Noggusduff	23/11/2023	12:42	Lapwing	70	lakes and ponds; roosting	CR
L.181	Noggusduff	23/11/2023	12:46	Lapwing	75	lakes and ponds; roosting	CR
L.182	Tumduff	23/11/2023	15:05	Lapwing	80	lakes and ponds; in the water	CR
L.183	Lough Boora	23/11/2023	15:38	Lapwing	45	improved grassland; foraging/roosting	CR
L.184	Tumduff	08/12/2023	12:50	Lapwing	110	improved grassland; foraging	CR
L.185	Tumduff	08/12/2023	13:16	Lapwing	80	improved grassland; foraging	CR
L.186	Lough Boora	08/12/2023	13:54	Lapwing	10	improved grassland; foraging/roosting	CR
L.187	Noggusduff	21/12/2023	12:12	Lapwing	30	lakes and ponds; flying	CR
L.188	Tumduff	21/12/2023	14:51	Lapwing	90	improved grassland; roosting	CR
L.189	Tumduff	21/12/2023	15:36	Lapwing	45	lakes and ponds; flying	CR
L.190	Lough Boora	21/12/2023	15:45	Lapwing	60	improved grassland; flying	CR
L.191	Noggusduff	03/01/2024	12:14	Lapwing	26	lakes and ponds; flying	CR
L.192	Derrybrat	03/01/2024	14:15	Lapwing	9	lakes and ponds; flying, resting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.193	Tumduff	03/01/2024	15:24	Lapwing	25	lakes and ponds; flying	CR
L.194	Tumduff	03/01/2024	15:29	Lapwing	200	improved grassland; foraging, resting	CR
L.195	Tumduff	03/01/2024	15:54	Lapwing	10	lakes and ponds; resting	CR
L.196	Tumduff	18/01/2024	16:00	Lapwing	14	improved grassland; foraging, flying	CR
L.197	Tumduff	30/01/2024	09:51	Lapwing	27	improved grassland; resting	CR
L.198	Tumduff	30/01/2024	10:05	Lapwing	95	improved grassland; foraging, flying	CR
L.199	Tumduff	30/01/2024	10:24	Lapwing	50	improved grassland; resting	CR
L.200	Noggusduff	12/02/2024	12:22	Lapwing	22	lakes and ponds; resting	CR
L.201	Drinagh	12/02/2024	14:07	Lapwing	25	bogs; resting	CR
L.202	Drinagh	12/02/2024	14:19	Lapwing	5	lakes and ponds; flying	CR
L.203	Drinagh	12/02/2024	14:31	Lapwing	35	lakes and ponds; flying	CR
L.204	Lough Boora	12/02/2024	16:09	Lapwing	150	improved grassland; foraging	CR
L.205	Tumduff	12/02/2024	16:34	Lapwing	80	improved grassland; foraging	CR
L.206	Tumduff	12/02/2024	17:00	Lapwing	100	scrub/transitional woodland; flying	CR
L.207	Tumduff	27/02/2024	09:13	Lapwing	16	improved grassland; foraging	CR
L.208	Tumduff	27/02/2024	09:22	Lapwing	40	scrub/transitional woodland and improved grassland; flying	CR
L.209	Tumduff	27/02/2024	10:56	Lapwing	60	lakes and ponds and improved grassland; flying	CR
L.210	Derrybrat	27/02/2024	13:41	Lapwing	15	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.211	Tumduff	13/03/2024	16:43	Lapwing	24	improved grassland; flying	CR
L.212	Tumduff	13/03/2024	17:24	Lapwing	7	improved grassland; flying, landing	CR
L.213	Tumduff	26/03/2024	15:16	Lapwing	1	lakes and ponds; resting	CR
L.214	Tumduff	26/03/2024	15:29	Lapwing	5	improved grassland; resting, flying	CR
L.215	Tumduff	26/03/2024	15:47	Lapwing	2	improved grassland; resting	CR
L.216	Tumduff	26/03/2024	16:03	Lapwing	3	lakes and ponds; flying	CR
L.217	Lough Boora	11/04/2024	12:48	Lapwing	1	lakes and ponds; flying	NL
L.218	Turraun Nature Park	14/05/2024	12:47	Lapwing	1	watercourses and cutover bog; flushed	NL
L.219	Drinagh	14/05/2024	14:06	Lapwing	1	watercourses; preening	NL
L.220	Finnamore Lakes	29/08/2024	10:13	Lapwing	52	lakes and ponds; flying, calling, foraging	NL
L.221	Lough Boora	29/08/2024	12:16	Lapwing	200	lakes and ponds; foraging, calling	NL
L.222	Finnamore Lakes	12/09/2024	09:57	Lapwing	15	lakes and ponds; calling, view obstructed by vegetation. count estimate.	NL
L.223	Tumduff	12/09/2024	12:14	Lapwing	20	lakes and ponds; flying	NL
L.224	Lough Boora	12/09/2024	12:31	Lapwing	180	lakes and ponds; foraging, roosting, flying	NL
L.225	Lough Boora	12/09/2024	12:33	Lapwing	80	lakes and ponds; flying	NL
L.226	Finnamore Lakes	24/09/2024	11:00	Lapwing	2	lakes and ponds; roosting	NL
L.227	Lough Boora	24/09/2024	12:16	Lapwing	150	lakes and ponds; roosting, flying	NL
L.228	Lough Boora	24/09/2024	12:23	Lapwing	235	lakes and ponds; roosting, foraging, different flock to previous	NL

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.229	Noggusduff	11/10/2024	11:27	Lapwing	26	watercourses; foraging	FOD
L.230	Lough Boora	11/10/2024	12:55	Lapwing	26	watercourses; loafing	FOD
L.231	Lough Boora	11/10/2024	13:04	Lapwing	52	watercourses; loafing	FOD
L.232	Lough Boora	11/10/2024	13:09	Lapwing	48	improved agricultural grassland; eeding	FOD
L.233	Cloghan Lake	31/10/2024	13:42	Lapwing	52	improved agricultural grassland; foraging	FOD
L.234	Cloghan Lake	31/10/2024	15:01	Lapwing	125	improved agricultural grassland; foraging	FOD
L.235	Noggusduff	14/11/2024	11:17	Lapwing	56	watercourses and bogs; loafing	FOD
L.236	Lough Boora	14/11/2024	12:18	Lapwing	300	improved agricultural grassland; foraging	FOD
L.237	Lough Boora	26/11/2024	13:32	Lapwing	200	improved agricultural grassland; loafing	FOD
L.238	Lough Boora	09/12/2024	12:24	Lapwing	200	improved agricultural grassland; foraging	FOD
L.239	Tumduff	17/12/2024	13:32	Lapwing	800	improved agricultural grassland; circling	FOD
L.240	Leabeg Wind Farm	07/01/2025	14:13	Lapwing	36	dry calcareous and neutral grassland; foraging	ZE
L.241	Clonmore Riverside FC	07/01/2025	14:13	Lapwing	26	improved agricultural grassland; foraging	ZE
L.242	Noggusduff	29/01/2025	11:44	Lapwing	1	cutover bog and lakes and ponds; foraging	ZE
L.243	South of Lough Boora	29/01/2025	13:05	Lapwing	146	improved agricultural grassland; foraging, mixed with golden plover	ZE
L.244	Tumduff	29/01/2025	13:49	Lapwing	74	improved agricultural grassland; foraging, with curlew	ZE
L.245	Tumduff	29/01/2025	13:49	Lapwing	200	improved agricultural grassland; circling, estimated number; possibly landed	ZE
L.246	Tumduff	29/01/2025	14:08	Lapwing	300	improved grassland; flying, with curlew and golden plover; probably disturbed by something	ZE

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.247	River Silver	05/02/2025	12:44	Lapwing	4	improved agricultural grassland and depositing/lowland rivers; foraging	ZE
L.248	Leabeg Wind Farm	06/02/2025	13:47	Lapwing	97	improved agricultural grassland; foraging	ZE
L.249	Leabeg Wind farm	06/02/2025	13:50	Lapwing	200	improved agricultural grassland; foraging	ZE
L.250	Tumduff	06/02/2025	14:05	Lapwing	106	improved agricultural grassland; foraging	ZE
L.251	River Silver	18/02/2025	12:40	Lapwing	8	improved grassland; foraging	ZE
L.252	Tumduff	19/02/2025	13:59	Lapwing	500	improved agricultural grassland; foraging, circling, calling	ZE
L.253	Lough Boora	19/02/2025	14:01	Lapwing	150	semi-natural grassland and improved grassland; circling, calling, landed	ZE
L.254	Noggusduff	19/02/2025	15:23	Lapwing	4	cutover bog and lakes and ponds; foraging, flushed	ZE
L.255	Tumduff	06/03/2025	13:26	Lapwing	50	improved agricultural grassland and lakes and ponds; flying, travelling southwest	ZE
L.256	Tumduff	06/03/2025	14:47	Lapwing	10	improved agricultural grassland; foraging	ZE
L.257	Tumduff	06/03/2025	14:50	Lapwing	48	semi-natural grassland; foraging, flying	ZE
L.258	Noggusduff	06/03/2025	15:58	Lapwing	28	cutover bog and lakes and ponds; foraging, flushed, disturbed by a walker	ZE
L.259	Derrybrat	20/03/2025	14:03	Lapwing	4	cutover bog, swamps and lakes and ponds; foraging, flying, calling	ZE
L.260	Tumduff	20/03/2025	15:02	Lapwing	18	improved agricultural grassland; foraging	ZE
L.261	Tumduff	20/03/2025	15:17	Lapwing	76	improved agricultural grassland; foraging	ZE

Table 9-5 Lapwing Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.001	Breeding Woodcock Survey; WK2 (north of site near VP2).	05/05/2023	20:46	Lapwing	1	cutover bog; flying/calling/roosting	CR
L.002	Breeding Woodcock Survey; North of site near VP2.	05/05/2023	21:04	Lapwing	1	cutover bog; calling/roosting, heard calling until 21:44 pm.	CR
L.004	Breeding Woodcock Survey; VP2 area.	07/06/2023	21:00	Lapwing	1	cutover bog; flying	CR
L.006	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:00	Lapwing	2	cutover bog; roosting	CR
L.007	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:11	Lapwing	1	cutover bog; flying/calling	CR
L.008	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:15	Lapwing	2	cutover bog; flying/calling	CR
L.009	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:15	Lapwing	1	cutover bog; flying/calling, the fourth lapwing observed.	CR
L.010	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:18	Lapwing	1	cutover bog; flying/calling	CR
L.011	Breeding Woodcock Survey; VP2 area.	21/06/2023	21:35	Lapwing	1	cutover bog; flying/calling	CR
L.012	Breeding Woodcock Survey; VP2 area.	21/06/2023	21:41	Lapwing	1	cutover bog; flying/calling, flew over area for 10 minutes.	CR
L.013	Breeding Woodcock Survey; VP2 area.	21/06/2023	21:49	Lapwing	1	cutover bog; flying/calling	CR
L.014	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:04	Lapwing	1	cutover bog; flying/calling, third lapwing of the evening observed. landed in area where first bird was observed roosting.	CR
L.015	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:13	Lapwing	1	cutover bog; flying	CR
L.017	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:55	Lapwing	1	cutover bog; calling	CR
L.018	Hen Harrier Roost Survey; hhvp2	28/11/2023	17:27	Lapwing	1	improved grassland; calling	CR
L.019	Hen Harrier Roost Survey; HHVP2	05/12/2023	13:49	Lapwing	1	improved grassland and cutover bog; flying/calling	CR
L.020	Hen Harrier Roost Survey; HHVP2	08/01/2024	13:46	Lapwing	3	improved grassland; flying	CR
L.021	Hen Harrier Roost Survey; HHVP2	08/01/2024	17:20	Lapwing	1	improved grassland; calling	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.022	Vantage Point Survey; VP2	08/03/2024	08:47	Lapwing	3	cutover bog and scrub/transitional woodland; flying, calling, landing	CR
L.024	Vantage Point Survey; VP2	08/03/2024	10:50	Lapwing	1	cutover bog; calling	CR
L.025	Vantage Point Survey; VP2	29/04/2024	18:32	Lapwing	1	bogs; travelling, calling, brief sighting. called and took off at same time as previous lapwing sighting took off	PDC
L.027	Vantage Point Survey; VP2	29/04/2024	19:27	Lapwing	1	bogs; travelling	PDC
L.028	Breeding Woodcock Survey; T2	16/05/2024	21:05	Lapwing	2	cutover bog; flushed by surveyor	PM
L.029	Breeding Woodcock Survey; T2	16/05/2024	21:12	Lapwing	1	cutover bog; travelling	PM
L.032	Vantage Point Survey; VP2	20/05/2024	07:19	Lapwing	1	bogs; travelling	PDC
L.034	Vantage Point Survey; VP2	20/05/2024	08:36	Lapwing	1	bogs; travelling, dropped into or near ditch with vegetation growing in it	PDC
L.035	Breeding Woodcock Survey; T2	30/05/2024	21:21	Lapwing	1	cutover bog; circling; calling	PM
L.036	Breeding Woodcock Survey; T2	30/05/2024	21:22	Lapwing	1	cutover bog; flushed	PM
L.037	Breeding Woodcock Survey; T2	30/05/2024	21:22	Lapwing	1	cutover bog; flying; landed, min. 3 individuals present in the area	PM
L.038	Breeding Woodcock Survey; T2	30/05/2024	21:24	Lapwing	1	cutover bog; commuting, flew up from flooded area	PM
L.039	Breeding Woodcock Survey; T2	30/05/2024	21:39	Lapwing	1	cutover bog; calling from beside flood	PM
L.040	Breeding Woodcock Survey; T2	30/05/2024	22:20	Lapwing	2	cutover bog; calling	PM
L.041	Breeding Woodcock Survey; BWK2	12/06/2024	21:23	Lapwing	2	cutover bog; flying	SD
L.042	Breeding Woodcock Survey; BWK2	12/06/2024	21:28	Lapwing	1	cutover bog; flying, landing	SD
L.043	Breeding Woodcock Survey; BWK2	12/06/2024	21:28	Lapwing	1	cutover bog; flying, landing	SD
L.044	Breeding Woodcock Survey; BWK2	12/06/2024	21:48	Lapwing	1	cutover bog; flushed, flushed by heron landing	SD

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
L.045	Vantage Point Survey; VP2	19/06/2024	07:30	Lapwing	2	bogs; flying	PDC
L.046	Vantage Point Survey; VP2	19/06/2024	08:13	Lapwing	4	cutover bog and scrub/transitional woodland; flying, 1 bird flew up again off the bog, 3 birds joined, likely same 4 birds	PDC
L.047	Vantage Point Survey; VP2	19/06/2024	08:25	Lapwing	2	bogs; flying, shepherding lesser black-backed gull away	PDC
L.048	Breeding Raptor Survey; Turraun	20/06/2024	09:41	Lapwing	8	lakes and ponds and scrub; flying	NL
L.049	Breeding Woodcock Survey; BWK1	30/06/2024	21:28	Lapwing	2	cutover bog; calling	SD
L.050	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	09:41	Lapwing	2	bogs, scrub and conifer plantation; travelling	NL
L.051	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	09:58	Lapwing	9	lakes and ponds and scrub; flying	NL
L.052	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	10:37	Lapwing	4	bogs and conifer plantation; travelling	NL
L.053	Hen Harrier Roost Survey; hhvp 2	09/12/2024	12:28	Lapwing	3	watercourses and improved agricultural grassland; travelling	FOD
L.054	Hen Harrier Roost Survey; South of HHVP2	05/02/2025	16:05	Lapwing	130	improved grassland; circling, possibly landed	ZE
L.055	Hen Harrier Roost Survey; HHVP2	05/02/2025	18:20	Lapwing	14	bogs and semi-natural grassland; flying, alarm calling, roosting, roosting on the fields adjacent to the bog; possibly more birds	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

N

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Drawing Title

Lapwing Observations
Vantage Point Surveys

Project Title

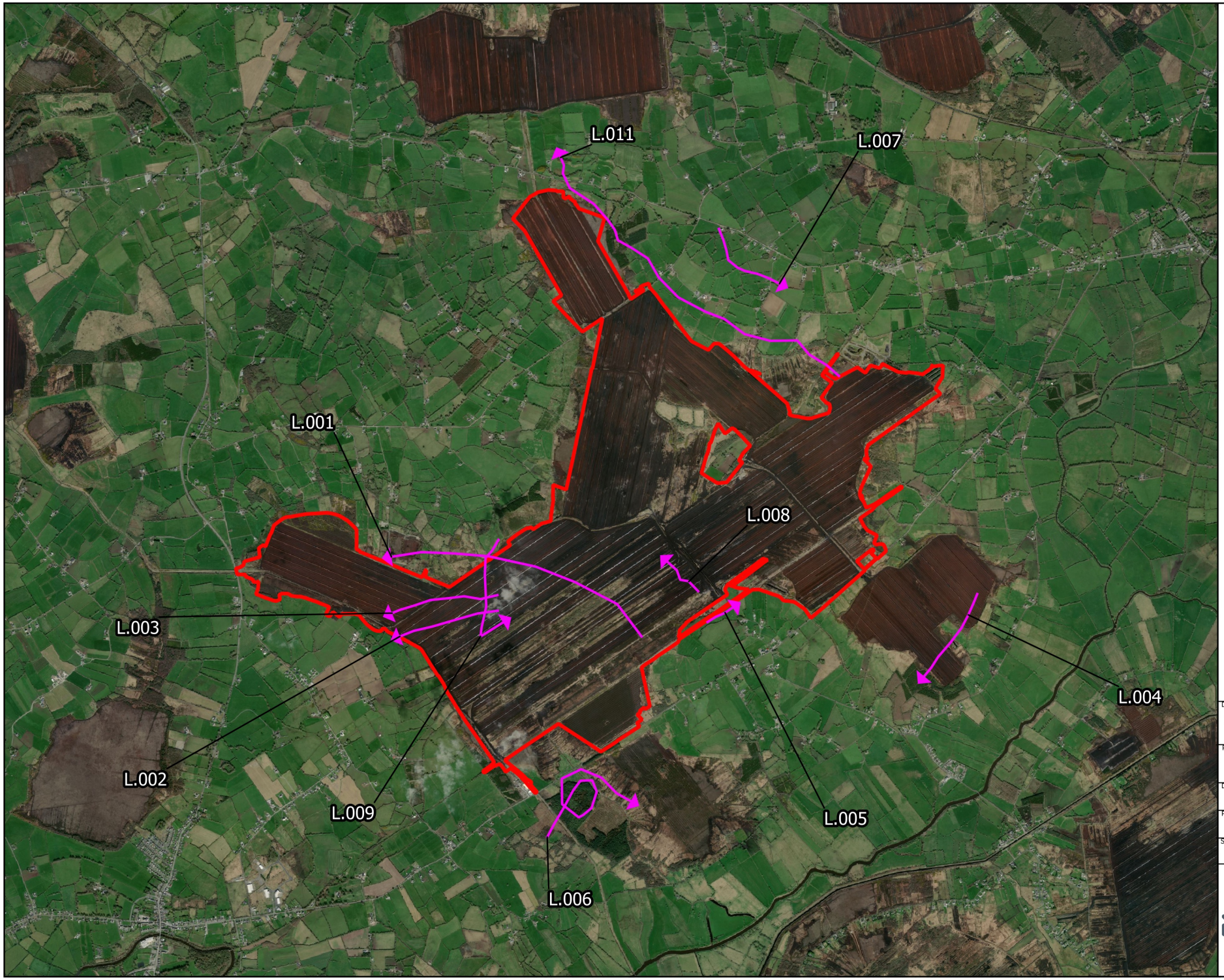
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 9.1
Scale	Date
1:45,000	17.07.2025

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Observations of Lapwing from Vantage Point Surveys have been further divided across the following Figures in order to improve readability:

- Figure 9-1a – Lapwing Vantage Point Survey Data - Winter Season 2020/21
- Figure 9-1b – Lapwing Vantage Point Survey Data - Breeding Season 2021, Winter Season 2022/22 and Winter Season 2022/23
- Figure 9-1c – Lapwing Vantage Point Survey Data - Winter Season 2023/24
- Figure 9-1d – Lapwing Vantage Point Survey Data - Breeding Season 2024 and Winter Season 2024/25



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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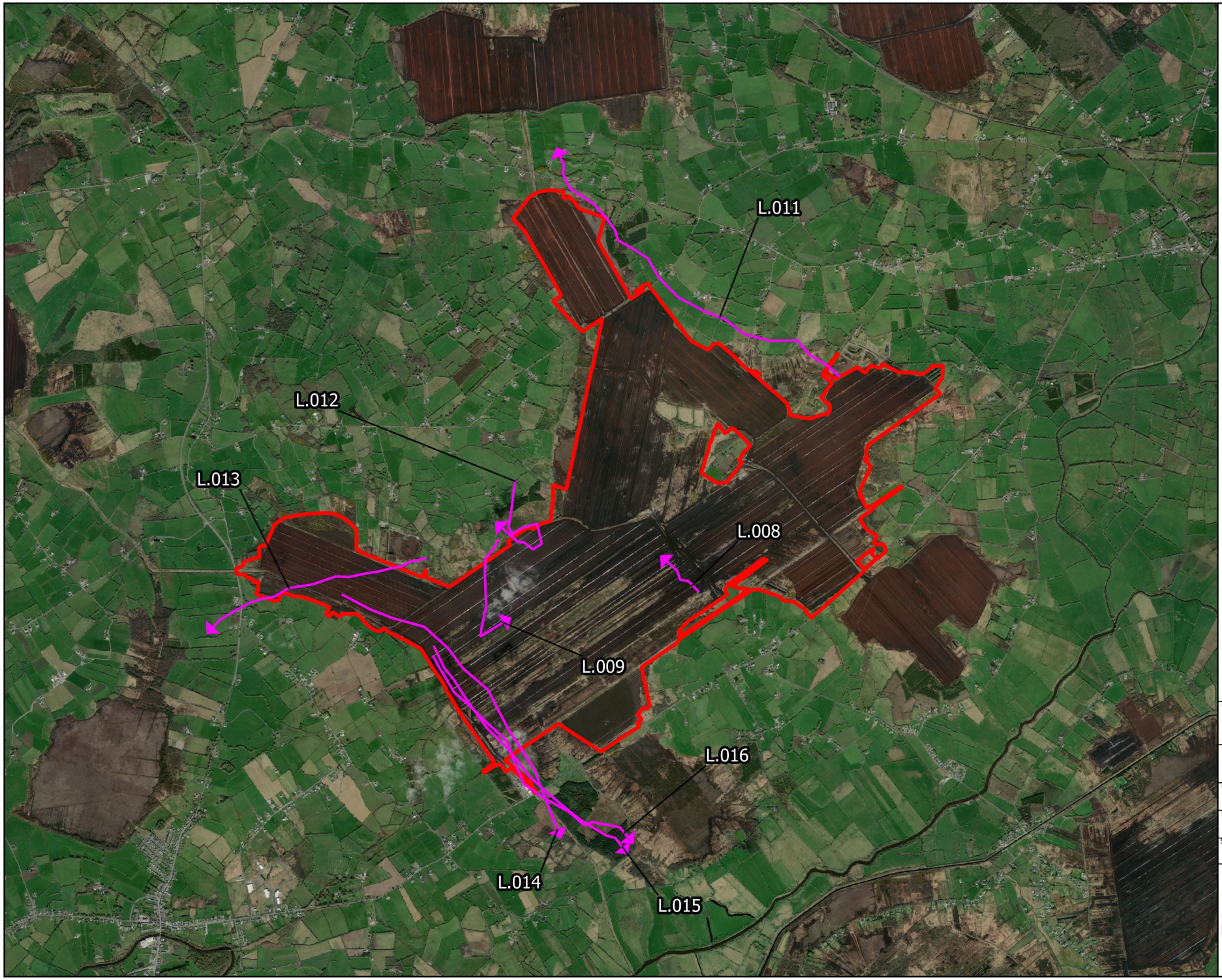
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Drawing Title
Lapwing Observations Winter 2020/21 Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.1a
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Map Legend

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- Flight Observation

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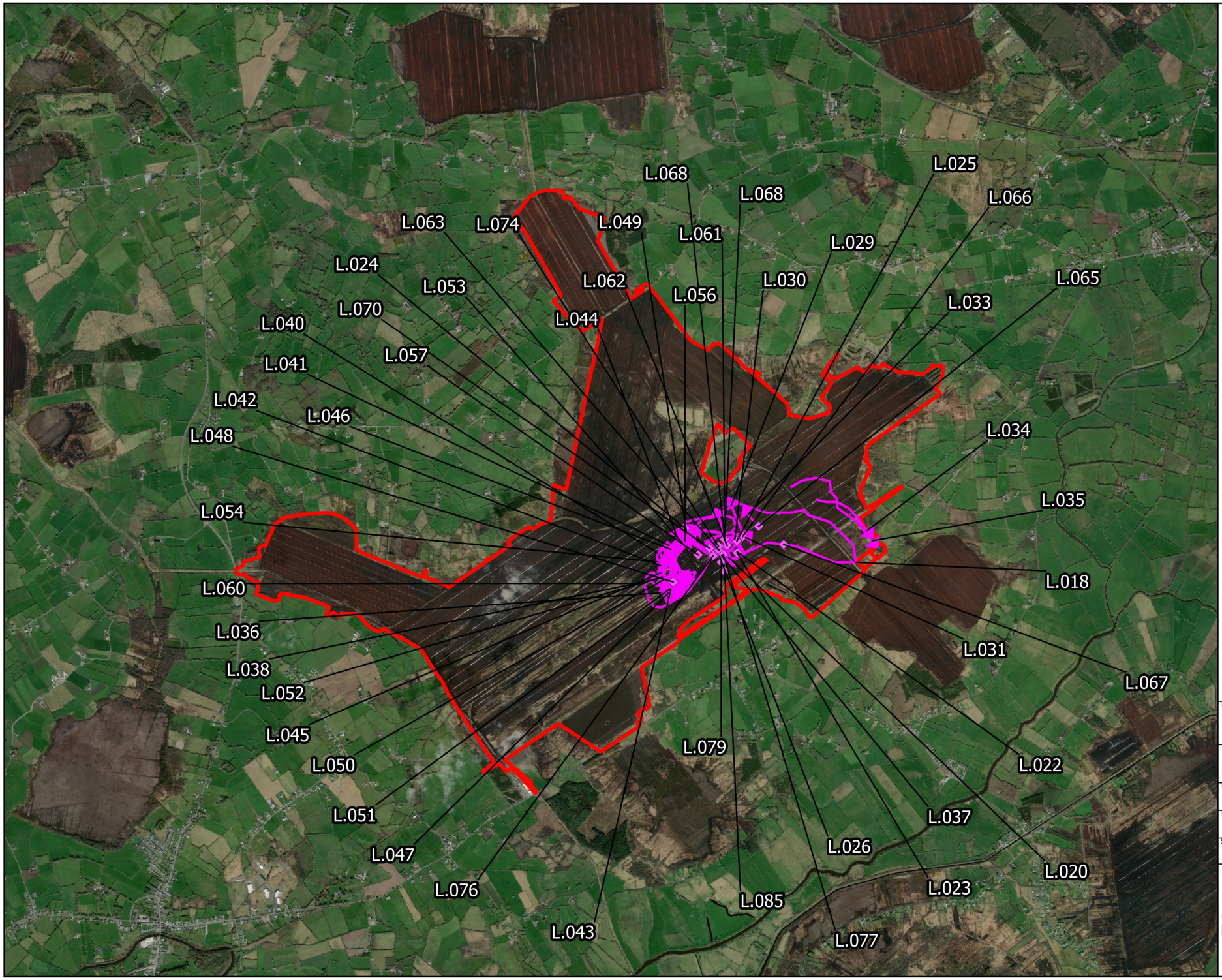
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Drawing Title: Lapwing Observations Apr21-Mar23 Vantage Point Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.1b
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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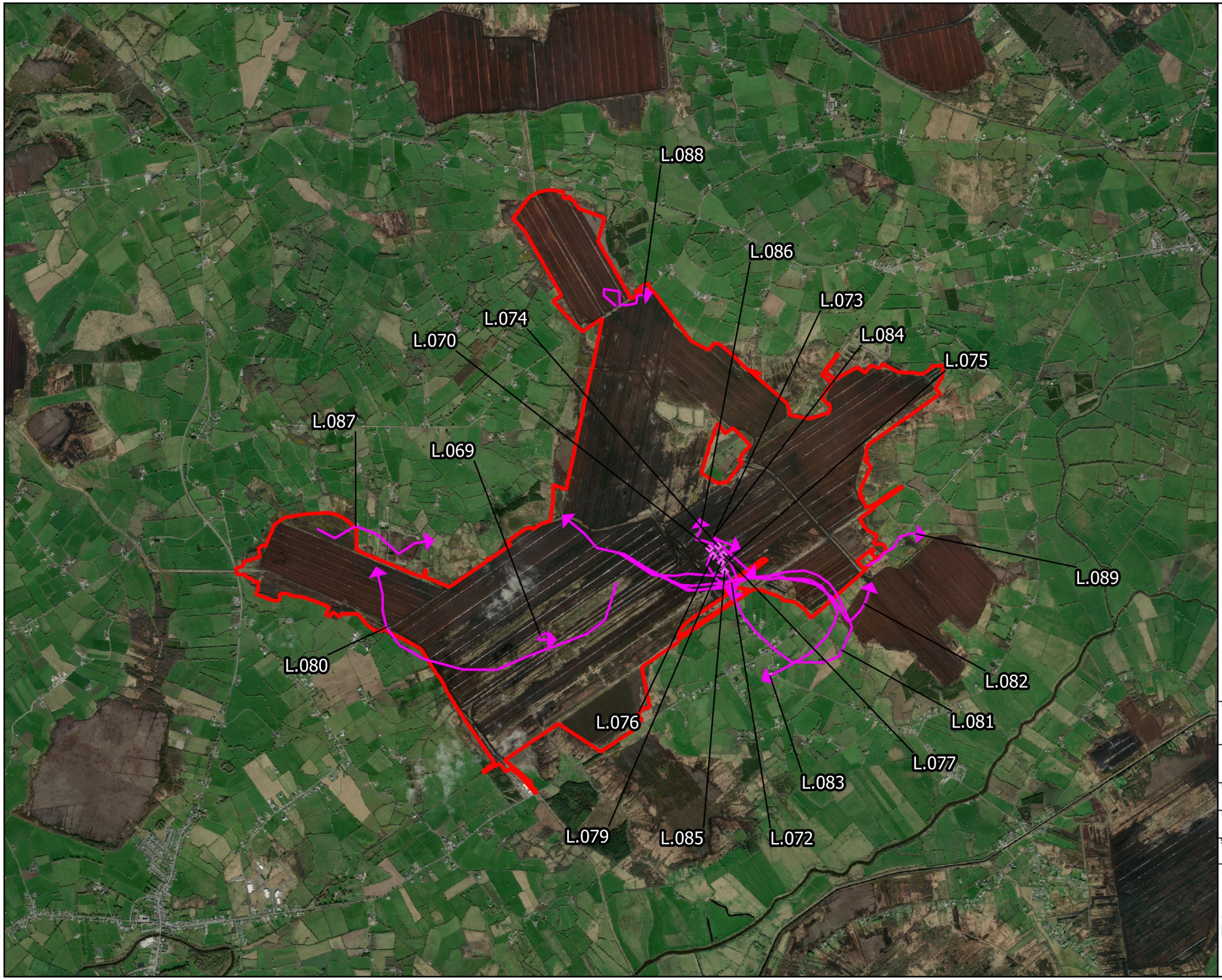
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Drawing Title
Lapwing Observations Apr23-Mar24
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.1c
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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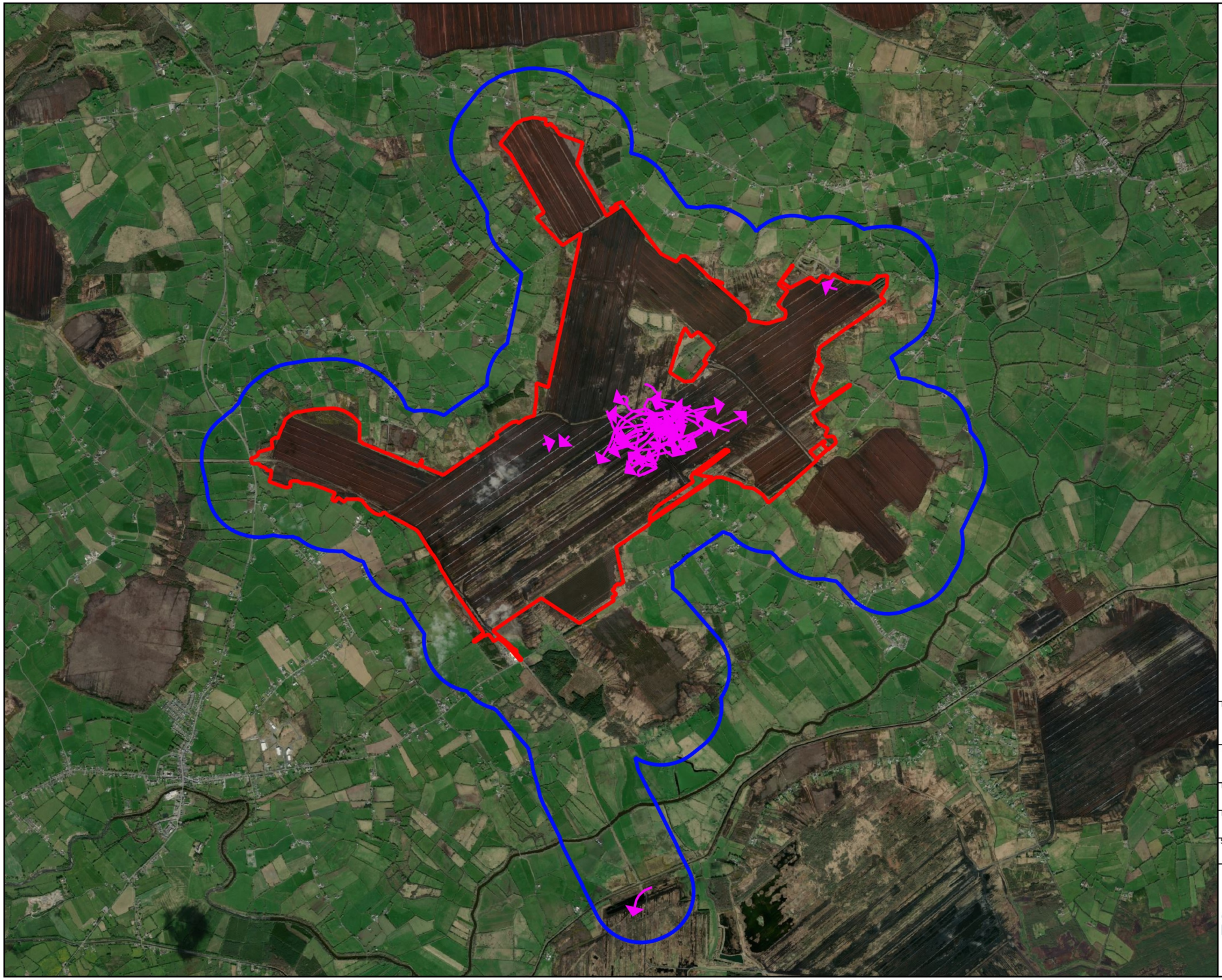
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Drawing Title
Lapwing Observations Apr23-Mar25
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.1d
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title

Lapwing Observations
Breeding Walkover Surveys

Project Title

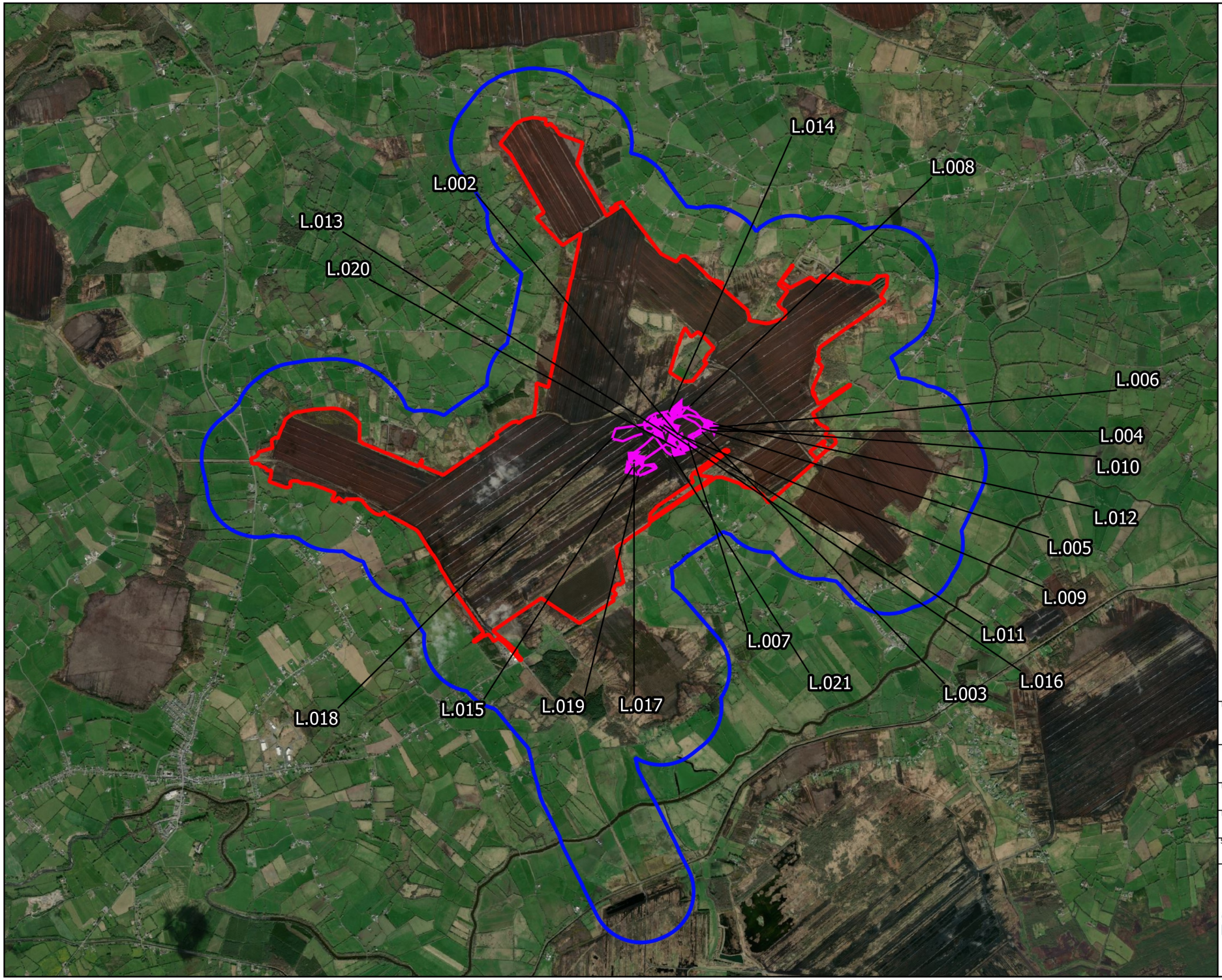
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 9.2
Scale	Date
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Observations of Lapwing from Breeding Walkover Surveys have been further divided across the following Figures in order to improve readability:

- Figure 9-2a – Lapwing Breeding Walkover Survey Data - Breeding Season 2023
- Figure 9-2b – Lapwing Breeding Walkover Survey Data - Breeding Season 2024



Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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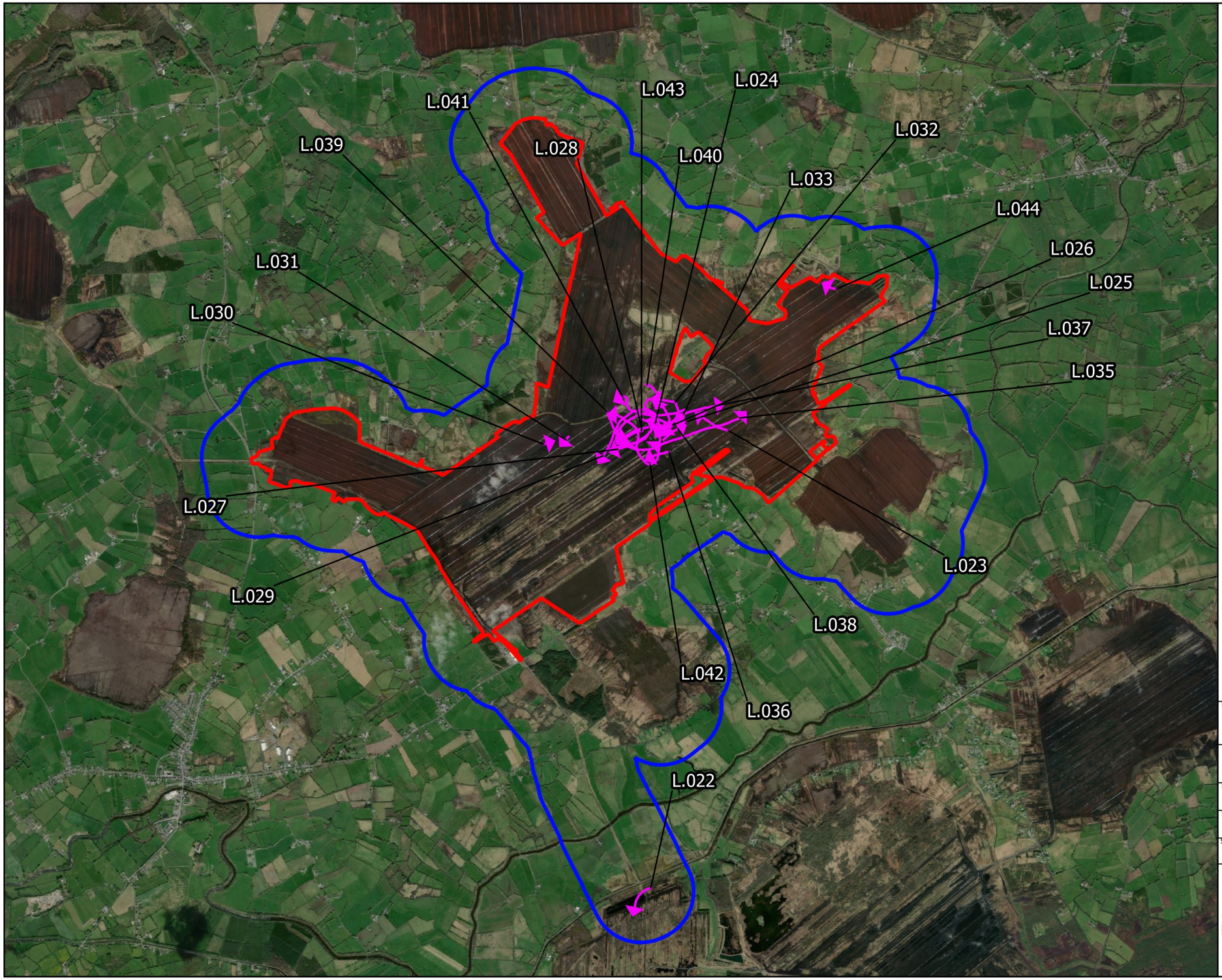
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Drawing Title
Lapwing Observations 2023
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.2a
Scale	Date
1:50,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Lapwing Observations 2024
Breeding Walkover Surveys

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Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.2b
Scale	Date
1:50,000	17.07.2025

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Map Legend

Application Site Boundary

Flight Observation

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Drawing Title

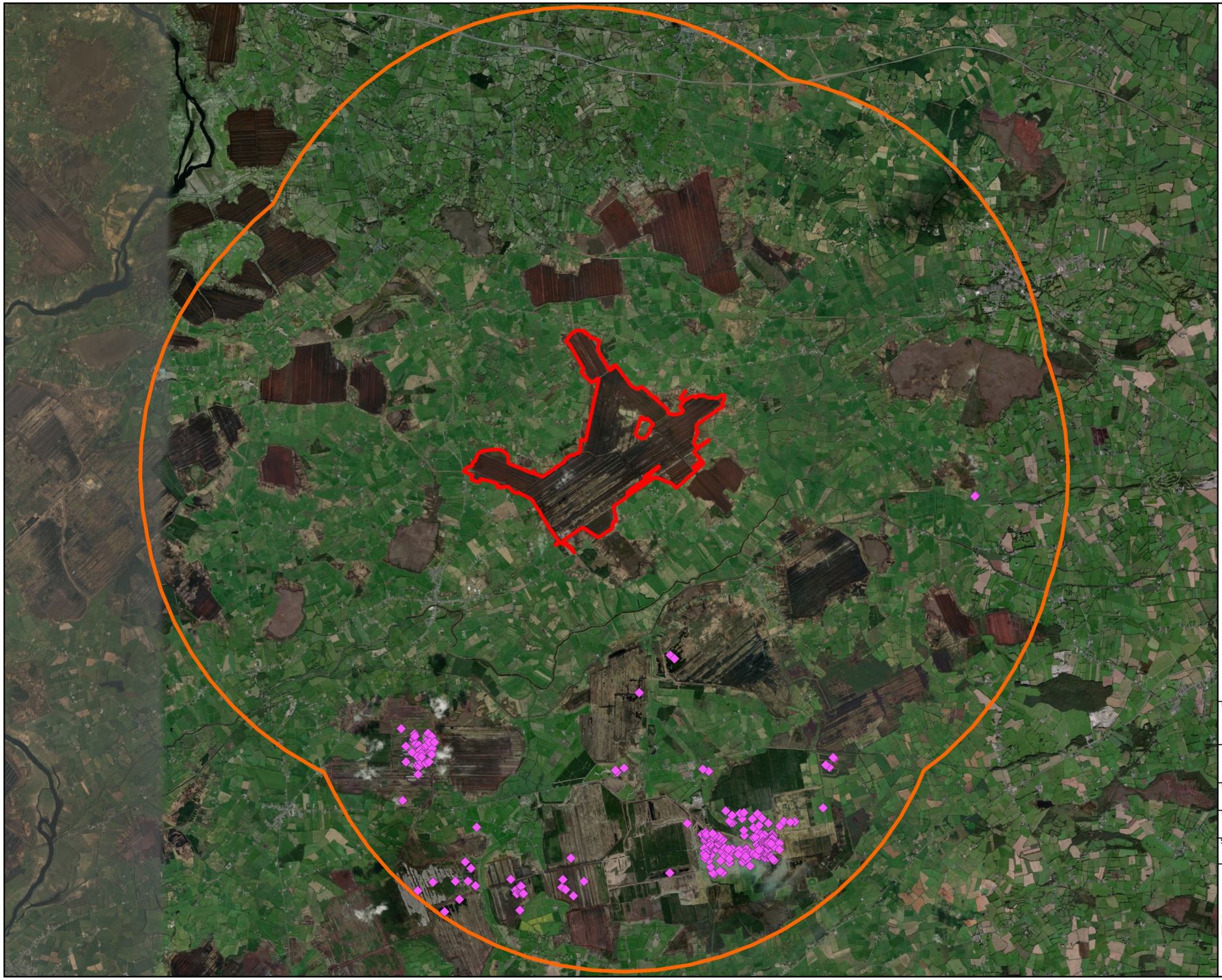
Lapwing Observations
Winter Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.3
Scale	Date
1:35,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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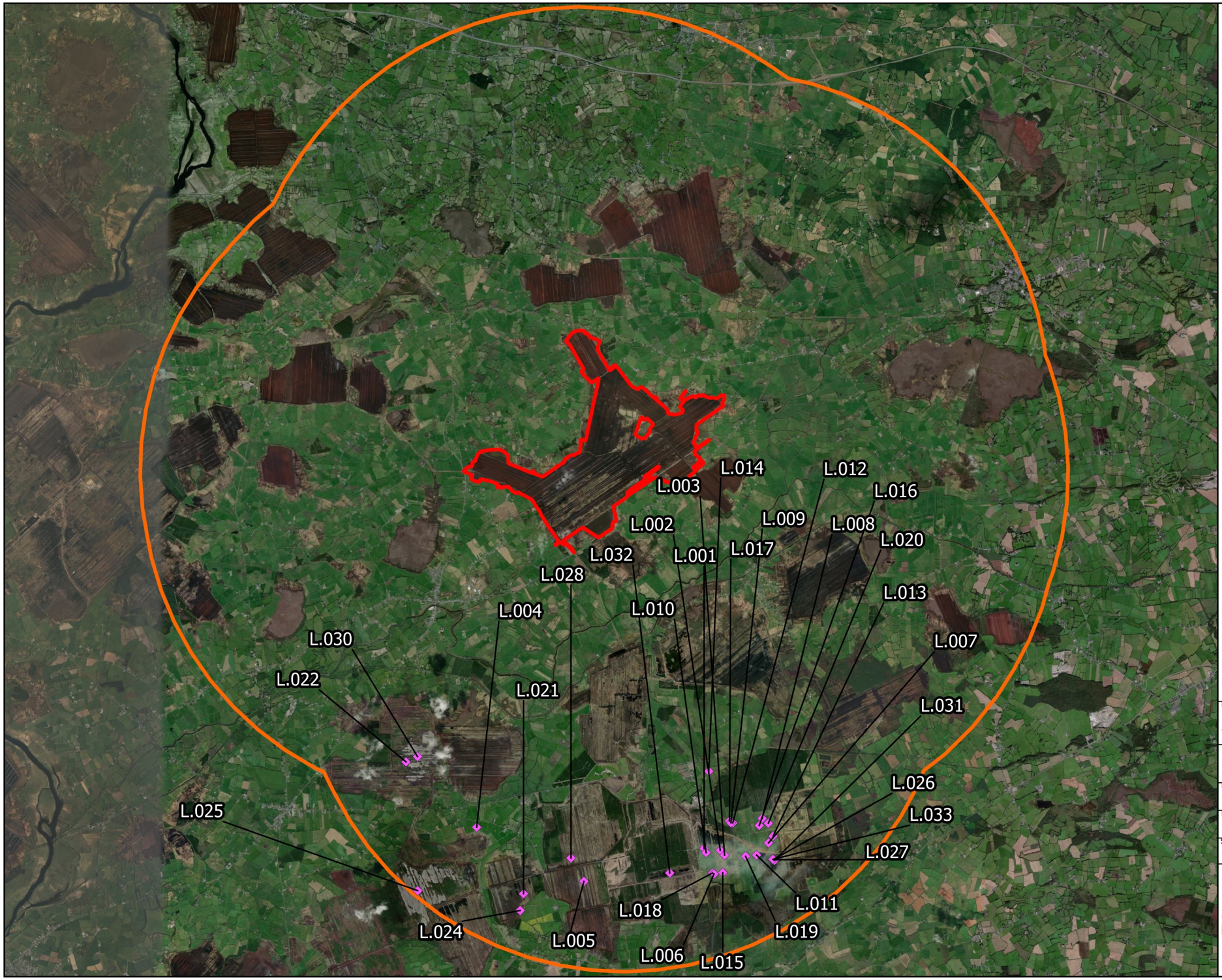
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Drawing Title	Lapwing Observations Waterbird Distribution and Abundance Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 9.4
Scale: 1:122,000	Date: 17.07.2025

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Observations of Lapwing form Waterbird Distribution and Abundance Surveys have been further divided across the following Figures in order to improve readability:

- Figure 9-4a – Lapwing Waterbird and Distribution Survey Data - Winter Season 2020/21
- Figure 9-4b – Lapwing Waterbird and Distribution Survey Data - Breeding Season 2021 (April & May)
- Figure 9-4c – Lapwing Waterbird and Distribution Survey Data - Winter Season 2022/22
- Figure 9-4d – Lapwing Waterbird and Distribution Survey Data - Breeding Season 2022 (April & May)
- Figure 9-4e – Lapwing Waterbird and Distribution Survey Data - Winter Season 2022/23
- Figure 9-4f – Lapwing Waterbird and Distribution Survey Data - Breeding Season 2023 (April & May)
- Figure 9-4g – Lapwing Waterbird and Distribution Survey Data - Winter Season 2023/24
- Figure 9-4h – Lapwing Waterbird and Distribution Survey Data - Breeding Season 2024 (April & May)
- Figure 9-4i – Lapwing Waterbird and Distribution Survey Data - Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

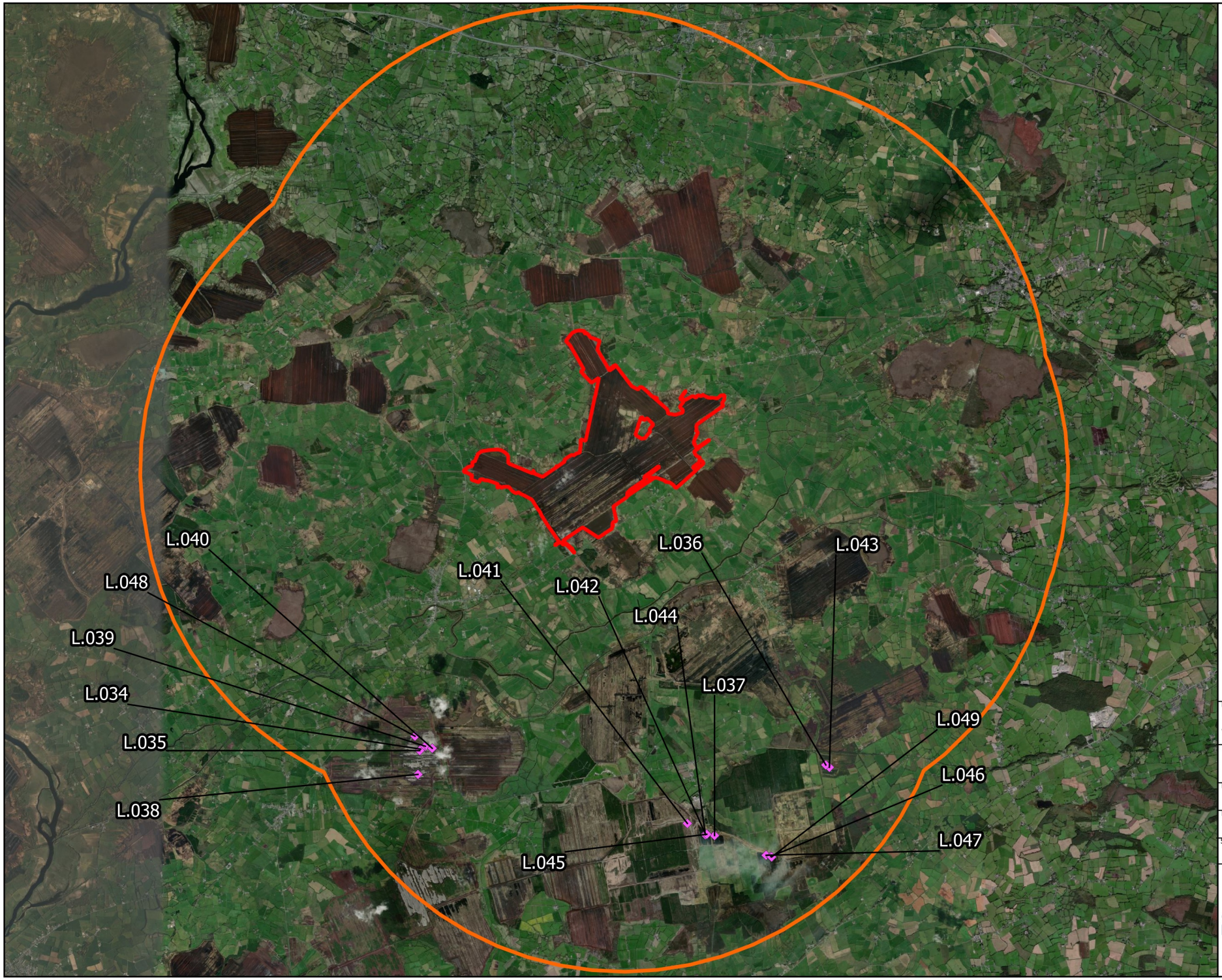
Lapwing Observations Winter 2020/21
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4a
Scale	Date
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Map Legend

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- Observation

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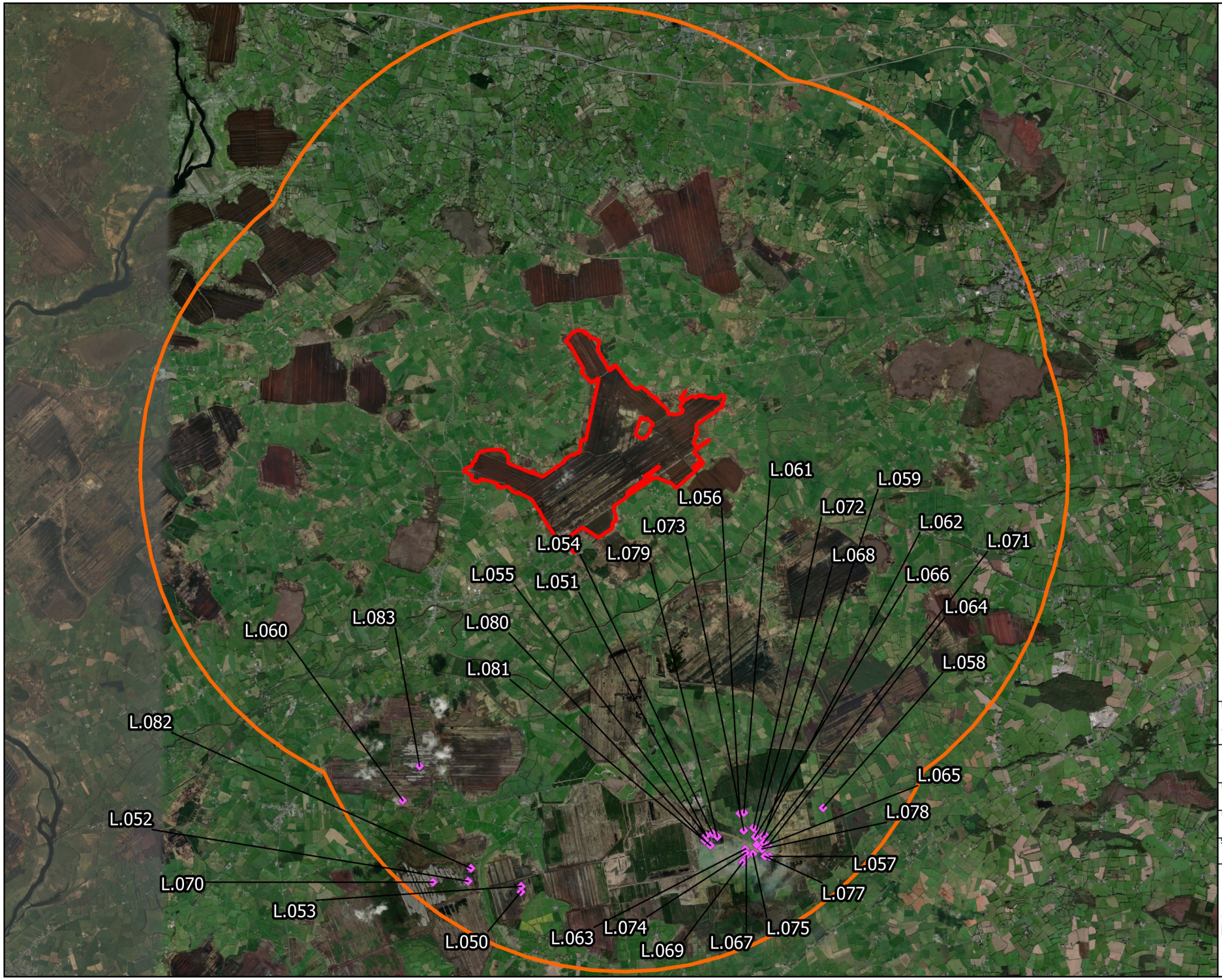
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Drawing Title
Lapwing Observations Breeding 2021
Waterbird Distribution and Abundance Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4b
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1:122,000	17.07.2025

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Map Legend

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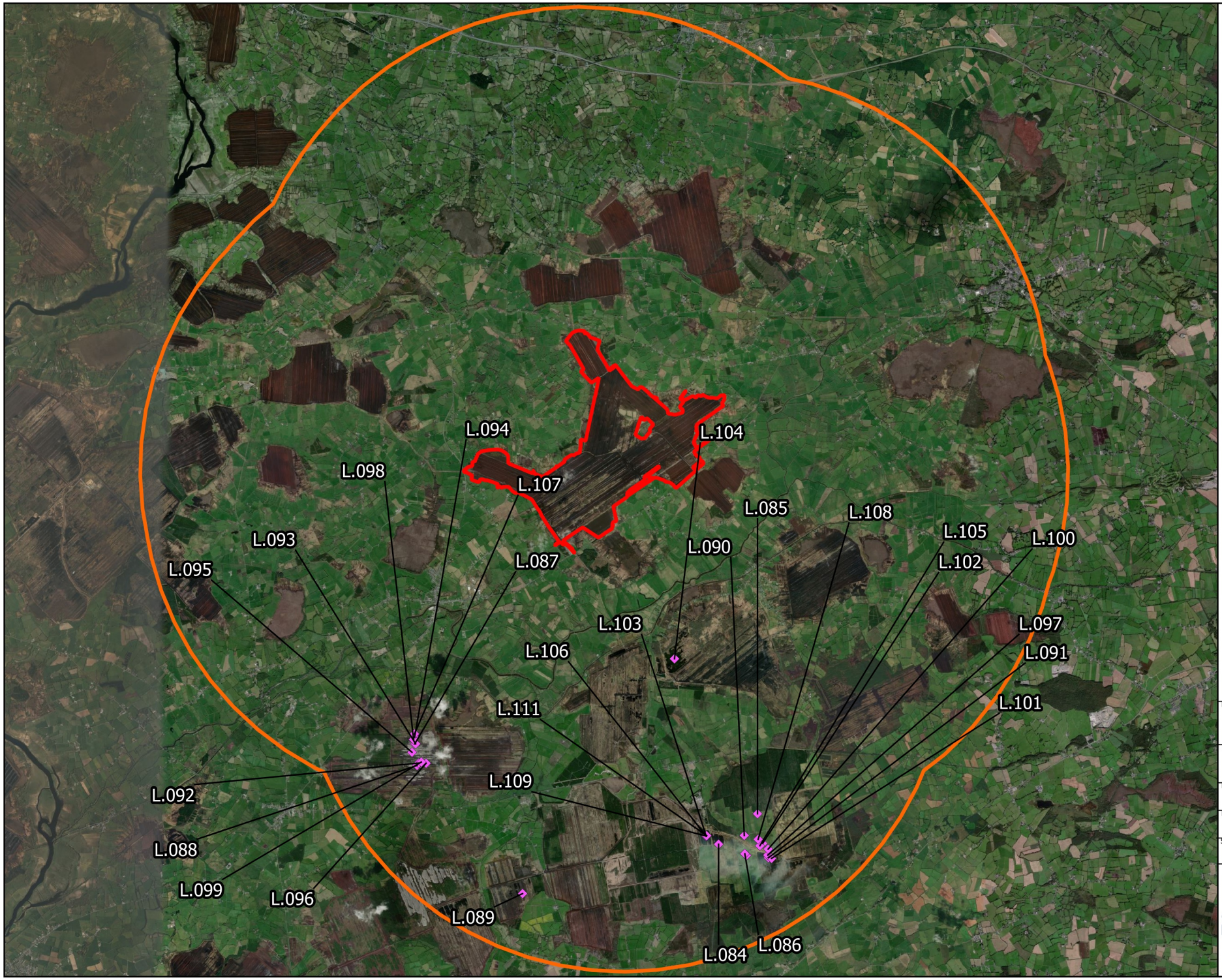
Lapwing Observations Winter 2021/22
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4c
Scale	Date
1:122,000	17.07.2025

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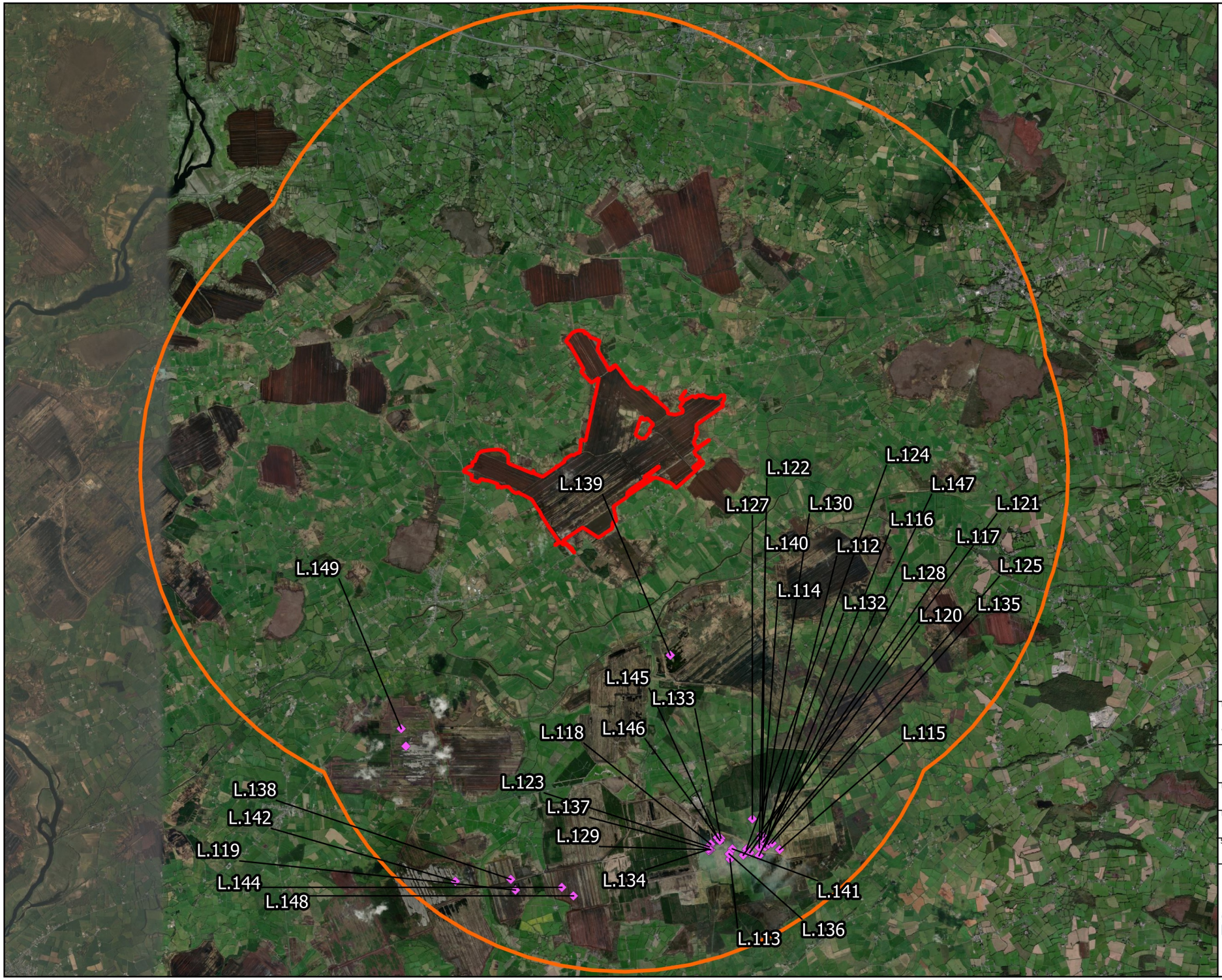
Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Lapwing Observations Breeding 2022 Waterbird Distribution and Abundance Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 9.4d
Scale: 1:122,000	Date: 17.07.2025

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Map Legend

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- Observation

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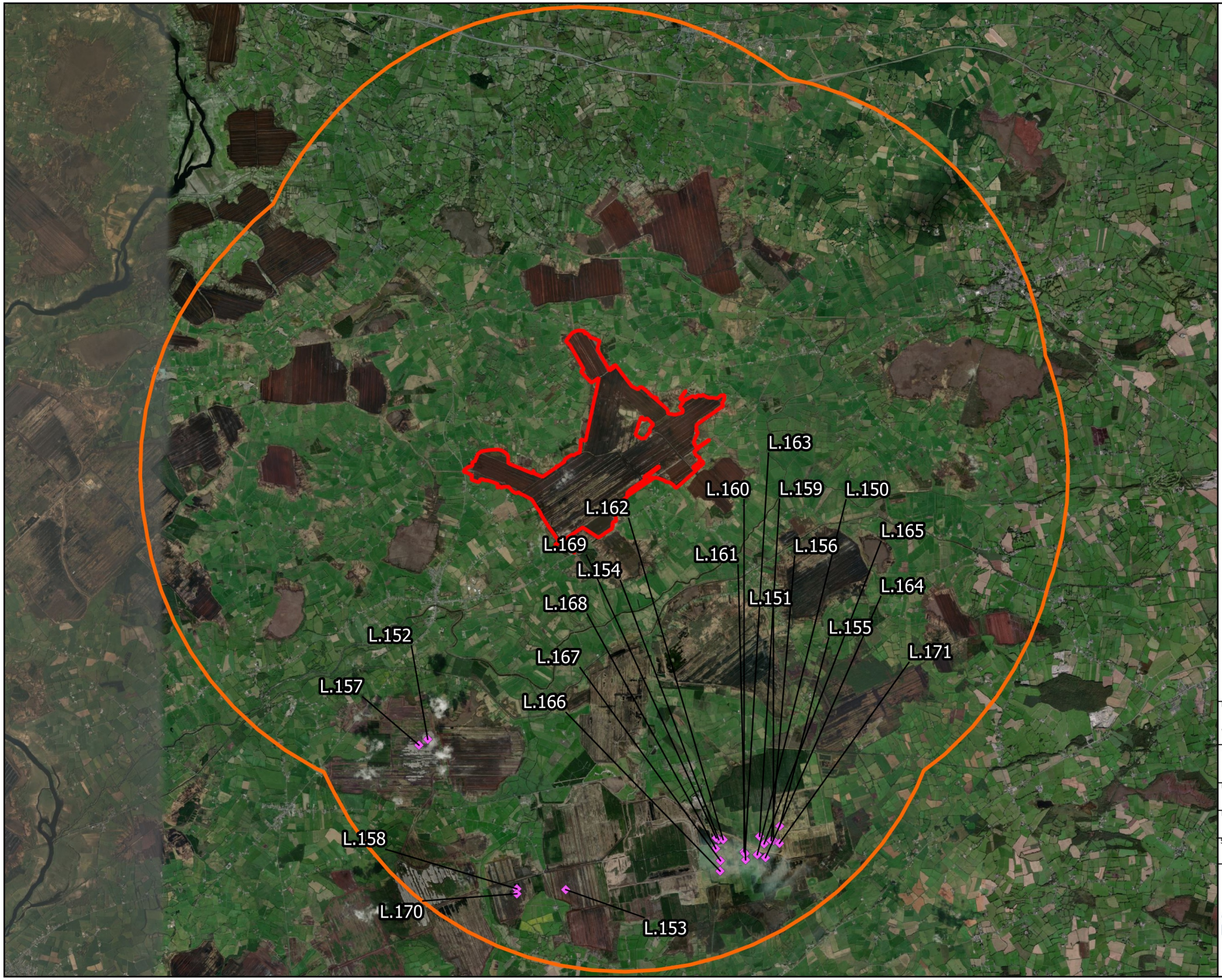
Lapwing Observations Winter 2022/23
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4e
Scale	Date
1:122,000	17.07.2025

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Map Legend

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Drawing Title

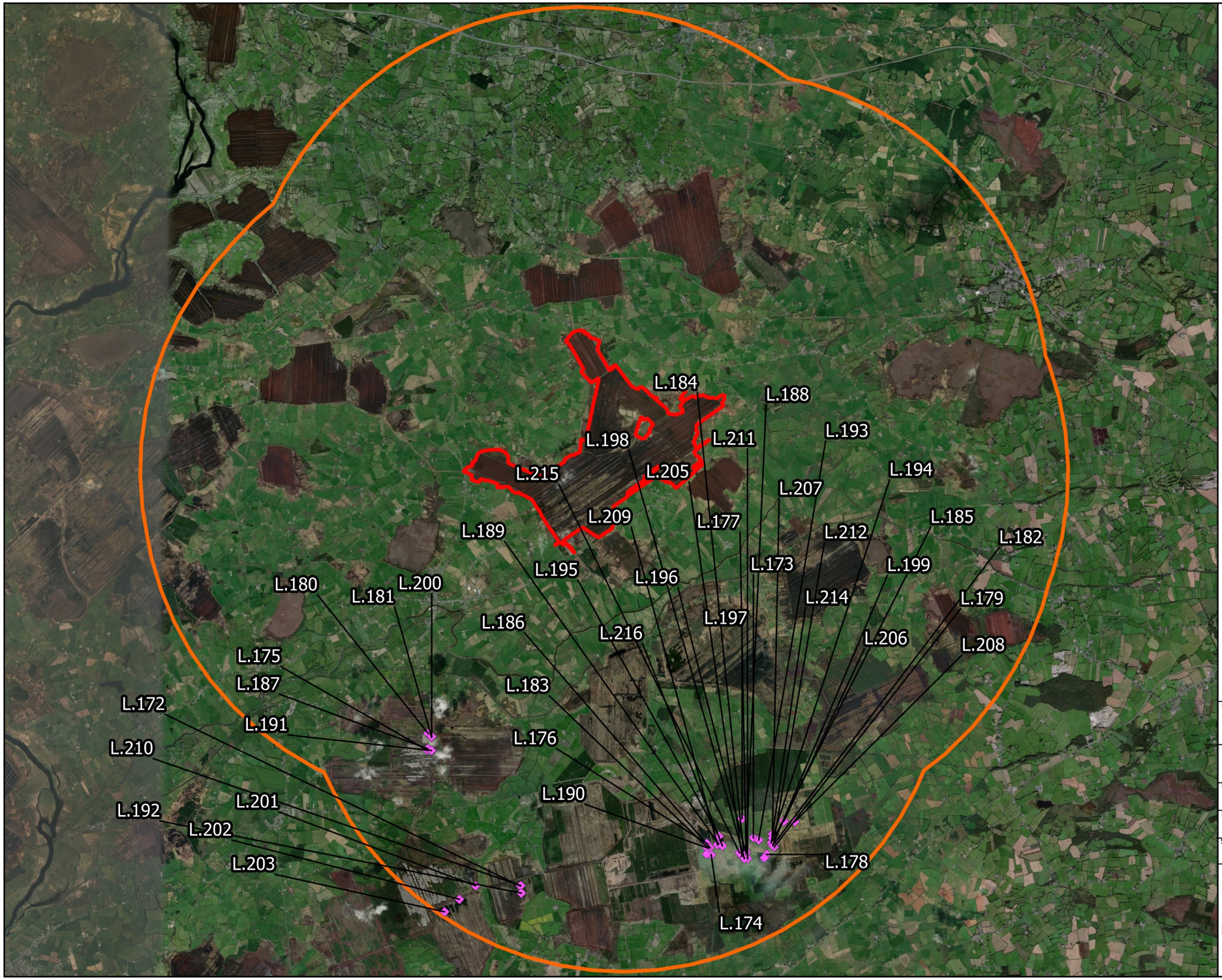
Lapwing Observations Breeding 2023
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4f
Scale	Date
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Map Legend

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- Observation

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Drawing Title: Lapwing Observations Winter 2023/24 Waterbird Distribution and Abundance Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 9.4g
Scale	Date
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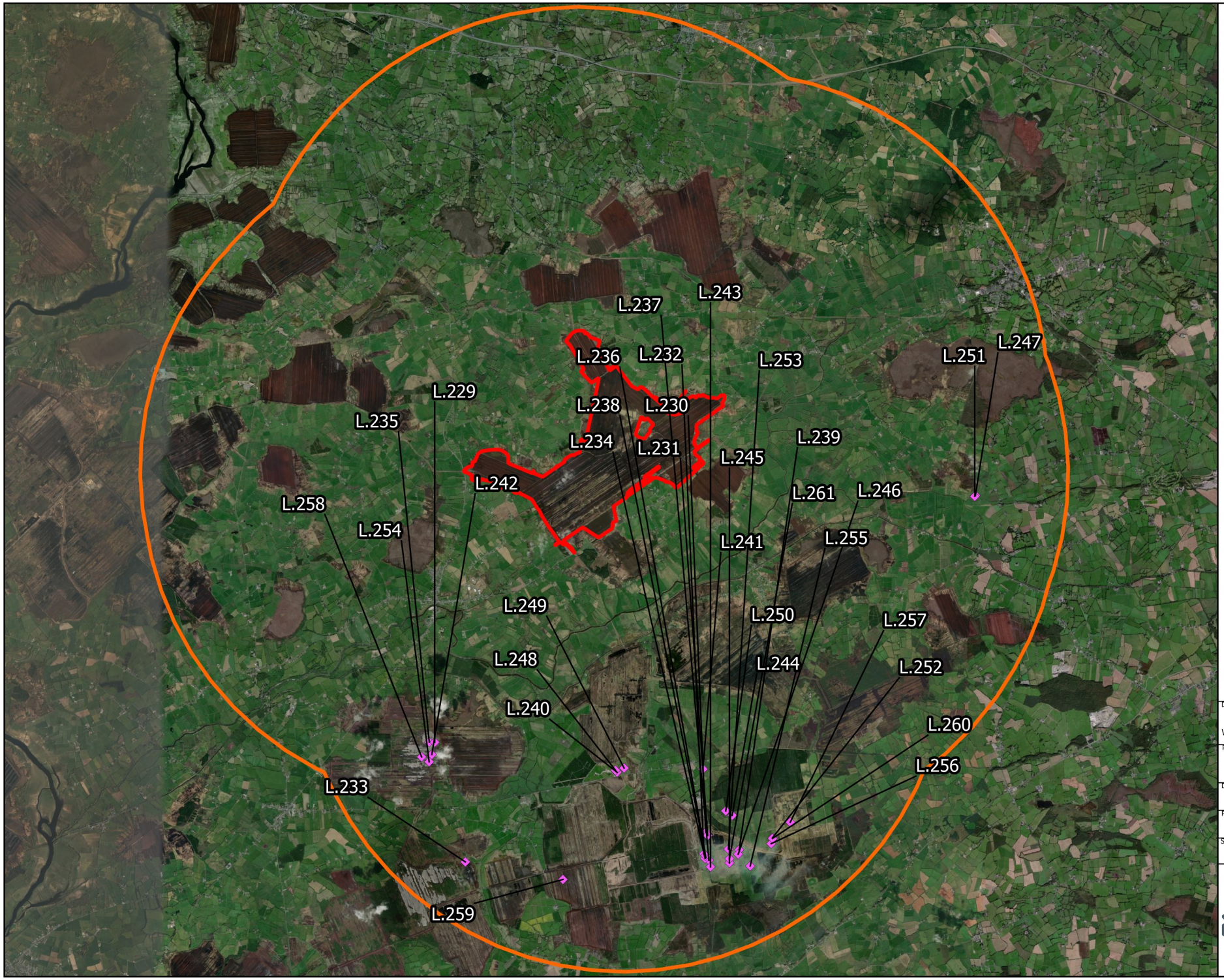
Lapwing Observations Breeding 2024
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4h
Scale	Date
1:122,000	17.07.2025

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Drawing Title

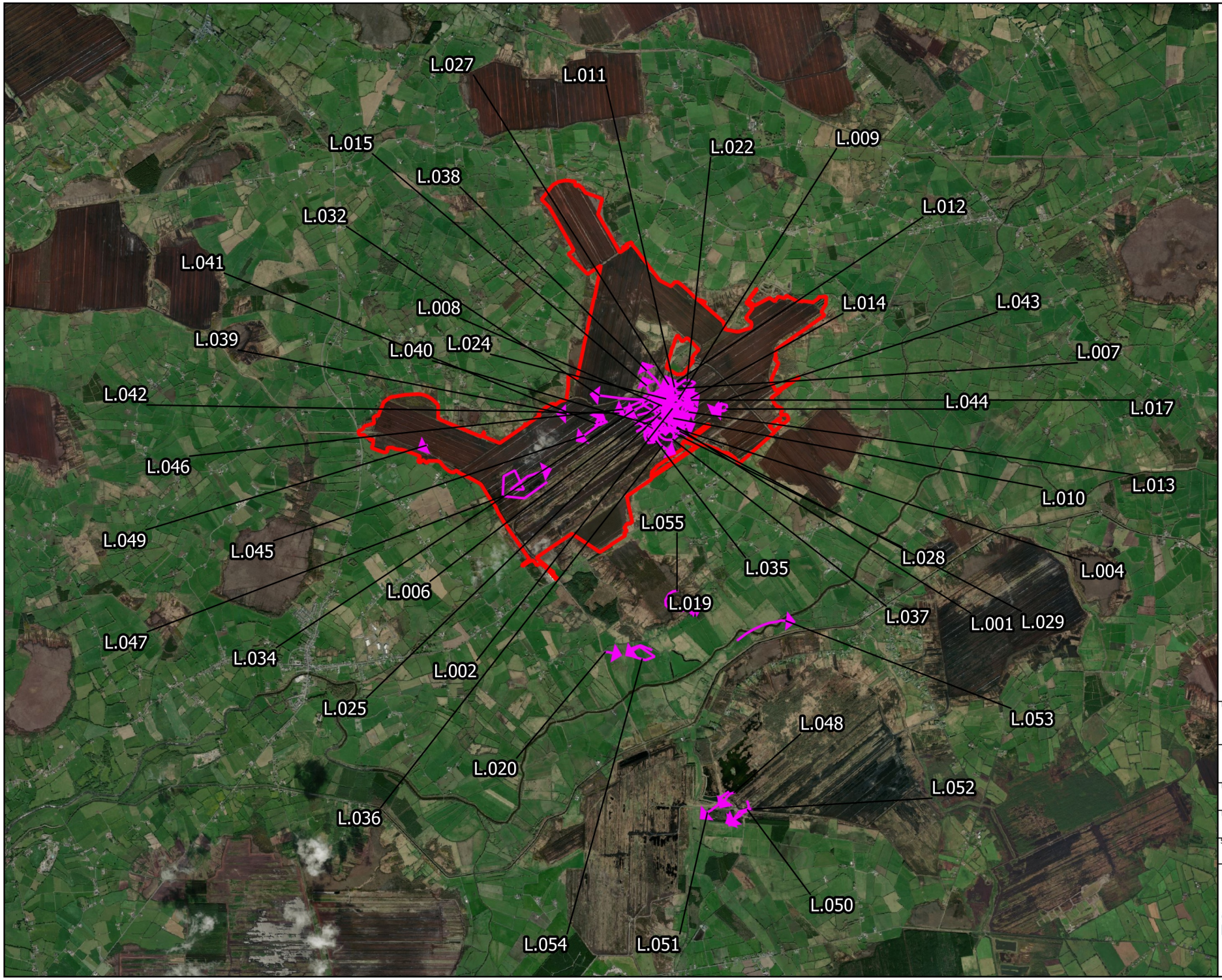
Lapwing Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.4i
Scale	Date
1:122,000	17.07.2025

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Map Legend

Application Site Boundary

Observation

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Drawing Title

Lapwing
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 9.5
Scale	Date
1:68,000	17.07.2025

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10. BLACK-HEADED GULL

Table 10-1 Black-headed Gull Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BH001	VP6	22/02/2021	13:00	Black-headed Gull	1	188	0	0	188	0	cutover bog and improved agricultural grassland; travelling	JH
BH002	VP5	11/03/2021	12:14	Black-headed Gull	2	156	30	50	76	0	improved agricultural grassland and cutover bog; circling and flying on	JH
BH003	VP2	25/05/2021	09:20	Black-headed Gull	1	43	0	0	43	0	improved agricultural grassland; flying, flying sw seen over trees	SOB
BH004	VP6	08/06/2021	18:44	Black-headed Gull	2	37	0	37	0	0	improved agricultural grassland; flying, two black headed gulls flying west over fields lost sight behind line of trees	SOB
BH005	VP2	14/06/2021	17:57	Black-headed Gull	1	93	0	10	83	0	improved agricultural grassland, cutover bog and treelines; flying, gliding, black headed gull flying slowly against wind then turned around and glided quickly with wind. then lowered flight elevation, lost sight behind trees.	SOB
BH006	VP2	14/06/2021	18:08	Black-headed Gull	2	84	0	0	84	0	scrub and improved agricultural grassland; flying, 2 black-headed gulls flying alongside the edge of the bog. then went across the bog.	SOB
BH007	VP2	14/06/2021	20:30	Black-headed Gull	1	88	0	8	80	0	cutover bog and scrub; gliding, flying, black-headed gulls flying across stretch of bog then along border of bog flew lower lost sight behind trees	SOB
BH008	VP2	14/06/2021	20:52	Black-headed Gull	1	83	0	0	83	0	cutover bog; flying, juvenile flying south	SOB
BH009	VP4	23/06/2021	15:25	Black-headed Gull	1	60	0	0	60	0	improved agricultural grassland; flying, black headed gull flying ne	SOB
BH010	VP4	23/06/2021	19:44	Black-headed Gull	1	5	0	5	0	0	#N/A	SOB
BH011	VP5	12/01/2023	15:14	Black-headed Gull	1	75	20	23	32	0	cutover bog and improved grassland; flying	CR
BH012	VP4	08/06/2023	17:19	Black-headed Gull	1	108	9	99	0	0	cutover bog and improved grassland; flying	CR
BH013	VP1	24/05/2024	10:15	Black-headed Gull	1	25	0	10	15	0	cutover bog; commuting	CG

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BH014	VP1	18/06/2024	07:49	Black-headed Gull	1	11	11	0	0	0	scrub/transitional woodland and bogs; travelling, briefly seen flying above scrub	PDC
BH015	VP5	18/06/2024	12:55	Black-headed Gull	3	6	0	6	0	0	highly modified/non-native woodland; flying	NL
BH016	VP6	16/07/2024	08:58	Black-headed Gull	1	54	54	0	0	0	bogs; travelling	PDC

Table 10-2 Black-headed Gull Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BH001	16/06/2021	16:28	-	Black-headed Gull	5	improved agricultural grassland; flying/landing to feed on ag. grassland, recently cut silage fields (flyover; non-breeding)	TR
BH002	09/05/2022	13:21	-	Black-headed Gull	4	depositing/lowland rivers and improved grassland; flying (flyover; non-breeding)	CR
BH003	28/06/2023	19:35	-	Black-headed Gull	1	cutover bog and improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BH004	27/05/2024	09:11	T1	Black-headed Gull	1	bogs and improved agricultural grassland; travelling (flyover; non-breeding)	PDC
BH005	24/06/2024	11:25	T1	Black-headed Gull	23	improved agricultural grassland; foraging, foraging in recently mown field (fledged young; confirmed breeding)	PDC
BH006	22/07/2024	07:46	T1	Black-headed Gull	13	improved agricultural grassland; travelling (flyover; non-breeding)	PDC

Table 10-3 Black-headed Gull Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH001	Boora	25/01/2021		Black-headed Gull	5	acid oligotrophic lakes; roosting	JH
BH002	Lough Boora	23/04/2021	13:45	Black-headed Gull	18	acid oligotrophic lakes; flying/nesting, a lot of bh gull are nesting on islands/rocks in the lake. some are flying with gusts of wind.	SOB
BH003	Noggusduff	25/02/2021	11:26	Black-headed Gull	8	cutover bog and acid oligotrophic lakes; roosting	JH
BH004	Boora	25/02/2021	13:45	Black-headed Gull	10	acid oligotrophic lakes; roosting	JH
BH005	Boora	25/02/2021	13:46	Black-headed Gull	4	acid oligotrophic lakes; roosting	JH

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH006	Noggusduff	15/03/2021	07:15	Black-headed Gull	2	lakes and ponds; feeding	PT
BH007	Lough Boora	15/03/2021	12:30	Black-headed Gull	25	lakes and ponds; in flight/ resting	PT
BH008	Tumduff Beag	15/03/2021	14:10	Black-headed Gull	3	lakes and ponds; resting	PT
BH009	Tarraun	15/03/2021	17:00	Black-headed Gull	4	lakes and ponds; in flight	PT
BH010	Drinagh	30/03/2021	08:10	Black-headed Gull	5	lakes and ponds; flying	PT
BH011	Derrybrat	30/03/2021	10:05	Black-headed Gull	4	lakes and ponds; swimming	PT
BH012	Noggusduff	30/03/2021	10:50	Black-headed Gull	25	lakes and ponds; flying, few settled	PT
BH013	Tarraun	30/03/2021	12:40	Black-headed Gull	4	lakes and ponds; swimming	PT
BH014	Lough Boora	30/03/2021	15:10	Black-headed Gull	8	lakes and ponds; swimming	PT
BH015	Tumduff Beag	30/03/2021	15:15	Black-headed Gull	17	lakes and ponds; swimming, resting	PT
BH016	Finnamore Lakes	30/03/2021	15:40	Black-headed Gull	6	lakes and ponds; flying, foraging	PT
BH017	R437	23/04/2021	11:57	Black-headed Gull	6	cutover bog, dystrophic lakes and reed and large sedge swamps; preening/resting/flying, black headed gulls, resting and preening on cut peat, and riding gusts of wind.	SOB
BH018	Finnamore Lakes	23/04/2021	14:57	Black-headed Gull	2	other artificial lakes and ponds; flying, 2 black headed gulls flying around the central and southern lakes.	SOB
BH019	Tarraun	23/04/2021	16:09	Black-headed Gull	4	reed and large sedge swamps and dystrophic lakes; flying, black headed gulls flew overhead, did not land	SOB
BH020	Tarraun	23/04/2021	16:30	Black-headed Gull	4	dystrophic lakes; flying, black headed gulls circling upwards above tarraun lake	SOB
BH021	R437	29/04/2021	10:34	Black-headed Gull	8	dystrophic lakes, reed and large sedge swamps and cutover bog; flyng/resting/preening, bh riding updrafts circling around lake and reeds then perching on small bare peat islands on lake.	SOB
BH022	Cloghan Lake	29/04/2021	11:44	Black-headed Gull	1	other artificial lakes and ponds, improved agricultural grassland and bog woodland; flying, flying overhead past the lake heading sw	SOB

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH023	Finnamore Lakes	29/04/2021	13:18	Black-headed Gull	1	other artificial lakes and ponds; flying, circling around lakes	SOB
BH024	Tarraun	29/04/2021	14:32	Black-headed Gull	5	dystrophic lakes; flying, bh flying over lake	SOB
BH025	Lough Boora	29/04/2021	15:35	Black-headed Gull	14	acid oligotrophic lakes and cutover bog; flying/nesting, bh flying around the lake. nest on log and rock islands in the lake	SOB
BH026	Noggusduff	18/05/2021	14:52	Black-headed Gull	35	lakes and ponds and cutover bog; flying, breeding, feeding	JG
BH027	Canal	18/05/2021	17:28	Black-headed Gull	1	lakes and ponds and improved grassland; flying	JG
BH028	Lough Toran	18/05/2021	17:29	Black-headed Gull	3	lakes and ponds; flying	JG
BH029	Finnamore Lakes	18/05/2021	18:22	Black-headed Gull	2	lakes and ponds; flying	JG
BH030	Lough Boora	18/05/2021	19:06	Black-headed Gull	8	lakes and ponds; roosting, feeding, flying	JG
BH031	Lough Boora	18/05/2021	19:06	Black-headed Gull	2	lakes and ponds; flying	JG
BH032	Cloghan Lake	27/05/2021	13:53	Black-headed Gull	2	lakes and ponds; flying overhead	JG
BH033	Noggusduff	27/05/2021	15:23	Black-headed Gull	40	acid oligotrophic lakes and cutover bog; flying/roosting/preening	JG
BH034	Finnamore Lakes	27/05/2021	18:12	Black-headed Gull	1	acid oligotrophic lakes and amenity grassland (improved); flying, circling around	JG
BH035	Boora	27/05/2021	18:42	Black-headed Gull	1	acid oligotrophic lakes; flying	JG
BH036	Noggusduff	03/08/2021	12:42	Black-headed Gull	5	acid oligotrophic lakes and cutover bog; flying/restin, 3 juvenile, 2 adults	JG
BH037	Lough Boora	03/08/2021	15:02	Black-headed Gull	2	lakes and ponds; roosting	JG
BH038	Lough Boora	17/08/2021	16:21	Black-headed Gull	2	acid oligotrophic lakes; flying/roosting	JG
BH039	Lough Boora	01/09/2021	16:15	Black-headed Gull	2	dystrophic lakes and reed and large sedge swamps; resting	SOB
BH040	Lough Boora	14/09/2021	19:20	Black-headed Gull	2	mesotrophic lakes; preening, perched, 2 black headed gulls preening on rock in lake	SOB

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH041	Tumduff	09/02/2022	13:00	Black-headed Gull	3	lakes and ponds; flying	CR
BH042	Lough Boora	09/02/2022	13:07	Black-headed Gull	7	lakes and ponds; flying	CR
BH043	Turraun Nature Park	24/02/2022	10:21	Black-headed Gull	17	lakes and ponds; flying	CR
BH044	Finnamore Lakes	24/02/2022	11:04	Black-headed Gull	2	lakes and ponds; flying	CR
BH045	Tumduff	24/02/2022	12:31	Black-headed Gull	4	lakes and ponds; flying	CR
BH046	Lough Boora	24/02/2022	12:46	Black-headed Gull	20	lakes and ponds; flying	CR
BH047	Noggusduff	24/02/2022	15:48	Black-headed Gull	11	lakes and ponds; flying	CR
BH048	Finnamore Lakes	16/03/2022	13:05	Black-headed Gull	9	lakes and ponds and highly modified/non-native woodland; flying	CR
BH049	Tumduff	16/03/2022	14:51	Black-headed Gull	7	lakes and ponds; flying	CR
BH050	Lough Boora	16/03/2022	14:55	Black-headed Gull	12	lakes and ponds; flying	CR
BH051	Derrybrat	16/03/2022	15:38	Black-headed Gull	2	lakes and ponds; flying	CR
BH052	Noggusduff	16/03/2022	17:55	Black-headed Gull	15	lakes and ponds; flying	CR
BH053	Noggusduff	16/03/2022	18:25	Black-headed Gull	11	lakes and ponds; flying	CR
BH054	Lough Boora	01/04/2022	10:53	Black-headed Gull	2	watercourses and mixed broadleaved/conifer woodland; travelling	KS
BH055	Lough Boora	02/04/2022	10:35	Black-headed Gull	6	watercourses; foraging	KS
BH056	Lough Boora	01/04/2022	10:35	Black-headed Gull	6	watercourses; on water	KS
BH057	Finnamore Lakes	01/04/2022	12:05	Black-headed Gull	12	watercourses; roosting	KS
BH058	Turraun Nature Park	01/04/2022	12:50	Black-headed Gull	2	watercourses; on water	KS

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH059	N62	01/04/2022	13:20	Black-headed Gull	8	watercourses and semi-natural grassland; foraging	KS
BH060	cloghan	01/04/2022	14:15	Black-headed Gull	8	watercourses; on water	KS
BH061	Noggusduff	12/04/2022	12:57	Black-headed Gull	25	turloughs; flying	CR
BH062	Noggusduff	12/04/2022	13:15	Black-headed Gull	85	turloughs; flying	CR
BH063	Drinagh	12/04/2022	15:40	Black-headed Gull	24	turloughs and conifer plantation; flying	CR
BH064	Tumduff	12/04/2022	16:11	Black-headed Gull	17	improved grassland and lakes and ponds; flying	CR
BH065	Tumduff	12/04/2022	16:54	Black-headed Gull	10	lakes and ponds; flying	CR
BH066	Lough Boora	12/04/2022	17:09	Black-headed Gull	15	lakes and ponds; flying	CR
BH067	Tumduff	26/04/2022	12:37	Black-headed Gull	24	lakes and ponds, conifer plantation and improved grassland; flying	CR
BH068	Tumduff	26/04/2022	13:22	Black-headed Gull	10	lakes and ponds; flying	CR
BH069	Lough Boora	26/04/2022	13:33	Black-headed Gull	16	lakes and ponds; flying	CR
BH070	Finnamore Lakes	26/04/2022	14:50	Black-headed Gull	4	lakes and ponds; in the water	CR
BH071	Noggusduff	26/04/2022	18:08	Black-headed Gull	45	turloughs; flying	CR
BH072	Noggusduff	26/04/2022	18:26	Black-headed Gull	39	turloughs; flying	CR
BH073	Noggusduff	11/05/2022	12:03	Black-headed Gull	13	turloughs and highly modified/non-native woodland; flying	CR
BH074	Noggusduff	11/05/2022	12:15	Black-headed Gull	22	turloughs; flying	CR
BH075	Noggusduff	11/05/2022	12:46	Black-headed Gull	14	turloughs; flying	CR
BH076	Derrybrat	11/05/2022	14:10	Black-headed Gull	2	conifer plantation and turloughs; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH077	Tumduff	11/05/2022	15:46	Black-headed Gull	6	lakes and ponds; flying	CR
BH078	Lough Boora	11/05/2022	15:53	Black-headed Gull	8	lakes and ponds; flying	CR
BH079	Noggusduff	27/05/2022	13:08	Black-headed Gull	8	turloughs; flying	CR
BH080	Noggusduff	27/05/2022	13:20	Black-headed Gull	15	turloughs; flying	CR
BH081	Noggusduff	27/05/2022	13:41	Black-headed Gull	18	turloughs; flying	CR
BH082	Tumduff	27/05/2022	19:45	Black-headed Gull	5	lakes and ponds; flying	CR
BH083	Tumduff	27/05/2022	20:10	Black-headed Gull	12	lakes and ponds; flying	CR
BH084	Lough Boora	27/05/2022	20:24	Black-headed Gull	20	lakes and ponds; flying	CR
BH085	Lough Boora	31/08/2022	16:42	Black-headed Gull	3	lakes and ponds; flying	CR
BH086	Lough Boora	15/09/2022	16:56	Black-headed Gull	10	lakes and ponds; flying	CR
BH087	Lough Boora	30/09/2022	16:04	Black-headed Gull	2	lakes and ponds; flying	CR
BH088	Lough Boora	08/02/2023	14:43	Black-headed Gull	14	lakes and ponds; flying	CR
BH089	Turraun Nature Park	21/02/2023	08:42	Black-headed Gull	2	lakes and ponds; flying	CR
BH090	Finnamore Lakes	21/02/2023	09:19	Black-headed Gull	14	lakes and ponds; flying	CR
BH091	Tumduff	21/02/2023	11:03	Black-headed Gull	3	lakes and ponds; flying	CR
BH092	Lough Boora	21/02/2023	11:44	Black-headed Gull	30	lakes and ponds; flying	CR
BH093	Noggusduff	07/03/2023	11:15	Black-headed Gull	15	lakes and ponds; flying	CR
BH094	Finnamore Lakes	07/03/2023	15:46	Black-headed Gull	5	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH095	Lough Boora	07/03/2023	15:58	Black-headed Gull	30	lakes and ponds; flying	CR
BH096	Tumduff	21/03/2023	13:00	Black-headed Gull	9	lakes and ponds; flying	CR
BH097	Noggusduff	21/03/2023	15:31	Black-headed Gull	7	lakes and ponds; flying	CR
BH098	Noggusduff	12/04/2023	13:16	Black-headed Gull	6	lakes and ponds; flying	CR
BH099	Noggusduff	12/04/2023	13:50	Black-headed Gull	3	lakes and ponds; flying	CR
BH100	Tumduff	12/04/2023	18:00	Black-headed Gull	18	lakes and ponds; flying	CR
BH101	Turraun Nature Park	12/04/2023	18:33	Black-headed Gull	21	lakes and ponds; flying	CR
BH102	Noggusduff	26/04/2023	11:16	Black-headed Gull	43	lakes and ponds; flying	CR
BH103	Noggusduff	26/04/2023	11:41	Black-headed Gull	15	lakes and ponds; flying/roosting, pair of birds observed mating	CR
BH104	Tumduff	26/04/2023	14:20	Black-headed Gull	8	lakes and ponds; flying	CR
BH105	Tumduff	26/04/2023	14:42	Black-headed Gull	7	lakes and ponds; flying	CR
BH106	Noggusduff	12/05/2023	13:10	Black-headed Gull	10	lakes and ponds; flying/calling	CR
BH107	Noggusduff	12/05/2023	13:44	Black-headed Gull	8	lakes and ponds; flying/calling	CR
BH108	Tumduff	12/05/2023	17:25	Black-headed Gull	7	lakes and ponds; roosting/flying	CR
BH109	Finnamore Lakes	25/05/2023	11:42	Black-headed Gull	2	lakes and ponds; flying	CR
BH110	Tumduff	25/05/2023	14:11	Black-headed Gull	11	lakes and ponds; flying/roosting	CR
BH111	Noggusduff	25/05/2023	17:48	Black-headed Gull	6	lakes and ponds; flying	CR
BH112	Noggusduff	03/01/2024	11:47	Black-headed Gull	1	lakes and ponds; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH113	Finnamore Lakes	30/01/2024	12:06	Black-headed Gull	1	lakes and ponds; flying	CR
BH114	Lough Boora	12/02/2024	16:13	Black-headed Gull	8	lakes and ponds; flying	CR
BH115	Tumduff	27/02/2024	10:50	Black-headed Gull	1	lakes and ponds; flying	CR
BH116	Finnamore Lakes	27/02/2024	11:35	Black-headed Gull	3	lakes and ponds and scrub/transitional woodland; flying	CR
BH117	Tumduff	13/03/2024	17:49	Black-headed Gull	15	lakes and ponds; flying, resting	CR
BH118	Derrybrat	26/03/2024	13:47	Black-headed Gull	2	lakes and ponds; flying	CR
BH119	Tumduff	26/03/2024	16:00	Black-headed Gull	8	lakes and ponds; resting	CR
BH120	Finnamore Lakes	26/03/2024	16:25	Black-headed Gull	17	lakes and ponds; flying, calling	CR
BH121	Finnamore Lakes	11/04/2024	10:52	Black-headed Gull	2	lakes and ponds; perched	NL
BH122	Finnamore Lakes	11/04/2024	10:59	Black-headed Gull	2	lakes and ponds; flushed	NL
BH123	Lough Boora	11/04/2024	12:43	Black-headed Gull	2	lakes and ponds; roosting	NL
BH124	Lough Boora	11/04/2024	12:45	Black-headed Gull	2	lakes and ponds; foraging	NL
BH125	Lough Boora	11/04/2024	12:46	Black-headed Gull	3	lakes and ponds; foraging, perched	NL
BH126	Finnamore Lakes	23/04/2024	11:59	Black-headed Gull	2	lakes and ponds; flying	NL
BH127	Finnamore Lakes	23/04/2024	12:09	Black-headed Gull	1	lakes and ponds; foraging	NL
BH128	Finnamore Lakes	23/04/2024	12:13	Black-headed Gull	1	lakes and ponds; foraging	NL
BH129	Lough Boora	23/04/2024	13:48	Black-headed Gull	2	lakes and ponds; foraging, flying	NL
BH130	Lough Boora	23/04/2024	13:54	Black-headed Gull	2	lakes and ponds; flying	NL

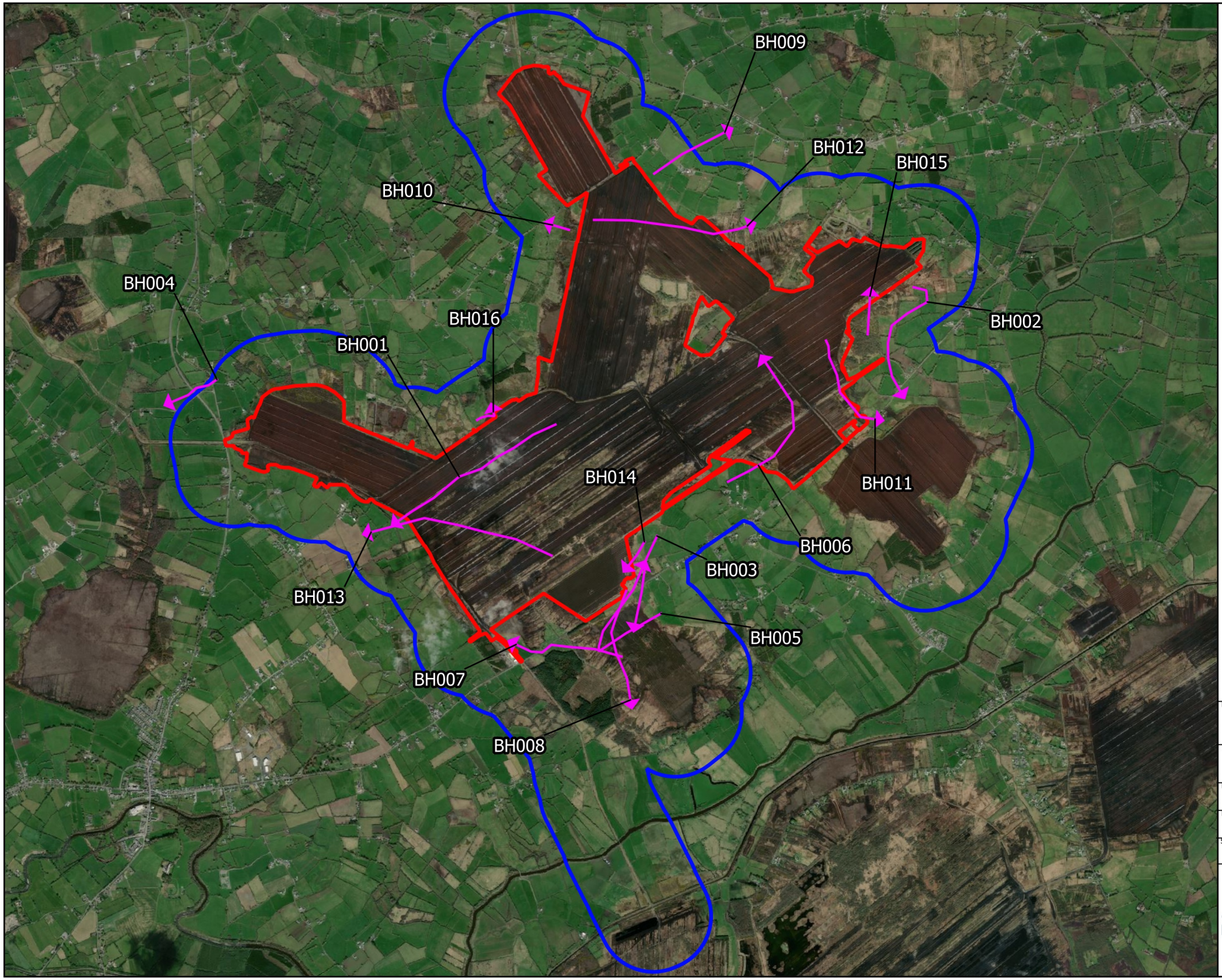
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH131	Lough Boora	23/04/2024	13:56	Black-headed Gull	4	lakes and ponds; perched	NL
BH132	Lough Boora	23/04/2024	13:58	Black-headed Gull	1	lakes and ponds; flying	NL
BH133	Derryesker	14/05/2024	10:09	Black-headed Gull	4	improved agricultural grassland; flying	NL
BH134	Finnamore Lakes	14/05/2024	11:16	Black-headed Gull	2	watercourses; flying	NL
BH135	Finnamore Lakes	14/05/2024	11:25	Black-headed Gull	1	watercourses; flying	NL
BH136	Lough Boora	14/05/2024	13:30	Black-headed Gull	1	watercourses; roosting	NL
BH137	Lough Boora	14/05/2024	13:35	Black-headed Gull	2	watercourses; flying	NL
BH138	Lough Boora	14/05/2024	13:39	Black-headed Gull	1	watercourses; flying	NL
BH139	Grand Canal Way	30/05/2024	10:00	Black-headed Gull	2	improved agricultural grassland; flying	NL
BH140	Finnamore Lakes	30/05/2024	10:49	Black-headed Gull	10	lakes and ponds; flying	NL
BH141	Lough Boora	30/05/2024	11:33	Black-headed Gull	8	lakes and ponds; fighting over food	NL
BH142	Finnamore Lakes	15/08/2024	09:46	Black-headed Gull	15	lakes and ponds; flying, juvenilles	NL
BH143	Lough Boora	15/08/2024	11:11	Black-headed Gull	1	lakes and ponds; perched	NL
BH144	Lough Boora	15/08/2024	11:14	Black-headed Gull	2	lakes and ponds; perched	NL
BH145	Lough Boora	15/08/2024	11:23	Black-headed Gull	2	lakes and ponds; perched, roosting	NL
BH146	Finnamore Lakes	29/08/2024	10:00	Black-headed Gull	1	lakes and ponds; foraging	NL
BH147	Finnamore Lakes	29/08/2024	10:09	Black-headed Gull	1	lakes and ponds; flying	NL
BH148	Lough Boora	29/08/2024	12:13	Black-headed Gull	1	lakes and ponds; perched	NL

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH149	Lough Boora	29/01/2025	13:26	Black-headed Gull	1	lakes and ponds; resting	ZE
BH150	Finnamore Lakes	05/02/2025	15:04	Black-headed Gull	3	lakes and ponds; flying, swimming	ZE
BH151	Lough Boora	06/02/2025	14:59	Black-headed Gull	1	lakes and ponds; perched, calling	ZE
BH152	Tumduff	19/02/2025	14:00	Black-headed Gull	12	lakes and ponds and swamps; flying	ZE
BH153	Lough Boora	19/02/2025	14:29	Black-headed Gull	33	lakes and ponds and swamps; flying, swimming, roosting	ZE
BH154	Tumduff	06/03/2025	14:47	Black-headed Gull	200	lakes and ponds and swamps; flying, calling, rafting	ZE
BH155	Finnamore Lakes	19/03/2025	15:20	Black-headed Gull	7	lakes and ponds and improved grassland; roosting, flying	ZE
BH156	Lough Boora	20/03/2025	15:28	Black-headed Gull	120	lakes and ponds; swimming, flying, calling	ZE

Table 10-4 Black-headed Gull Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH001	Waterbird Distribution and Abundance Survey; Noggus/Armstrong Bridge	29/04/2021	09:29	Black-headed Gull	1	canals; nothing. just a feather., feather belonging to a gull. most likely bh gull.	SOB
BH002	Breeding Woodcock Survey; Lemanaghan bog south	14/06/2021	21:45	Black-headed Gull	1	cutover bog, recently-felled woodland and improved agricultural grassland; flying over head	JG
BH003	Breeding Raptor Survey; BR1	23/06/2023	15:34	Black-headed Gull	1	cutover bog; flying	CR
BH004	Breeding Raptor Survey; BR8	23/05/2024	09:26	Black-headed Gull	3	improved agricultural grassland; travelling	NL
BH005	Breeding Raptor Survey; BR9	23/05/2024	11:54	Black-headed Gull	1	cutover bog and lakes and ponds; flying	NL
BH006	Breeding Raptor Survey; BR12	11/06/2024	12:57	Black-headed Gull	1	mixed broadleaved/conifer woodland; travelling	NL
BH007	Breeding Raptor Survey; BR12	11/06/2024	13:16	Black-headed Gull	12	semi-natural grassland; circling, tractor cutting grass	NL
BH008	Breeding Raptor Survey; BR11	25/06/2024	13:25	Black-headed Gull	2	improved agricultural grassland; commuting	NL

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BH009	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	09:07	Black-headed Gull	1	bogs and conifer plantation; travelling	NL
BH010	Breeding Raptor Survey; Turraun Nature Park	18/07/2024	09:24	Black-headed Gull	3	bogs and scrub; travelling	NL



Map Legend

- Application Site Boundary
- 500m Survey Radius
- Vantage Point Locations
- Flight Observation

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Drawing Title

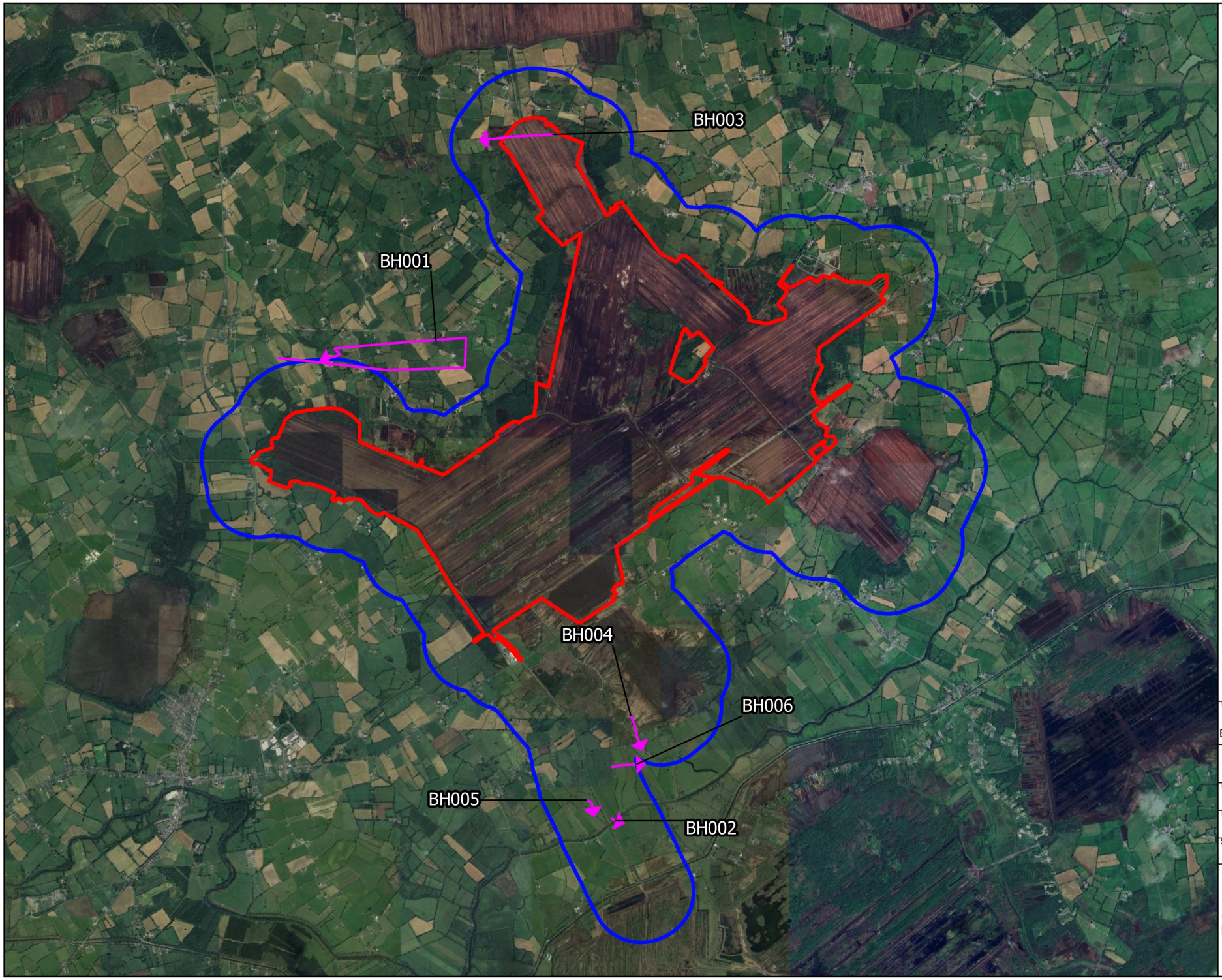
Black-headed Gull
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 10.1
Scale	Date
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Map Legend

Application Site Boundary

500m Survey Radius

Flight Observation

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Drawing Title

Black-headed Gull
Breeding Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 10.2
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title
Black-headed Gull
Waterbird Distribution and Abundance
Survey Observations

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 10.3
Scale	Date
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Observations of Black-headed Gull form Waterbird Distribution and Abundance Surveys have been further divided across the following Figures in order to improve readability:

- Figure 10-3a – Black-headed Gull Waterbird and Distribution Survey Data - Winter Season 2020/21
- Figure 10-3b – Black-headed Gull Waterbird and Distribution Survey Data - April & May 2021
- Figure 10-3c – Black-headed Gull Waterbird and Distribution Survey Data - Winter Season 2021/22
- Figure 10-3d – Black-headed Gull Waterbird and Distribution Survey Data - April & May 2022
- Figure 10-3e – Black-headed Gull Waterbird and Distribution Survey Data - Winter Season 2022/23
- Figure 10-3f – Black-headed Gull Waterbird and Distribution Survey Data - Winter Season 2023/24
- Figure 10-3g – Black-headed Gull Waterbird and Distribution Survey Data - Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Black-headed Gull Observations Winter 2020/21
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 10.3a
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Drawing Title

Black-headed Gull Observations Breeding 2021
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 10.3b
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- Observation

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Drawing Title

Black-headed Gull Observations Winter 2021/22
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 10.3c
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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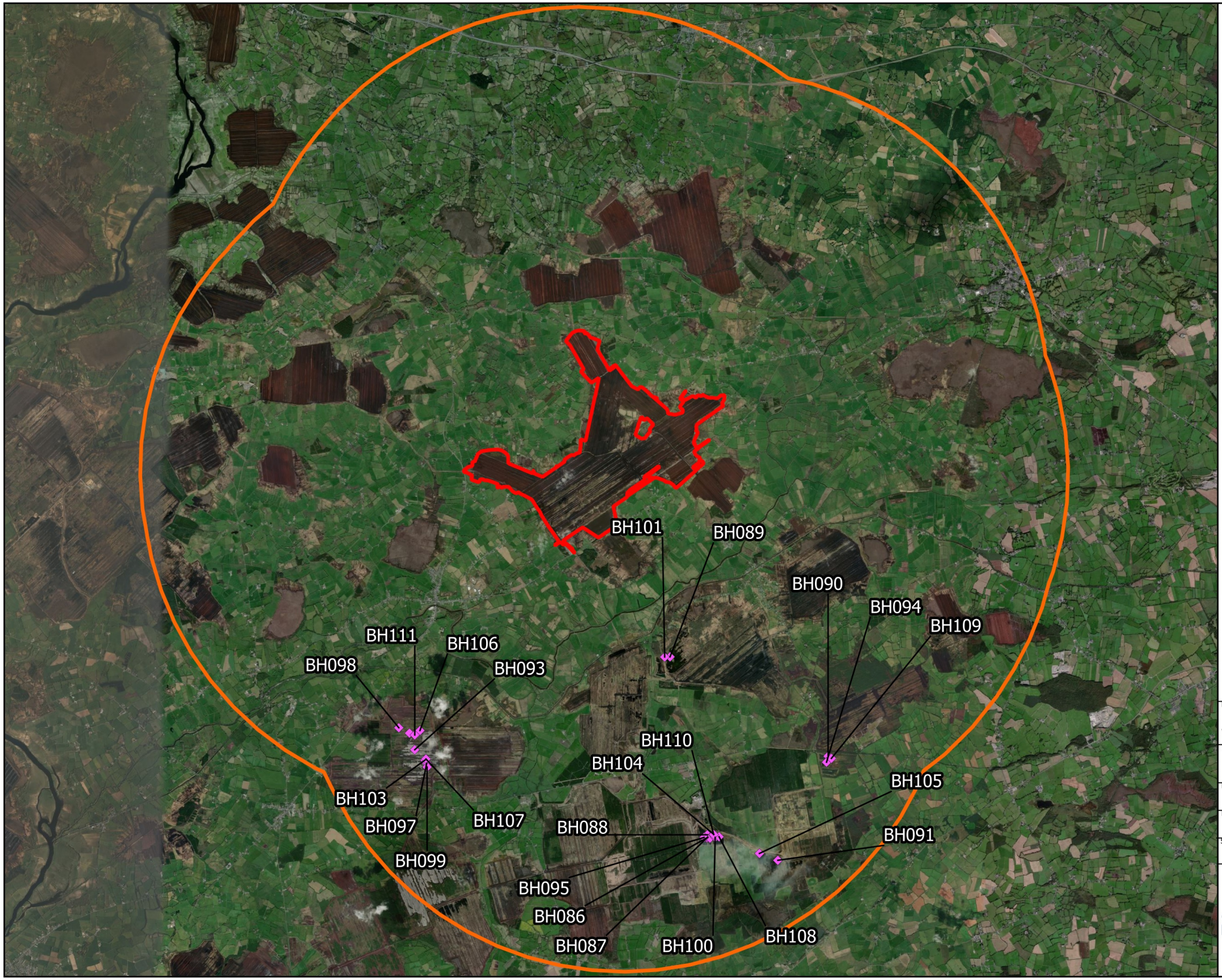
Black-headed Gull Observations Breeding 2022
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 10.3d
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Black-headed Gull Observations Oct22-Sep23 Waterbird Distribution and Abundance Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 10.3e
Scale: 1:122,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Black-headed Gull Observations Oct23-Sep24 Waterbird Distribution and Abundance Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 10.3f
Scale: 1:122,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Black-headed Gull Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 10.3g
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Black-headed Gull
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 10.4
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11. BARN OWL

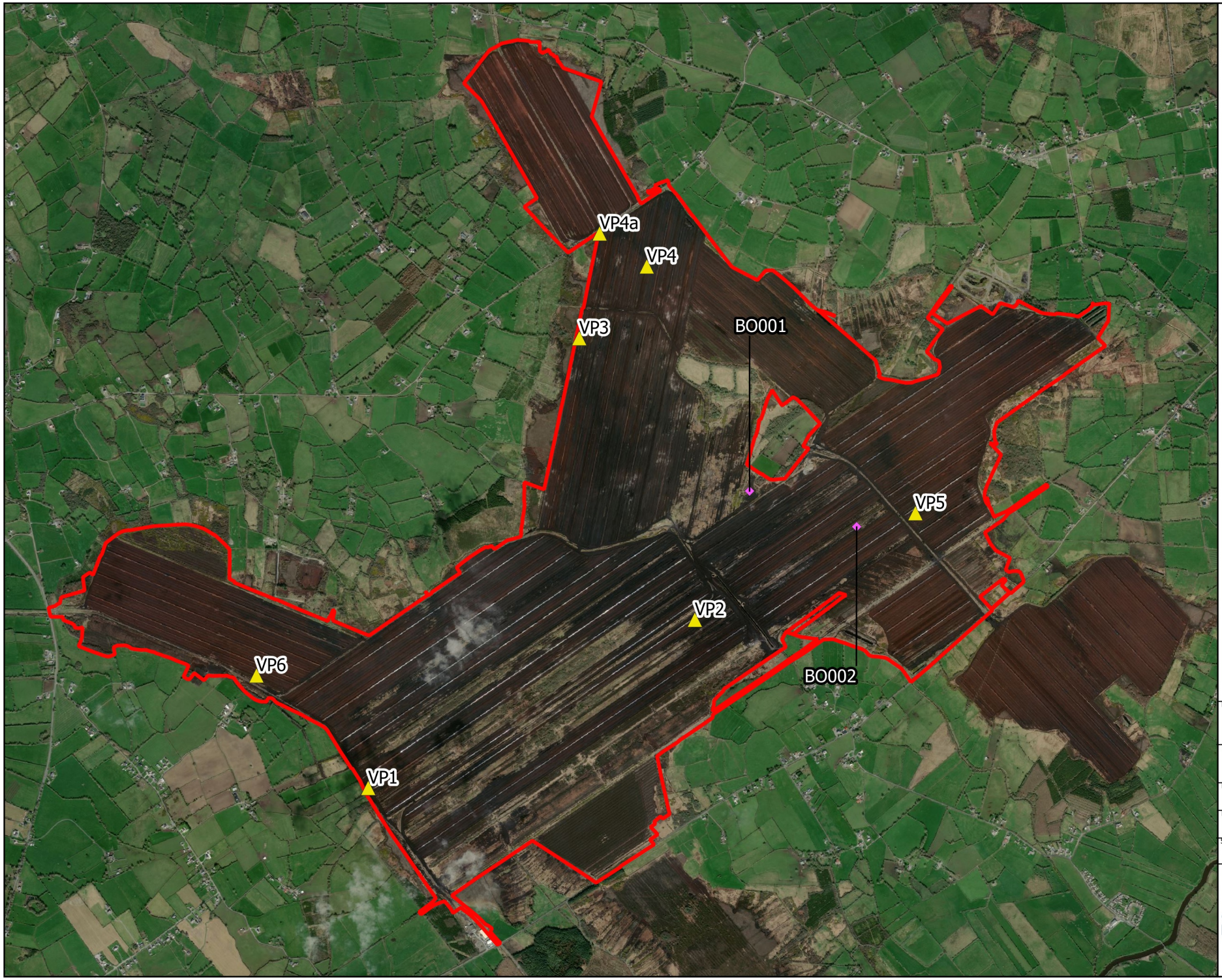
Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 11-1 Barn Owl Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BO001	VP2	02/11/2021	17:56	Barn Owl	1	-	-	-	-	-	cutover bog and bog woodland; calling, barn owl heard calling to the north of vp2	CR
BO002	VP5	03/03/2023	19:08	Barn Owl	1	-	-	-	-	-	cutover bog; calling	CR

Table 11-2 Barn Owl Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BO002	Hen Harrier Roost Survey; Near entrance to Primo Coachworks	31/03/2023	05:49	Barn Owl	1	improved grassland; flying	CR



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Non-flight Observation

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Drawing Title

Barn Owl
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 11.1
Scale	Date
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Map Legend

- Application Site Boundary
- Survey Area
- Observation

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Drawing Title

Barn Owl
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 11.2
Scale	Date
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12. CURLEW

Table 12-1 Curlew Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
CU001	VP5	19/09/2024	10:27	Curlew	1	-	-	-	-	-	bogs; calling, heard not seen	PDC
CU002	VP5	19/09/2024	10:28	Curlew	1	5	0	5	0	0	scrub and linear woodland/scrub; travelling, briefly seen between trees	PDC

Table 12-2 Curlew Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
CU001	20/07/2023	17:35	-	Curlew	5	improved grassland and depositing/lowland rivers; flying/calling (flyover; non-breeding)	CR

Table 12-3 Curlew Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
CU001	Boora	21/10/2020	10:31	Curlew	33	improved agricultural grassland; foraging	JH
CU002	Boora	09/11/2020	10:21	Curlew	140	improved agricultural grassland; foraging	JH
CU003	Boora	27/11/2020	13:37	Curlew	80	improved agricultural grassland; foraging	JH
CU004	Boora	18/12/2020	12:50	Curlew	32	improved agricultural grassland; roosting	JH
CU005	Boora	18/12/2020	13:09	Curlew	22	improved agricultural grassland and acid oligotrophic lakes; roosting	JH
CU006	Boora	25/01/2021		Curlew	130	improved agricultural grassland; foraging	JH
CU007	Boora	09/02/2021	14:05	Curlew	14	improved agricultural grassland and conifer plantation; foraging	JH
CU008	Boora	25/02/2021	14:18	Curlew	9	improved agricultural grassland and conifer plantation; foraging	JH
CU009	Tumduff Beag	15/03/2021	14:10	Curlew	15	lakes and ponds; roosting	PT

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
CU010	Tumduff Mor	15/03/2021	14:40	Curlew	18	grassland and marsh; feeding, on pasture	PT
CU011	Tumduff Beag	30/03/2021	15:15	Curlew	1	lakes and ponds; roosting	PT
CU012	Finnamore Lakes	17/08/2021	15:24	Curlew	1	improved agricultural grassland; calling, heard calling	JG
CU013	Lough Boora	14/09/2021	18:15	Curlew	37	mesotrophic lakes and cutover bog; flight, 37 curlew seen flying around over lough boora when on way to tumduff.	SOB
CU014	Tumduff Wetlands	12/10/2021	15:28	Curlew	29	lakes and ponds and improved grassland; foraging/flying, flock left the area heading north east.	CR
CU015	Tumduff Wetlands	27/10/2021	14:49	Curlew	11	lakes and ponds; flying/roosting, flock of 11 curlew observed landing on the edge of the wetland	CR
CU016	Tumduff Wetlands	27/10/2021	15:27	Curlew	47	lakes and ponds and improved grassland; flying, large flock of curlew observed heading north east	CR
CU017	Tumduff Wetlands	27/10/2021	15:56	Curlew	28	improved grassland; foraging/flying, observed foraging in the field north of the wetlands	CR
CU018	Tumduff	24/11/2021	14:12	Curlew	43	improved grassland; foraging, foraging in field north of tumduff wetlands.	CR
CU019	Tumduff	09/12/2021	12:01	Curlew	7	improved grassland; flying	CR
CU020	Tumduff	09/12/2021	14:28	Curlew	11	improved grassland; foraging	CR
CU021	Tumduff	22/12/2021	13:54	Curlew	52	improved grassland; flying, heading east before landing in field.	CR
CU022	Tumduff	22/12/2021	14:22	Curlew	33	improved grassland and highly modified/non-native woodland; flying	CR
CU023	Tumduff	07/01/2022	10:05	Curlew	56	improved grassland; foraging	CR
CU024	Tumduff	28/01/2022	14:50	Curlew	40	improved grassland; flying	CR
CU025	Tumduff	09/02/2022	12:56	Curlew	65	lakes and ponds; roosting	CR
CU026	Lough Boora	09/02/2022	13:33	Curlew	1	lakes and ponds; flying	CR
CU027	Tumduff	24/02/2022	12:34	Curlew	10	lakes and ponds; roosting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
CU028	Lough Boora	01/04/2022	10:35	Curlew	1	watercourses and improved agricultural grassland; calling	KS
CU029	Tumduff	15/09/2022	15:50	Curlew	26	improved grassland; foraging	CR
CU030	Tumduff	15/09/2022	16:09	Curlew	10	improved grassland; flying	CR
CU031	Lough Boora	12/10/2022	16:32	Curlew	13	improved grassland; flying	CR
CU032	Tumduff	27/10/2022	13:13	Curlew	45	improved grassland; foraging	CR
CU033	Tumduff	11/11/2022	15:44	Curlew	13	improved grassland; flying/calling	CR
CU034	Tumduff	23/11/2022	14:36	Curlew	80	improved grassland; foraging/flying	CR
CU035	Tumduff	07/12/2022	14:46	Curlew	40	improved grassland; foraging/flying	CR
CU036	Tumduff	19/12/2022	12:42	Curlew	22	improved grassland; foraging	CR
CU037	Lough Boora	10/01/2023	15:46	Curlew	3	improved grassland; foraging	CR
CU038	Lough Boora	26/01/2023	14:21	Curlew	23	improved grassland; foraging	CR
CU039	Tumduff	08/02/2023	14:41	Curlew	75	lakes and ponds; flying	CR
CU040	Tumduff	21/02/2023	10:11	Curlew	90	lakes and ponds; flying	CR
CU041	Tumduff	07/03/2023	16:11	Curlew	26	lakes and ponds; roosting	CR
CU042	Tumduff	07/03/2023	16:20	Curlew	28	lakes and ponds; foraging	CR
CU043	Tumduff	06/10/2023	16:13	Curlew	25	lakes and ponds and improved grassland; flying	CR
CU044	Tumduff	09/11/2023	14:12	Curlew	50	improved grassland; foraging	CR
CU045	Lough Boora	23/11/2023	15:38	Curlew	79	improved grassland; foraging/roosting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
CU046	Tumduff	21/12/2023	15:39	Curlew	50	lakes and ponds; flying	CR
CU047	Tumduff	03/01/2024	15:12	Curlew	70	improved grassland; foraging	CR
CU048	Tumduff	18/01/2024	16:30	Curlew	80	lakes and ponds; flying	CR
CU049	Tumduff	30/01/2024	10:56	Curlew	25	improved grassland; foraging	CR
CU050	Lough Boora	30/01/2024	11:17	Curlew	51	improved grassland; foraging	CR
CU051	Lough Boora	30/01/2024	11:30	Curlew	48	improved grassland; foraging	CR
CU052	Drinagh	12/02/2024	14:36	Curlew	7	lakes and ponds; flying	#REF!
CU053	Lough Boora	12/02/2024	16:10	Curlew	10	improved grassland; foraging	CR
CU054	Tumduff	27/02/2024	09:49	Curlew	1	improved grassland and lakes and ponds; flying	CR
CU055	Noggusduff	13/03/2024	13:00	Curlew	3	lakes and ponds; resting	CR
CU056	Tumduff	13/03/2024	17:23	Curlew	3	improved grassland; foraging	CR
CU057	Finnamore Lakes	29/08/2024	10:39	Curlew	1	lakes and ponds; calling	NL
CU058	Finnamore Lakes	12/09/2024	10:24	Curlew	15	lakes and ponds; flying, calling	NL
CU059	Finnamore Lakes	24/09/2024	11:04	Curlew	30	lakes and ponds; flying	NL
CU060	Lough Boora	11/10/2024	13:04	Curlew	1	watercourses; loafing	FOD
CU061	Cloghan Lake	31/10/2024	15:00	Curlew	62	improved agricultural grassland; loafing	FOD
CU062	Lough Boora	18/12/2024	13:10	Curlew	89	improved agricultural grassland; loafing	FOD
CU063	Tumduff	29/01/2025	13:48	Curlew	43	improved agricultural grassland; foraging, with lapwing	ZE

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
CU064	Tumduff	29/01/2025	14:07	Curlew	100	improved grassland; flying, calling, with golden plover and lapwing; probably disturbed by something	ZE
CU065	Tumduff	06/02/2025	14:06	Curlew	167	improved agricultural grassland; foraging	ZE
CU066	Tumduff	06/02/2025	14:25	Curlew	80	improved agricultural grassland; flying, landed, joined the other flock	ZE
CU067	Tumduff	06/02/2025	14:29	Curlew	110	improved agricultural grassland; foraging	ZE
CU068	Lough Boora	19/02/2025	14:02	Curlew	86	semi-natural grassland and improved grassland; flying, landed, calling	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title

Curlew
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title

Curlew
Breeding Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 12.2
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title
Curlew
Waterbird Distribution and Abundance Survey Observations

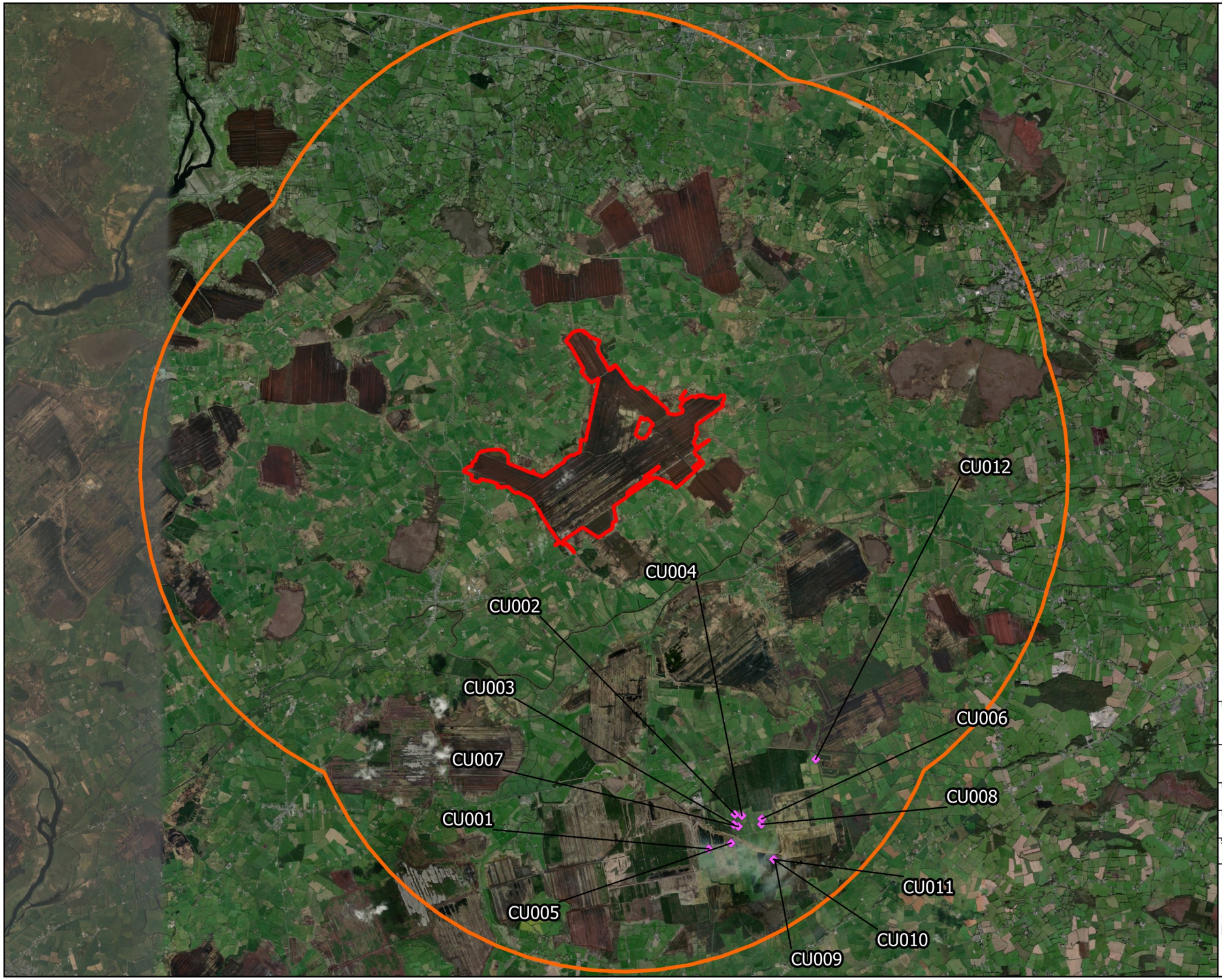
Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 12.3
Scale	Date
1:122,000	17.07.2025

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Observations of Curlew form Waterbird Distribution and Abundance Surveys have been further divided across the following Figures in order to improve readability:

- Figure 12-3a – Curlew Waterbird and Distribution Survey Data - Winter Season 2020/21
- Figure 12-3b – Curlew Waterbird and Distribution Survey Data - Winter Season 2021/22
- Figure 12-3c – Curlew Waterbird and Distribution Survey Data - Winter Season 2022/23
- Figure 12-3d – Curlew Waterbird and Distribution Survey Data - Winter Season 2023/24
- Figure 12-3e – Curlew Waterbird and Distribution Survey Data - Winter Season 2024/25



Map Legend

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Drawing Title
Curlew Observations Oct20-Sep21 Waterbird Distribution and Abundance Surveys

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DW	PC
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200804-e	Fig. 12.3a
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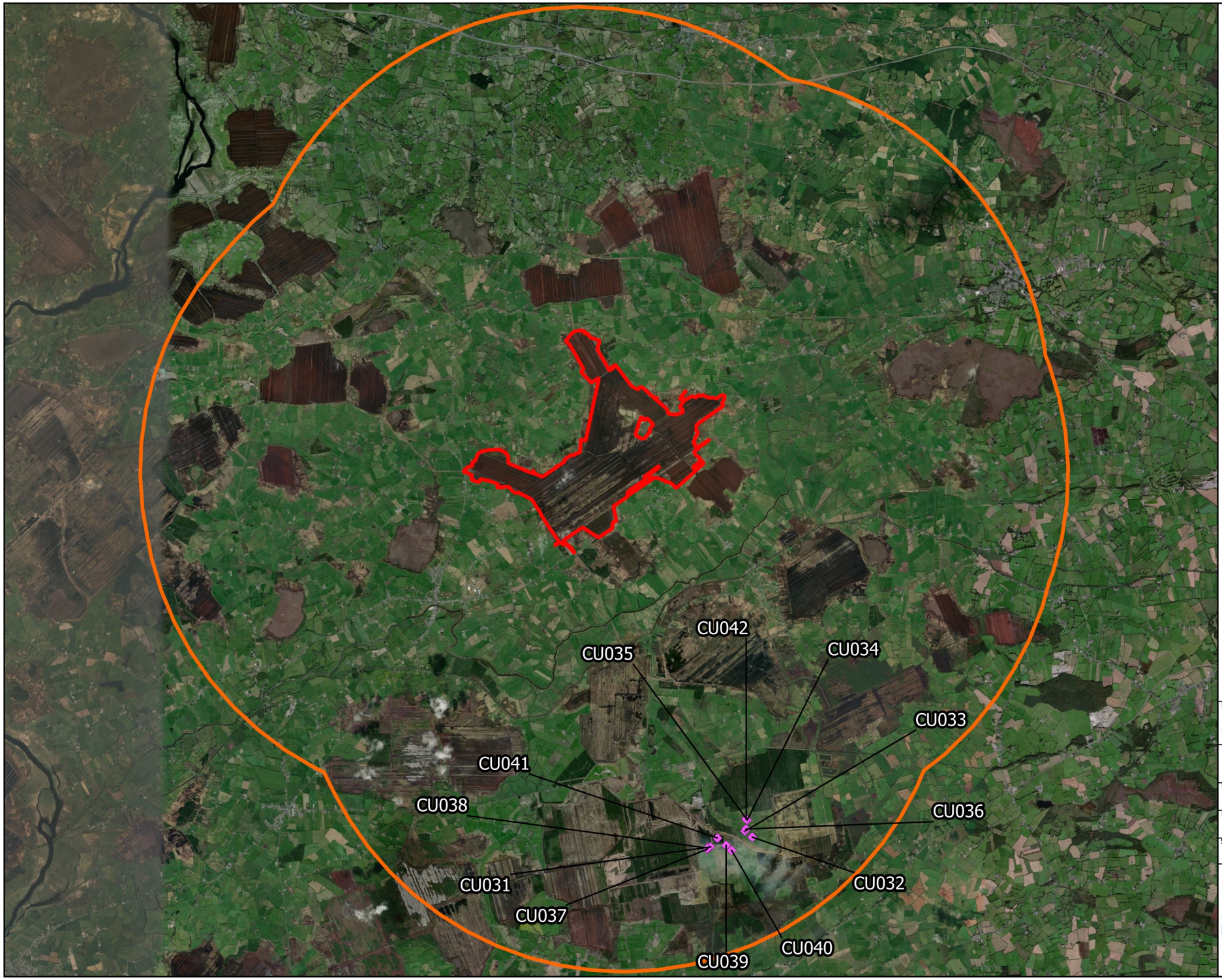
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Drawing Title
Curlew Observations Oct21-Sep22 Waterbird Distribution and Abundance Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 12.3b
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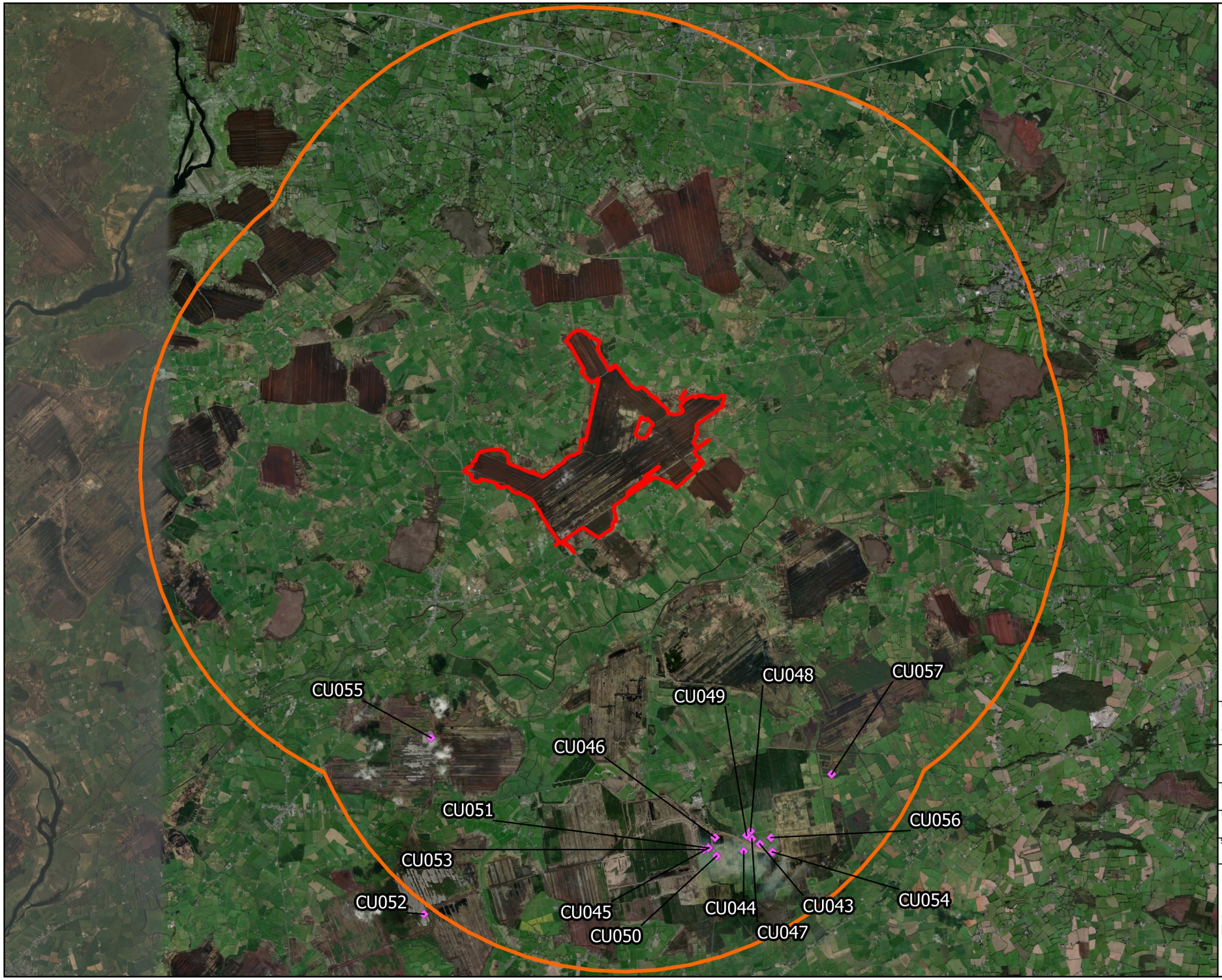
Curlew Observations Winter 2022/23
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 12.3c
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Drawing Title

Curlew Observations Oct23-Sep24
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 12.3d
Scale	Date
1:122,000	17.07.2025

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Map Legend

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- Observation

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Drawing Title

Curlew Observations Winter 2024/25
Waterbird Distribution and Abundance Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 12.3d
Scale	Date
1:122,000	17.07.2025

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13. KESTREL

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 13-1 Kestrel Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.001	VP1	29/10/2020	13:24	Kestrel	1	26	26	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.002	VP1	29/10/2020	13:30	Kestrel	1	99	99	0	0	0	scrub and cutover bog; hunting	JH
K.003	VP5	29/10/2020	17:06	Kestrel	1	278	278	0	0	0	cutover bog and scrub; hunting and hovering, descending onto cut over bog	JH
K.004	VP3	30/10/2020	13:15	Kestrel	1	122	14	102	0	0	cutover bog and scrub; hunting and hovering, descending into scrub. male	JH
K.005	VP3	30/10/2020	13:30	Kestrel	1	112	112	0	0	0	cutover bog and scrub; hunting, perching in scrub	JH
K.006	VP3	30/10/2020	13:42	Kestrel	1	116	116	0	0	0	cutover bog and scrub; hunting, perching in scrub	JH
K.007	VP3	30/10/2020	13:49	Kestrel	1	80	80	0	0	0	cutover bog, upland blanket bog and scrub; hunting	JH
K.008	VP1	05/11/2020	09:24	Kestrel	1	48	48	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.009	VP2	06/11/2020	10:08	Kestrel	1	70	10	60	0	0	cutover bog and scrub; hunting and hovering, descending into cover	JH
K.010	VP2	06/11/2020	10:09	Kestrel	1	97	97	0	0	0	cutover bog and scrub; hunting	JH
K.011	VP2	06/11/2020	11:21	Kestrel	1	237	25	212	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.012	VP2	06/11/2020	11:30	Kestrel	1	324	0	240	84	0	cutover bog and scrub; hunting and hovering, flying on	JH
K.013	VP2	06/11/2020	11:42	Kestrel	1	136	20	116	0	0	cutover bog; hunting and hovering, descending onto the cutaway	JH
K.014	VP2	06/11/2020	12:08	Kestrel	1	74	74	0	0	0	cutover bog and scrub; hunting	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.015	VP2	06/11/2020	12:13	Kestrel	1	102	0	0	102	0	cutover bog and scrub; hunting and hovering	JH
K.016	VP2	06/11/2020	12:20	Kestrel	1	114	114	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.017	VP2	06/11/2020	12:28	Kestrel	1	158	0	0	158	0	cutover bog and scrub; hunting	JH
K.018	VP2	06/11/2020	12:50	Kestrel	1	38	38	0	0	0	cutover bog and scrub; hunting, descending into scrub	JH
K.019	VP3	10/11/2020	10:52	Kestrel	1	304	304	0	0	0	cutover bog and scrub; hunting and hovering	JH
K.020	VP3	10/11/2020	11:15	Kestrel	1	312	0	312	0	0	cutover bog; hunting	JH
K.021	VP3	10/11/2020	13:08	Kestrel	1	180	25	155	0	0	upland blanket bog and conifer plantation; hunting and hovering, descending into forestry plantation	JH
K.022	VP4	12/11/2020	07:59	Kestrel	1	71	71	0	0	0	cutover bog, improved agricultural grassland and hedgerows; hunting and hovering, descending into hedgerow	JH
K.023	VP4	12/11/2020	11:19	Kestrel	1	163	10	30	123	0	improved agricultural grassland and hedgerows; hunting and hovering	JH
K.024	VP5	13/11/2020	07:43	Kestrel	1	158	0	158	0	0	cutover bog and scrub; hunting	JH
K.025	VP5	13/11/2020	09:04	Kestrel	1	24	24	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.026	VP5	13/11/2020	10:28	Kestrel	1	154	154	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.027	VP5	13/11/2020	11:36	Kestrel	1	296	10	101	185	0	cutover bog and scrub; hunting and hovering	JH
K.028	VP5	13/11/2020	12:50	Kestrel	1	116	116	0	0	0	cutover bog and scrub; hunting and hovering	JH
K.029	VP5	13/11/2020	13:02	Kestrel	1	418	168	250	0	7	cutover bog; hunting and hovering, male	JH
K.030	VP6	17/11/2020	11:54	Kestrel	1	422	18	53	351	0	cutover bog and scrub; hunting abd hovering, descending into scrub	JH
K.031	VP6	17/11/2020	08:39	Kestrel	1	516	0	516	0	0	cutover bog and scrub; hunting and hovering	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.032	VP6	17/11/2020	12:27	Kestrel	1	127	15	112	0	0	cutover bog and scrub; hunting and hovering	JH
K.033	VP5	23/11/2020	11:30	Kestrel	1	45	45	0	0	0	improved agricultural grassland and hedgerows; hunting and hovering	JH
K.034	VP5	23/11/2020	11:41	Kestrel	1	25	25	0	0	0	cutover bog; travelling, male	JH
K.035	VP5	23/11/2020	12:13	Kestrel	1	210	210	0	0	0	#N/A	JH
K.036	VP5	23/11/2020	13:30	Kestrel	1	137	55	82	0	0	cutover bog; hunting	JH
K.037	VP5	23/11/2020	13:44	Kestrel	1	480	60	420	0	0	cutover bog and scrub; hunting and hovering	JH
K.038	VP4	26/11/2020	12:59	Kestrel	1	22	22	0	0	0	cutover bog and scrub; hunting, male. landing on cut-over bog	JH
K.039	VP2	08/12/2020	12:30	Kestrel	1	34	34	0	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.040	VP2	08/12/2020	13:02	Kestrel	1	635	0	195	440	0	cutover bog and scrub; hunting and hovering, female	JH
K.041	VP2	08/12/2020	15:18	Kestrel	1	42	10	32	0	0	cutover bog and scrub; hunting	JH
K.042	VP2	08/12/2020	16:05	Kestrel	1	76	0	76	0	0	cutover bog and upland blanket bog; hunting	JH
K.043	VP2	08/12/2020	16:16	Kestrel	1	40	40	0	0	0	cutover bog and upland blanket bog; hunting and hovering	JH
K.044	VP1	10/12/2020	11:17	Kestrel	1	118	0	118	0	0	cutover bog and scrub; hunting and hovering	JH
K.045	VP1	10/12/2020	11:41	Kestrel	1	152	30	122	0	0	cutover bog and scrub; hunting	JH
K.046	VP1	10/12/2020	12:02	Kestrel	1	199	10	189	0	0	cutover bog, conifer plantation and scrub; hunting and hovering, descending into scrub	JH
K.047	VP1	10/12/2020	12:07	Kestrel	1	15	15	0	0	0	cutover bog; travelling, disappearing behind peat pile	JH
K.048	VP1	10/12/2020	12:19	Kestrel	1	28	28	0	0	0	cutover bog and scrub; travelling, perching in scrub	JH
K.049	VP1	10/12/2020	14:17	Kestrel	1	53	53	0	0	0	cutover bog and scrub; travelling	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.050	VP1	10/12/2020	15:36	Kestrel	1	52	0	52	0	0	cutover bog and conifer plantation; hunting and hovering	JH
K.051	VP3	14/12/2020	11:35	Kestrel	1	208	0	0	150	58	cutover bog and scrub; hunting, hovering and flying on	JH
K.052	VP4	15/12/2020	10:56	Kestrel	1	50	10	10	30	0	improved agricultural grassland and scrub; travelling, being mobbed by hooded crows	JH
K.053	VP6	16/12/2020	13:28	Kestrel	1	87	15	72	0	0	cutover bog and conifer plantation; hunting and hovering, descending into forestry plantation	JH
K.054	VP6	16/12/2020	15:49	Kestrel	1	205	13	192	0	0	cutover bog and scrub; hunting and hovering, descending into cover	JH
K.055	VP6	16/12/2020	15:55	Kestrel	1	27	27	0	0	0	cutover bog and scrub; travelling, disappearing into scrub	JH
K.056	VP6	16/12/2020	16:02	Kestrel	1	222	40	182	0	0	cutover bog, scrub and conifer plantation; hunting	JH
K.057	VP1	15/01/2021	10:09	Kestrel	1	55	20	35	0	0	cutover bog and scrub; hunting and hovering	JH
K.058	VP1	15/01/2021	11:34	Kestrel	1	332	0	0	332	0	cutover bog and scrub; hunting, hovering and flying on	JH
K.059	VP1	15/01/2021	12:33	Kestrel	1	83	10	73	0	0	cutover bog and scrub; hunting and hovering, descending into heather. male	JH
K.060	VP1	15/01/2021	12:16	Kestrel	1	24	24	0	0	0	cutover bog; travelling, male	JH
K.061	VP1	15/01/2021	12:59	Kestrel	1	39	39	0	0	0	cutover bog and scrub; hunting, descending into heather on high bog	JH
K.062	VP1	15/01/2021	13:08	Kestrel	1	145	145	0	0	0	cutover bog and scrub; hunting, descending into heather. male	JH
K.063	VP1	15/01/2021	13:15	Kestrel	1	88	0	88	0	0	cutover bog and scrub; hunting and hovering, male	JH
K.064	VP1	15/01/2021	13:21	Kestrel	1	108	0	20	88	0	cutover bog, scrub and conifer plantation; hunting and hovering, disappearing into cover	JH
K.065	VP1	15/01/2021	13:38	Kestrel	1	314	264	50	0	0	cutover bog and scrub; hunting, descending into cover	JH
K.066	VP1	15/01/2021	13:47	Kestrel	1	191	20	171	0	0	cutover bog and scrub; hunting, descending into heather on bog	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.067	VP1	15/01/2021	13:53	Kestrel	1	40	40	0	0	0	cutover bog and scrub; hunting, being mobbed by sparrowhawk. male	JH
K.068	VP4	26/01/2021	11:14	Kestrel	1	29	0	29	0	0	#N/A	JH
K.069	VP4	26/01/2021	11:26	Kestrel	1	52	52	0	0	0	cutover bog; hunting, landing on cutaway	JH
K.070	VP1	03/02/2021	12:15	Kestrel	1	150	0	150	0	0	cutover bog and scrub; hunting and hovering, female	JH
K.071	VP1	03/02/2021	13:36	Kestrel	1	199	0	199	0	0	cutover bog and scrub; travelling	JH
K.072	VP2	10/02/2021	14:50	Kestrel	1	129	0	0	129	0	cutover bog and improved agricultural grassland; hunting and hoveribg	JH
K.073	VP2	10/02/2021	17:09	Kestrel	1	25	25	0	0	0	cutover bog; travelling, landing on cutaway. male	JH
K.074	VP3	15/02/2021	16:17	Kestrel	1	233	0	233	0	0	upland blanket bog, conifer plantation and scrub; hunting and hovering	JH
K.075	VP3	15/02/2021	16:28	Kestrel	1	46	46	0	0	0	cutover bog and scrub; hunting and hovering, descending onto cutaway	JH
K.076	VP4	16/02/2021	13:35	Kestrel	1	56	10	46	0	0	cutover bog and scrub; hunting and hovering, descending into cover on cutaway	JH
K.077	VP4	16/02/2021	16:27	Kestrel	1	212	45	167	0	0	cutover bog and scrub; hunting and hovering, male	JH
K.078	VP4	16/02/2021	16:32	Kestrel	1	62	0	62	0	0	cutover bog and scrub; travelling	JH
K.079	VP4	16/02/2021	16:55	Kestrel	1	225	0	0	40	185	cutover bog and improved agricultural grassland; climbing flight	JH
K.080	VP5	17/02/2021	17:00	Kestrel	1	52	0	52	0	0	cutover bog and scrub; travelling	JH
K.081	VP6	22/02/2021	13:01	Kestrel	1	223	223	0	0	0	cutover bog and scrub; hunting and hovering, landing on peat pile	JH
K.082	VP6	22/02/2021	13:21	Kestrel	1	71	48	23	0	0	cutover bog and scrub; hunting and hovering, descending into scrub	JH
K.083	VP6	22/02/2021	14:13	Kestrel	1	61	10	51	0	0	cutover bog, scrub and improved agricultural grassland; hunting and hovering	JH
K.084	VP6	22/02/2021	16:11	Kestrel	1	28	28	0	0	0	cutover bog and scrub; travelling, descending into cover	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.085	VP6	22/02/2021	17:33	Kestrel	1	303	210	93	0	0	cutover bog and scrub; hunting and hovering, male	JH
K.086	VP6	26/02/2021	11:19	Kestrel	1	33	10	23	0	0	cutover bog and scrub; hunting and hovering	JH
K.087	VP6	26/02/2021	11:22	Kestrel	1	48	30	18	0	0	cutover bog and scrub; hunting and hovering	JH
K.088	VP6	26/02/2021	11:28	Kestrel	1	37	5	32	0	0	cutover bog and hedgerows; hunting and hovering, disappearing behind treeline	JH
K.089	VP3	09/03/2021	10:42	Kestrel	1	64	64	0	0	0	cutover bog and scrub; travelling, male	JH
K.090	VP2	18/03/2021	17:14	Kestrel	1	8	8	0	0	0	grassland and marsh and treelines; low flight	PT
K.091	VP3	25/03/2021	19:03	Kestrel	1	105	105	0	0	0	cutover bog; hovering	PT
K.093	VP1	30/03/2021	19:48	Kestrel	1	300	0	60	240	0	grassland and marsh and linear woodland/scrub; hovering	PT
K.094	VP1	30/03/2021	20:04	Kestrel	1	40	40	0	0	0	grassland and marsh and linear woodland/scrub; hovering over fields	PT
K.095	VP4	23/04/2021	16:11	Kestrel	1	40	40	0	0	0	cutover bog, conifer plantation and improved grassland; fly n	SF
K.096	VP3	26/04/2021	15:16	Kestrel	1	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; hover, fly ne	SF
K.097	VP5	27/04/2021	15:00	Kestrel	1	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; hover, fly n	SF
K.098	VP2	28/04/2021	15:06	Kestrel	1	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; hover, fly sw	SF
K.099	VP2	28/04/2021	16:22	Kestrel	1	55	55	0	0	0	cutover bog, conifer plantation and improved grassland; hover, fly ne	SF
K.100	VP1	29/04/2021	14:26	Kestrel	1	50	50	0	0	0	cutover bog, conifer plantation and improved grassland; flys sw	SF
K.101	VP1	29/04/2021	15:53	Kestrel	1	45	45	0	0	0	cutover bog, conifer plantation and improved grassland; flys sw	SF
K.102	VP6	30/04/2021	14:54	Kestrel	1	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; fly se, hovers	SF
K.103	VP6	30/04/2021	15:40	Kestrel	1	45	45	0	0	0	cutover bog, conifer plantation and improved grassland; fly ne	SF

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.104	VP6	30/04/2021	16:10	Kestrel	2	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; fly ne/sw, 2 female kestrels meet, one soars above other, then separate, teerritory boundary?	SF
K.105	VP6	21/05/2021	10:42	Kestrel	1	32	1	1	30	0	scrub and cutover bog; hunting, kestrel male hovering over patch of scrub then pounced on prey	SOB
K.106	VP2	25/05/2021	06:12	Kestrel	1	12	5	7	0		cutover bog; hunting, hovering low and dove downwards	SOB
K.107	VP2	25/05/2021	09:22	Kestrel	1	407	0	0	407	0	cutover bog, improved agricultural grassland and scrub; hunting, kestrel hunting by hovering and flying back and forth over same location	SOB
K.108	VP2	25/05/2021	10:07	Kestrel	1	15	0	0	15	0	improved agricultural grassland and treelines; hunting, kestrel seen flying to spot and hovering lost sight due to heat haze	SOB
K.109	VP2	25/05/2021	10:34	Kestrel	1	79	1	1	77	0	improved agricultural grassland and scrub; flying hunting evading, kestrel flew to point began to hover in search of prey but was mobbed by 3 crows	SOB
K.110	VP2	25/05/2021	11:01	Kestrel	1	41	0	5	36		improved agricultural grassland and treelines; hunting, seen hovering beyond trees south of vp2	SOB
K.111	VP5	26/05/2021	07:25	Kestrel	1	258	0	0	258	0	cutover bog and improved agricultural grassland; flying, flying steadily at same height sw	SOB
K.112	VP5	26/05/2021	11:04	Kestrel	1	105	1	14	100	0	bog woodland and improved agricultural grassland; flying hunting, kestrel flying. hovered for a few seconds then descended to ground	SOB
K.113	VP4	28/05/2021	11:00	Kestrel	1	407	0	0	233	174	improved agricultural grassland and treelines; hunting, evading, kestrel hunting and circling and hovering in position for first few mins, then began being mobbed my crows. it circled upwards in height to escape then flew away ne.	SOB
K.114	VP1	03/06/2021	14:06	Kestrel	1	30	0	0	30	0	cutover bog and bog woodland; gliding, male kestrel seen flying with gusts of wind lost sight due to heat haze	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.115	VP6	08/06/2021	14:50	Kestrel	1	52	1	48	0	0	scrub, cutover bog and improved agricultural grassland; hovering flying, male kestrel flew up started hovering then flew to second point, hovered, then flew fast at low height, lost sight behind trees	SOB
K.116	VP2	14/06/2021	20:19	Kestrel	1	157	1	1	155	0	scrub and cutover bog; hovering, kestrel flying between different spots where he hovered intensely before diving down at the final location	SOB
K.117	VP2	14/06/2021	20:41	Kestrel	1	226	1	2	181	42	cutover bog and scrub; hovering hunting flying, kestrel seen flying beteeen different hovering spots. then dived down presumably to catch prey	SOB
K.118	VP3	22/06/2021	17:29	Kestrel	1	89	4	60	25	0	cutover bog and improved agricultural grassland; hovering, male kestrel hovering at different spots then flew low to ground out of sight	SOB
K.119	VP3	22/06/2021	19:23	Kestrel	1	127	0	31	96	0	scrub, cutover bog and improved agricultural grassland; hovering, male kestrel hunting and hovering flying between hovering spots	SOB
K.120	VP4	23/06/2021	14:30	Kestrel	1	120	20	100	0	0	cutover bog and scrub; hovering, male kestrel hovering at low height along road	SOB
K.121	VP4	23/06/2021	14:33	Kestrel	1	24	24	0	0	0	cutover bog; flying, male kestrel flew along road behind trees out of sight	SOB
K.122	VP4	23/06/2021	15:41	Kestrel	1	146	0	146	0	0	cutover bog, treelines and improved agricultural grassland; hovering, kestrel hovering along road	SOB
K.123	VP4	23/06/2021	16:20	Kestrel	1	120	0	0	120	0	improved agricultural grassland and treelines; hovering, kestrel male hovering over field and out of sight	SOB
K.124	VP5	25/06/2021	11:14	Kestrel	1	287	30	62	197	0	scrub, cutover bog and bog woodland; flying hovering, male kestrel	SOB
K.125	VP4	25/06/2021	11:20	Kestrel	1	15	0	15	0	0	scrub; flying, male kestrel	SOB
K.126	VP4	25/06/2021	19:55	Kestrel	1	40	0	2	38	0	scrub and improved agricultural grassland; hovering, kestrel hovering	SOB
K.127	VP1	01/07/2021	17:56	Kestrel	1	164	10	10	32	112	cutover bog, bog woodland and scrub; hunting, gliding, diving, kestrel, unknown	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											sex, flew out of trees started gliding in circles, ascending to over 200m then after a while dived down.	
K.128	VP1	01/07/2021	19:54	Kestrel	1	148	0	20	128	0	cutover bog, bog woodland and scrub; hunting hovering, male kestrel flying to different locations and hovering for a bit then moving on.	SOB
K.129	VP1	01/07/2021	20:29	Kestrel	1	147	2	15	130	0	cutover bog, bog woodland and scrub; hunting hovering, male kestrel hovering at different points then flying to next point. went into fields beside site	SOB
K.130	VP1	01/07/2021	20:51	Kestrel	1	180	40	20	120	0	cutover bog; evading, hunting, hovering, being mobbed by lapwing, then got away and started hovering at low height before going out of sight behind trees.	SOB
K.131	VP1	01/07/2021	21:42	Kestrel	1	241	10	90	141	0	cutover bog, bog woodland and scrub; hunting hovering, male kestrel hovering hunting and flying between hovering locations	SOB
K.132	VP1	01/07/2021	21:51	Kestrel	1	61	4	12	45	0	bog woodland, cutover bog and scrub; hovering flying, kestrel hovering, flew across bog to trees/scrub hovered more then descended hovering at increasingly lower heights.	SOB
K.133	VP1	05/07/2021	20:53	Kestrel	1	980	120	860	0	0	cutover bog; hunting, came out after break in the weather	JG
K.134	VP1	05/07/2021	21:26	Kestrel	1	125	0	125	0	0	cutover bog and highly modified/non-native woodland; hunting	JG
K.135	VP1	05/07/2021	21:59	Kestrel	1	30	30	0	0	0	cutover bog; flying	JG
K.136	VP2	06/07/2021	21:43	Kestrel	1	210	210	0	0	0	cutover bog; flying	JG
K.137	VP3	07/07/2021	20:28	Kestrel	1	10	10	0	0	0	mixed broadleaved woodland, improved agricultural grassland and cutover bog; flying	JG
K.138	VP3	07/07/2021	20:32	Kestrel	2	-	-	-	-	-	mixed broadleaved woodland, improved agricultural grassland and cutover bog; roosting	JG
K.139	VP3	07/07/2021	20:39	Kestrel	1	60	60	0	0	0	cutover bog; hunting, hovering then went to ground, didnt see come up again	JG

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.140	VP3	07/07/2021	20:50	Kestrel	2	220	220	0	0	0	cutover bog and mixed broadleaved woodland; flying/hunting, first saw one bird hunting then saw second bird fly towards east. first bird then followed	JG
K.142	VP6	12/07/2021	20:23	Kestrel	1	410	0	150	260	0	cutover bog, mixed broadleaved woodland and improved agricultural grassland; hunting	JG
K.143	VP6	12/07/2021	21:00	Kestrel	1	10	10	0	0	0	mixed broadleaved woodland and cutover bog; flying	JG
K.144	VP6	12/07/2021	21:37	Kestrel	2	640	270	370	0	0	mixed broadleaved woodland, cutover bog and improved agricultural grassland; hunting, only recorded one bird for approx. 3mins	JG
K.145	VP5	13/07/2021	12:25	Kestrel	1	25	5	20	0	0	improved agricultural grassland, treelines and cutover bog; flying, hunting, kestrel flew west then started hovering then went below tree height out of sight.	SOB
K.146	VP5	13/07/2021	12:34	Kestrel	1	76	1	2	73	0	improved agricultural grassland, treelines and cutover bog; hunting, kestrel hovering in field in bog, then dived down.	SOB
K.147	VP5	13/07/2021	12:53	Kestrel	1	25	25	0	0	0	cutover bog; flying, kestrel flying steadily in straight line at low height	SOB
K.148	VP5	13/07/2021	12:55	Kestrel	1	67	0	20	57	0	cutover bog, scrub and bog woodland; hunting, kestrel hovering, gliding and scanning below, and flying between points	SOB
K.149	VP5	13/07/2021	12:56	Kestrel	1	191	2	40	149	0	cutover bog, bog woodland and scrub; hunting, kestrel hovering and gliding while scanning, sometimes flying between to different points. then dived down.	SOB
K.150	VP5	13/07/2021	13:15	Kestrel	1	176	1	2	173	0	scrub, bog woodland and cutover bog; hunting, male kestrel (same individual as earlier today) hovering, then circled while gliding up higher, then continued hovering and flew to various hovering spots	SOB
K.151	VP5	13/07/2021	16:16	Kestrel	1	46	1	1	44	0	cutover bog, scrub and bog woodland; hunting, kestrel flew into sight. started hovering for a while then dived down	SOB
K.152	VP3	14/07/2021	12:38	Kestrel	1	63	1	9	53	0	improved agricultural grassland, bog woodland and cutover bog; hunting, kestrel flew along trees, started hovering behind them, then dived down	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.153	VP5	14/07/2021	13:07	Kestrel	1	55	15	30	10	0	cutover bog and scrub; hunting, kestrel hovering and flying low, then pounced down.	SOB
K.154	VP3	14/07/2021	14:15	Kestrel	1	60	15	15	30	0	improved agricultural grassland and treelines; hunting, male. hovering then flying lower, and hovering at different spots, then dived to ground.	SOB
K.155	VP3	14/07/2021	14:16	Kestrel	1	320	40	220	60	0	improved agricultural grassland and treelines; hunting, fighting, male kestrel. after diving down flew along field, started hovering again at various locations. swallow started mobbing kestrel,he chased swallow away and resumed hunting. dived down.	SOB
K.156	VP3	14/07/2021	14:58	Kestrel	1	14	7	7	0	0	cutover bog and scrub; hunting, kestrel hovering, then flew low out of sight	SOB
K.157	VP3	14/07/2021	14:59	Kestrel	1	127	20	67	40	0	cutover bog and scrub; hunting, kestrel flying between different locations and hovering. ocassionally swooping low to ground before hovering higher again	SOB
K.158	VP3	14/07/2021	16:20	Kestrel	1	11	5	6	0	0	cutover bog; hunting, glimpsed hovering, then flew out of sight	SOB
K.159	VP3	14/07/2021	18:42	Kestrel	1	88	0	20	68	0	scrub, cutover bog and improved agricultural grassland; hunting, kestrel hovering at different spots and flying between them.	SOB
K.160	VP2	28/07/2021	14:03	Kestrel	1	45	0	45	0	0	improved agricultural grassland and treelines; hunting, kestrel hovering in spot for a while,,flew a bit away, hovered more then descended	SOB
K.161	VP2	28/07/2021	15:32	Kestrel	1	67	67	0	0	0	cutover bog and drainage ditches; flying, kestrel, male, flying around. low over	SOB
K.162	VP2	28/07/2021	15:33	Kestrel	1	-	-	-	-	-	cutover bog; preening, male kestrel perched in betweenba few flights low over ground, at one point perched for about 1 min preening	SOB
K.163	VP2	29/07/2021	17:25	Kestrel	1	35	30	5	0	0	cutover bog and mixed broadleaved/conifer woodland; flying, perching, kestrel flew low over ground into trees thrn perched on spruce tree	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.164	VP2	29/07/2021	17:26	Kestrel	1	-	-	-	-	-	mixed broadleaved/conifer woodland and treelines; perching, kestrel, male perched on spruce tree looking around.	SOB
K.165	VP2	29/07/2021	17:32	Kestrel	1	7	5	2	0	0	treelines and improved agricultural grassland; flying, male kestrel flew off into treelines and farmland	SOB
K.166	VP2	29/07/2021	18:23	Kestrel	1	22	22	0	0	0	cutover bog; calling, flying, perched on birch tree	SOB
K.167	VP2	29/07/2021	18:24	Kestrel	1	-	-	-	-	-	cutover bog; calling perching, kestrel perched on young birch tree calling	SOB
K.168	VP2	29/07/2021	18:25	Kestrel	1	9	8	1	0	0	mixed broadleaved/conifer woodland and cutover bog; calling flying, calling flew to spruce tree then perched	SOB
K.170	VP2	29/07/2021	18:36	Kestrel	1	25	25	0	0	0	mixed broadleaved/conifer woodland and cutover bog; flying calling, male kestrel calling and flying, probably after other kestrel	SOB
K.171	VP2	29/07/2021	19:04	Kestrel	1	-	-	-	-	-	treelines and scrub; perching, female kestrel perched on spruce tree for a few minutes	SOB
K.172	VP2	29/07/2021	19:07	Kestrel	1	3	3	0	0	0	treelines, drainage ditches and cutover bog; flying, male kestrel flew off spruce and went along drainage ditch	SOB
K.173	VP2	29/07/2021	19:09	Kestrel	1	37	37	0	0	0	cutover bog and drainage ditches; hunting, running, female kestrel flying along drainage ditch and often landing and running, chasing after vole	SOB
K.174	VP2	29/07/2021	19:10	Kestrel	1	-	-	-	-	-	drainage ditches and cutover bog; eating, running, female kestrel running along drainage ditch. then started eating vole	SOB
K.175	VP2	29/07/2021	19:44	Kestrel	1	-	-	-	-	-	mixed broadleaved/conifer woodland and treelines; perching, preening, calling, female kestrel perched on spruce tree	SOB
K.176	VP2	29/07/2021	19:45	Kestrel	1	-	-	-	-	-	treelines and mixed broadleaved/conifer woodland; perching, preening, scanning, female kestrel emerged victorious from the battle and stayed on spruce tree for 8 mins	SOB
K.178	VP6	30/07/2021	12:21	Kestrel	1	366	2	10	354	0	scrub, treelines and cutover bog; hunting, kestrel hovering over scrub/treelines and flying briefly between hovering spots. joined	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											by 2nd kestrel who hovered beside for a while.	
K.179	VP6	30/07/2021	12:25	Kestrel	1	42	0	15	27	0	treelines, scrub and cutover bog; hunting, a second kestrel that joined in and hovered briefly near another kestrel then flew off	SOB
K.180	VP2	30/07/2021	12:39	Kestrel	1	46	26	20	0	0	cutover bog, scrub and bog woodland; flying/flycatching, kestrel not hovering but flying up and down probably flycatching	SOB
K.181	VP6	30/07/2021	12:42	Kestrel	1	169	1	1	167	0	cutover bog and scrub; hunting, kestrel hovering and flying between hovering spots then dived down	SOB
K.182	VP6	30/07/2021	12:56	Kestrel	1	23	14	4	5	0	drainage ditches and cutover bog; hunting, kestrel hovering brefly then flew low along drainage ditch to catch prey	SOB
K.183	VP6	30/07/2021	13:05	Kestrel	1	77	15	40	22	0	cutover bog, bog woodland and drainage ditches; hovering, kestrel hovering at low height then flying along drainage ditch, hovering again then flew into eoods	SOB
K.184	VP6	30/07/2021	16:41	Kestrel	1	42	1	1	40	0	cutover bog, scrub and bog woodland; hunting, kestrel hovering then dived down	SOB
K.185	VP6	30/07/2021	16:44	Kestrel	1	62	1	1	6	0	cutover bog, bog woodland and scrub; hunting, kestrel, hunting then dived down	SOB
K.186	VP6	30/07/2021	16:50	Kestrel	1	144	1	11	132	0	cutover bog, bog woodland and scrub; hunting, hovering for a while then flew south, then hovered again and flew to ground.	SOB
K.187	VP6	30/07/2021	16:55	Kestrel	1	47	1	15	31	0	cutover bog, scrub and bog woodland; hunting, kestrel hovering scanning area below, flew to another spot started hovering again, eventually dived down	SOB
K.188	VP6	30/07/2021	18:17	Kestrel	1	-	-	-	-	-	improved agricultural grassland and treelines; preening, resting, kestrel perched on telephone wire pole, preening	SOB
K.189	VP1	11/08/2021	12:02	Kestrel	1	19	0	19	0	0	cutover bog and bog woodland; hovering, kestrel hovering 1 of two kestrels	SOB
K.190	VP1	11/08/2021	12:02	Kestrel	1	5	0	5	0	0	bog woodland and cutover bog; flying, kestrel briefly glimpsed flying along lines of bog woodland. 1 of 2 kestrels.	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.191	VP1	11/08/2021	13:07	Kestrel	1	96	6	15	75	0	cutover bog, bog woodland and drainage ditches; hunting, female kestrel hovering and flying over bog wood. then flew low over open cutover bog and dived sharply	SOB
K.192	VP1	11/08/2021	13:40	Kestrel	1	8	1	7	0	0	cutover bog, scrub and bog woodland; hunting, kestrel hovering then dived down	SOB
K.195	VP1	11/08/2021	13:42	Kestrel	1	47	47	7	0	0	cutover bog and drainage ditches; flying, kesrrel fled flying low over bog	SOB
K.196	VP1	11/08/2021	13:43	Kestrel	1	83	0	0	83	0	cutover bog, bog woodland and scrub; hunting, hovering, kestrel that did not flee hovered	SOB
K.197	VP1	11/08/2021	13:45	Kestrel	2	31	0	0	31	0	cutover bog; hunting, hovering, other kestrel joined in hovering.	SOB
K.198	VP1	11/08/2021	13:46	Kestrel	1	46	0	0	46	0	cutover bog, scrub and bog woodland; hunting, hovering, other kestrel flew away, lost sight. 1 kestrel left hovering by itself	SOB
K.199	VP1	11/08/2021	13:55	Kestrel	1	258	1	60	197	0	bog woodland, cutover bog and scrub; hunting, hovering, flying, kestrel hovering on its own. sometimes flying between hovering points	SOB
K.200	VP1	11/08/2021	16:07	Kestrel	1	15	15	0	0	0	cutover bog and bog woodland; flying, male kestrel flying across stretch of bog into linear strip of bog woods.	SOB
K.201	VP1	11/08/2021	16:12	Kestrel	1	244	120	120	4	0	bog woodland and cutover bog; hunting, hovering, female kestrel hovering along strip of bog woodland	SOB
K.202	VP1	11/08/2021	16:18	Kestrel	1	75	0	40	35	0	cutover bog, bog woodland and watercourses; hunting, hovering, female kestrel joined by another kestrel the two hunted in close proximity to each other	SOB
K.203	VP1	11/08/2021	16:19	Kestrel	1	43	0	15	28	0	cutover bog, bog woodland and scrub; hovering, flying, other kestrel that joined (unknown gender) flew away from f, hovered, and went out of sight behind trees.	SOB
K.204	VP1	11/08/2021	17:17	Kestrel	1	20	2	18	0	0	cutover bog, scrub and bog woodland; hunting, female kestrel hovering	SOB
K.205	VP5	12/08/2021	12:09	Kestrel	1	12	6	6	0	0	treelines, scrub and cutover bog; hunting, kestrel seen briefly hovering at low height among trees	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.206	VP5	12/08/2021	12:11	Kestrel	1	248	20	168	60	0	cutover bog, treelines and scrub; hunting, female kestrel, hunting, hovering against wind over scrub and trees. dived down a few times, then flew into trees.	SOB
K.207	VP5	12/08/2021	12:39	Kestrel	1	25	1	24	0	0	cutover bog, scrub and treelines; hovering, kestrel briefly seen hovering, then flew down out of sight	SOB
K.208	VP5	12/08/2021	12:53	Kestrel	1	150	28	1	121	0	cutover bog, scrub and drainage ditches; hunting, female kestrel flying low around ground, ascended in draft of wind and started hovering, dived down.	SOB
K.209	VP5	12/08/2021	13:12	Kestrel	1	230	3	88	139	0	scrub, improved agricultural grassland and treelines; hunting, hovering, female kestrel. got mobbed by a swallow but didnt seem bothered by it.	SOB
K.210	VP5	12/08/2021	13:18	Kestrel	1	153	0	35	118	0	improved agricultural grassland, treelines and cutover bog; hunting, hovering, female kestrel hunting, mainly in fields behind bog.	SOB
K.211	VP5	12/08/2021	15:02	Kestrel	1	32	15	17	0	0	cutover bog, scrub and improved agricultural grassland; hunting, hovering, female kestrel hovering at low height.	SOB
K.212	VP5	12/08/2021	15:49	Kestrel	1	-	-	-	-	-	cutover bog; perching, flying, kestrel perched on telephone wire for a minute then flew off. lost sight when saw another kestrel.	SOB
K.213	VP5	12/08/2021	15:50	Kestrel	1	-	-	-	-	-	scrub; perching, perched on telephone wire along road	SOB
K.214	VP5	12/08/2021	15:51	Kestrel	1	52	0	15	37	0	scrub, improved agricultural grassland and cutover bog; hovering, flying, kestrel left perch on telephone wire, started hovering against wind and flew against wind.	SOB
K.215	VP5	12/08/2021	16:14	Kestrel	1	131	2	129	0	0	cutover bog, scrub and drainage ditches; hunting, hovering, female kestrel hunting and hovering at low height	SOB
K.216	VP5	12/08/2021	17:15	Kestrel	1	128	48	88	0	0	cutover bog and scrub; flying, hovering, female kestrel hovering jn a few spots, then flew away	SOB
K.217	VP5	12/08/2021	17:19	Kestrel	2	9	9	0	0	0	scrub; flying, two kestrels flying near each other lost sight of them behind shrubs	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.218	VP5	12/08/2021	17:21	Kestrel	1	39	5	34	0	0	scrub and cutover bog; hovering, kestrel hovering then dived down out of sight	SOB
K.219	VP5	12/08/2021	17:52	Kestrel	1	219	2	187	30	0	scrub, cutover bog and drainage ditches; hovering, female kestrel hovering over vegetated area of cutover bog, after some time it dived down.	SOB
K.220	VP5	12/08/2021	18:15	Kestrel	1	39	2	37	0	0	treelines, cutover bog and improved agricultural grassland; flying, hovering, kestrel flying about in win, briefly hovered. lost sight behind trees.	SOB
K.221	VP3	17/08/2021	15:52	Kestrel	1	104	25	2	77	0	cutover bog, scrub and drainage ditches; hunting, kestrel, hovering and flying getween hovering spots. then dived down and flew quickly close to ground chasing prey.	SOB
K.222	VP3	17/08/2021	16:35	Kestrel	1	-	-	-	-	-	cutover bog and scrub; perching, kestrel perched on met mast wire	SOB
K.223	VP3	17/08/2021	16:52	Kestrel	1	204	10	87	107	0	cutover bog, scrub and drainage ditches; hunting, hovering., kestrel flew off met mast, started hovering and movung between hovering spots, often staying in same location for long while. then eventually dived down to catch prey.	SOB
K.224	VP3	17/08/2021	17:20	Kestrel	1	9	0	9	0	0	improved agricultural grassland and treelines; flying, kestrel briefly seen flying behind tree line.	SOB
K.225	VP1	20/08/2021	13:21	Kestrel	1	-	-	-	-	-	cutover bog and scrub; perched, perched on telephone wire for over 10 mins	SOB
K.226	VP2	20/08/2021	14:32	Kestrel	1	42	19	23	0	0	cutover bog, scrub and bog woodland; hunting, hovering., kestrel hovering at low heigh along scrub and tree edges. swooped low and kost sight behind vegetation.	SOB
K.227	VP2	20/08/2021	14:55	Kestrel	1	124	61	63	0	0	cutover bog, scrub and bog woodland; hovering, hunting, hovering above tree height, then swooping down to hover lower, then ascending	SOB
K.228	VP2	20/08/2021	14:58	Kestrel	2	30	5	25	0	0	cutover bog, scrub and bog woodland; hunting, hovering, kestrels hunting in close proximity	SOB
K.229	VP2	20/08/2021	15:00	Kestrel	1	264	4	74	186	7	cutover bog, scrub and bog woodland; hovering, hunting, kestrel hovrring at 25m,	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											then ascended and after a few mins dive down out of sight	
K.230	VP2	20/08/2021	15:20	Kestrel	1	76	0	50	26	0	cutover bog and scrub; hovering	SOB
K.231	VP2	20/08/2021	15:22	Kestrel	2	26	0	26	0	0	cutover bog, drainage ditches and scrub; hovering, 2 kestrels hovering in close proximity	SOB
K.232	VP2	20/08/2021	15:23	Kestrel	1	82	10	25	47	0	cutover bog and scrub; hovering, juvenile kestrel hovering. dived down to ground	SOB
K.233	VP2	20/08/2021	15:26	Kestrel	1	128	2	26	100	0	scrub and cutover bog; hoveringflught, hunting, kestrel hovering then flew for a bit, hovered more them dived down	SOB
K.234	VP2	20/08/2021	16:32	Kestrel	1	88	1	10	77	0	scrub, cutover bog and bog woodland; hovering, juvenile kestrel hovering went out of sight behind trees	SOB
K.235	VP2	20/08/2021	17:02	Kestrel	1	63	1	2	60	0	cutover bog, drainage ditches and scrub; hunting, hovering, juvenile kestrel hovering then dived	SOB
K.236	VP2	20/08/2021	17:04	Kestrel	1	15	9	6	0	0	scrub, cutover bog and drainage ditches; hunting, hovrring, kestrel hovering briefly then swooped down oow along drainage ditch	SOB
K.237	VP2	20/08/2021	17:06	Kestrel	1	31	26	5	0	0	mixed broadleaved woodland, bog woodland and improved agricultural grassland; hunting, flight, kestrel flew along road surrounded by trees. hovered ocassionally then dived down	SOB
K.238	VP2	20/08/2021	17:09	Kestrel	1	68	1	20	47	0	improved agricultural grassland and treelines; hovering hunting, kestrel hovering over fields behind bog	SOB
K.239	VP2	20/08/2021	18:01	Kestrel	1	53	10	43	0	0	scrub and cutover bog; hovering, kestrel hovering and flying, flew low lost sight behind trees	SOB
K.240	VP2	20/08/2021	18:11	Kestrel	1	15	15	0	0	0	cutover bog and scrub; hovering, kestrel briefly hovering then descended out of sight.	SOB
K.241	VP2	20/08/2021	18:19	Kestrel	1	90	2	23	65	0	improved agricultural grassland and treelines; hovering, hovering in fields beside path	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.242	VP2	20/08/2021	18:38	Kestrel	1	5	5	0	0	0	cutover bog; flight, kestrel was perched on cut bank of peat with heather growing on top. started flying at low height. perched again.	SOB
K.243	VP2	20/08/2021	18:41	Kestrel	1	15	15	0	0	0	cutover bog; flight, after being perched for a few seconds kestrel then flew towards a bank of clay, which caused a merlin to fly into view.	SOB
K.244	VP2	20/08/2021	18:41	Kestrel	1	-	-	-	-	-	cutover bog and drainage ditches; perching, preening, juvenile kestrel perched on clay mound preening itself	SOB
K.245	VP2	20/08/2021	18:41	Kestrel	1	-	-	-	-	-	cutover bog; perched	SOB
K.246	VP6	24/08/2021	15:25	Kestrel	1	17	17	0	0	0	cutover bog, drainage ditches and scrub; being mobbed, male kestrel being mobbed by swallows. perched on black plastic. then flew out of sight behind mound of peat	SOB
K.247	VP6	24/08/2021	15:25	Kestrel	1	-	-	-	-	-	cutover bog and drainage ditches; perching, male kestrel	SOB
K.248	VP6	24/08/2021	17:35	Kestrel	1	14	14	0	0	0	cutover bog and drainage ditches; flight, perching, male kestrel flew from farmland into bog and perched on mound of peat	SOB
K.249	VP6	24/08/2021	17:36	Kestrel	1	16	16	0	0	0	cutover bog and drainage ditches; flight, male kestrel, flew low, caught mouse and perched to eat it.	SOB
K.250	VP6	24/08/2021	17:36	Kestrel	1	-	-	-	-	-	cutover bog and drainage ditches; eating, male kestrel perched on piece of wood eating mouse	SOB
K.251	VP6	24/08/2021	17:41	Kestrel	1	12	12	0	0	0	cutover bog; flight, male kestrel took flight, perched on sign then flew off again	SOB
K.252	VP1	02/09/2021	15:24	Kestrel	1	288	24	21	243	0	cutover bog, scrub and bog woodland; hunting, hovering, kestrel hovering alongside strips of bog woods and scrub. began hovering lower and dived down.	SOB
K.253	VP1	02/09/2021	15:36	Kestrel	1	181	22	30	129	0	cutover bog, bog woodland and scrub; hunting, kestrel hovering, ascended very high then dived down.	SOB
K.254	VP1	02/09/2021	15:46	Kestrel	1	11	11	0	0	0	cutover bog; flight, kestrel seen in distance briefly.	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.255	VP1	02/09/2021	15:58	Kestrel	1	125	8	22	95	0	cutover bog and scrub; hunting, hovering, kestrel hunting in distance. started hovering at lower height. lost sight in the distance.	SOB
K.256	VP1	02/09/2021	16:40	Kestrel	1	370	9	267	94	0	cutover bog, scrub and bog woodland; hunting, hovering, flight, hovering along bog woodland-line, gave up and flew across open bog, hovered again and dived down.	SOB
K.257	VP1	02/09/2021	16:58	Kestrel	1	47	47	0	0	0	cutover bog, scrub and bog woodland; flight, kestrel flew along trees, then across bog.	SOB
K.258	VP5	03/09/2021	18:00	Kestrel	1	31	31	0	0	0	scrub, cutover bog and drainage ditches; fighting, juvenile kestrel fighting hooded crows. perched on rowan tree.	SOB
K.259	VP5	03/09/2021	18:01	Kestrel	1	-	-	-	-	-	scrub and cutover bog; perched, fighting, juvenile kestrel perched on rowan tree, after fighting hooded crows. hooded crow flew at it, kestrel lunged with talons. hooded crow then sat beside kestrel, then flew off	SOB
K.260	VP5	03/09/2021	18:42	Kestrel	1	15	15	0	0	0	scrub and cutover bog; hunting, flight, juvenile kestrel. perched on small birch shrub/tree saw small bird, flew at it then returned to shrub.	SOB
K.261	VP5	03/09/2021	18:44	Kestrel	1	-	-	-	-	-	scrub and cutover bog; perched, preening, juvenile	SOB
K.262	VP5	03/09/2021	18:49	Kestrel	1	118	10	38	70	0	cutover bog, scrub and cutover bog; hunting, hovering, kestrel took off from birch shrub perch. flew after small passerine, then abandoned its initial quarry, flew away and started hovering over bog.	SOB
K.263	VP5	03/09/2021	20:14	Kestrel	1	46	0	5	41	0	cutover bog and drainage ditches; hovering, flight, kestrel hovering over the bog in front of the quarry. gave up and flew away. lost sight in background	SOB
K.264	VP2	09/09/2021	14:56	Kestrel	1	25	9	16	0	0	treelines; flight, kestrel flew towards bog. crows flew around it, then kestrel flew below tree height out of site.	SOB
K.265	VP2	09/09/2021	16:45	Kestrel	1	35	35	0	0	0	scrub, cutover bog and treelines; flight, perchdd, female kestrel flew across scrub, perched on tree	SOB
K.266	VP2	09/09/2021	16:49	Kestrel	1	10	10	0	0	0	treelines; flight, female kestrel, flew into treelines	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.267	VP2	09/09/2021	16:56	Kestrel	1	11	6	5	0	0	cutover bog and scrub; flight, kestrel flew across line of cutover bog and perched on ground in scrub out of sight.	SOB
K.268	VP2	09/09/2021	17:23	Kestrel	1	127	17	110	0	0	cutover bog, drainage ditches and scrub; hunting, hovering, male kestrel, hovering across cutover bog and drainage ditches, flew rapidly lower into scrub	SOB
K.269	VP2	09/09/2021	17:23	Kestrel	1	278	2	52	224	0	cutover bog and drainage ditches; hunting, hovering, kestrel hovering over cutover bog generally moving se. lost sight behind trees.	SOB
K.270	VP2	09/09/2021	18:45	Kestrel	1	90	0	22	68	0	cutover bog; flight, kestrel flew across bog, perched on met mast.	SOB
K.271	VP2	09/09/2021	18:46	Kestrel	1	-	-	-	-	-	cutover bog; perched, kestrel perched on central tower of met mast.	SOB
K.272	VP2	09/09/2021	18:55	Kestrel	1	8	0	0	8	0	cutover bog; flight, perched, kestrel flew to met mast and perched on wire	SOB
K.273	VP2	09/09/2021	19:06	Kestrel	2	-	-	-	-	-	cutover bog; perched preening, 2 kestrels perched on met mast. one on central tower, one on wire.	SOB
K.274	VP2	09/09/2021	19:24	Kestrel	1	30	20	10	0	0	cutover bog and treelines; flight, male kestrel flew from bog into treelines	SOB
K.275	VP2	09/09/2021	19:32	Kestrel	1	96	0	33	63	0	cutover bog; flight, kestrel flew up to met mast and perched on wire	SOB
K.276	VP2	09/09/2021	19:58	Kestrel	1	20	9	6	5	0	cutover bog, bog woodland and scrub; flight, kestrel flew off from met mast into trees and shrubs	SOB
K.277	VP6	15/09/2021	15:24	Kestrel	1	157	87	70	0	0	cutover bog, scrub and drainage ditches; hunting, hovering, male kestrel hovering near patch of scrub/trees in cutover bog. perched on spruce tree for 2 seconds while hunting.	SOB
K.278	VP6	15/09/2021	15:30	Kestrel	1	121	43	78	0	0	cutover bog, bog woodland and scrub; flight, hovering, male kestrel, hovering at different spots, then flew away over to agricultural land beside bog.	SOB
K.279	VP6	15/09/2021	16:14	Kestrel	1	26	21	15	0	0	cutover bog, treelines and drainage ditches; flight, hovering, kesteel seen hovering, then flew sw	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.280	VP4	22/09/2021	14:51	Kestrel	1	45	35	10	0	0	scrub, drainage ditches and treelines; hunting, hovering, kestrel hovering along roadside verge, staggered to hovering at lower heights then dived down.	SOB
K.281	VP4	22/09/2021	15:45	Kestrel	1	145	20	43	82	0	cutover bog, conifer plantation and scrub; hunting, hovering, male kestrel hovering beside road, flew over near conifers and hovered there. went out of sight behind vegetation.	SOB
K.282	VP4	22/09/2021	17:46	Kestrel	1	197	0	64	133	0	improved agricultural grassland, treelines and amenity grassland (improved); hovering, flight, kestrel hovering over fields near houses. started flying, then hovered again at a different location. then flew lower and out of sight behind trees.	SOB
K.283	VP1	07/10/2021	11:12	Kestrel	1	306	0	12	294	0	cutover bog, improved grassland and highly modified/non-native woodland; hunting, male bird observed. last seen descending into conifer plantation to the north of vp1.	CR
K.284	VP2	08/10/2021	10:04	Kestrel	1	67	10	57	0	0	cutover bog; hunting, dufficult to determine if male or female due to poor light. last seen heading north east at low altitude.	CR
K.285	VP2	08/10/2021	12:21	Kestrel	1	59	5	54	0	0	cutover bog; hunting, observed descending into line of trees.	CR
K.286	VP2	08/10/2021	12:29	Kestrel	1	18	10	8	0	0	cutover bog; flying, observed evading hooded crows.	CR
K.287	VP2	08/10/2021	12:54	Kestrel	1	47	10	37	0	0	cutover bog; hunting, obsereved descending beyond line of trees.	CR
K.288	VP2	08/10/2021	13:00	Kestrel	1	45	4	5	36	0	cutover bog; hunting, observed descending into line of trees.	CR
K.289	VP2	08/10/2021	13:26	Kestrel	1	108	2	5	101	0	cutover bog and improved grassland; hunting, observed descending beyond line of trees.	CR
K.290	VP3	18/10/2021	13:00	Kestrel	1	57	8	29	20	0	cutover bog; soaring, male bird observec heading north west.	CR
K.291	VP3	18/10/2021	14:17	Kestrel	1	312	5	55	252	0	cutover bog, improved grassland and highly modified/non-native woodland; hunting, male bird observed hunting. last seen descending into woodland to the north of vp.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.292	VP4	19/10/2021	09:48	Kestrel	1	51	25	26	0	0	cutover bog and bog woodland; hunting, male observed heading south.	CR
K.293	VP4	19/10/2021	12:39	Kestrel	1	47	20	27	0	0	bog woodland and cutover bog; hunting, female bird observed hunting. landed on tree near railway crossing.	CR
K.294	VP4	19/10/2021	12:40	Kestrel	1	-	-	-	-	-	cutover bog and bog woodland; perched, sane female kestrel observed intially at 12:39.	CR
K.295	VP4	19/10/2021	12:42	Kestrel	1	20	20	0	0	0	cutover bog and bog woodland; flying, same femake kestrel. landed on tree on edge of the bog.	CR
K.296	VP4	19/10/2021	12:42	Kestrel	1	-	-	-	-	-	cutover bog and bog woodland; perched, female kestrel remained perched on tree until 12:47.	CR
K.297	VP4	19/10/2021	12:47	Kestrel	1	236	58	62	116	0	bog woodland and cutover bog; hunting, female kestrel observed hunting for almost four minutes. descended into woodland to the west of vp4.	CR
K.298	VP5	20/10/2021	10:10	Kestrel	1	49	49	0	0	0	cutover bog; flying, female bird last seen heading south.	CR
K.299	VP5	20/10/2021	12:44	Kestrel	1	113	0	20	93	0	bog woodland and cutover bog; hunting, last seen heading north.	CR
K.300	VP5	20/10/2021	13:24	Kestrel	1	329	90	107	132	0	cutover bog, bog woodland and improved grassland; hunting, female burd observed hunting. last seen flying into woodland to the north east.	CR
K.301	VP5	20/10/2021	13:38	Kestrel	1	332	80	110	152	0	cutover bog; hunting, female bird observed hunting. last seen heading east.	CR
K.302	VP6	26/10/2021	13:17	Kestrel	1	103	2	28	73	0	cutover bog, highly modified/non-native woodland and improved grassland; flying, last seen diving into woodland.	CR
K.303	VP1	01/11/2021	13:27	Kestrel	1	32	32	0	0	0	cutover bog; hunting, female kestrel observed hunting. last seen descending beyond line of trees heading north.	CR
K.304	VP2	02/11/2021	12:32	Kestrel	1	333	0	62	271	0	cutover bog, improved grassland and highly modified/non-native woodland; hunting, kestrel observed hunting. last seen descending beyond line of trees.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.305	VP2	02/11/2021	12:54	Kestrel	1	24	6	18	0	0	improved grassland and cutover bog; hunting, observed descending below line of trees.	CR
K.306	VP2	02/11/2021	13:51	Kestrel	1	131	0	15	116	0	cutover bog and highly modified/non-native woodland; hunting, last seen heading east.	CR
K.307	VP2	02/11/2021	14:37	Kestrel	1	909	18	26	865	0	cutover bog, highly modified/non-native woodland and improved grassland; hunting, observed hunting for 15 minutes. last seen heading south west.	CR
K.308	VP3	03/11/2021	12:43	Kestrel	1	49	3	7	39	0	cutover bog and highly modified/non-native woodland; hunting, kestrel observed hunting on edge of bog to the east of vp. last seen descending into woodland.	CR
K.309	VP3	03/11/2021	12:54	Kestrel	1	89	5	26	57	0	cutover bog and highly modified/non-native woodland; hunting, kestrel observed hunting before descending into woodland.	CR
K.310	VP3	03/11/2021	14:11	Kestrel	1	131	12	14	105	0	cutover bog and highly modified/non-native woodland; hunting, observed heading east before descending into woodland.	CR
K.311	VP3	03/11/2021	14:18	Kestrel	1	583	34	99	450	0	cutover bog and highly modified/non-native woodland; hunting, kestrel observed hunting for almost 10 minutes. last seen descending beyond line of trees to the east of vp3.	CR
K.312	VP4	04/11/2021	12:41	Kestrel	1	96	8	57	31	0	cutover bog, bog woodland and improved grassland; hunting, last seen heading north west.	CR
K.313	VP5	05/11/2021	12:07	Kestrel	1	221	9	124	88	0	cutover bog, highly modified/non-native woodland and improved grassland; hunting, observed hunting before descending into the edge of a small woodland.	CR
K.314	VP5	05/11/2021	12:11	Kestrel	1	175	11	55	109	0	cutover bog and improved grassland; hunting, kestrel observed hunting before descending beyond line of trees.	CR
K.315	VP5	05/11/2021	12:32	Kestrel	1	107	37	49	21	0	cutover bog and bog woodland; hunting, observed hunting before descending into woodland.	CR
K.316	VP5	05/11/2021	12:33	Kestrel	1	-	-	-	-	-	cutover bog; roosting, kestrel perched on telegraph pole until 12:41.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.317	VP5	05/11/2021	12:36	Kestrel	1	60	23	10	27	0	cutover bog and improved grassland; flying, observed heading south west before landing on telegraph pole.	CR
K.318	VP5	05/11/2021	12:44	Kestrel	1	30	30	0	0	0	cutover bog; flying, observed departing telegraph pole heading south.	CR
K.319	VP5	05/11/2021	13:15	Kestrel	1	203	14	189	0	0	cutover bog and bog woodland; hunting, observed hunting before descending into woodland.	CR
K.320	VP5	05/11/2021	15:14	Kestrel	1	162	4	58	120	0	cutover bog and bog woodland; hunting, observed descending into woodland.	CR
K.321	VP5	05/11/2021	15:19	Kestrel	1	-	-	-	-	-	cutover bog and bog woodland; calling	CR
K.322	VP5	05/11/2021	15:23	Kestrel	1	221	17	153	51	0	cutover bog and bog woodland; hunting, observed heading north before descending into woodland.	CR
K.323	VP5	05/11/2021	16:28	Kestrel	1	368	0	41	327	0	cutover bog and highly modified/non-native woodland; hunting, observed heading south west.	CR
K.324	VP6	08/11/2021	12:31	Kestrel	2	282	26	81	175	0	highly modified/non-native woodland, improved grassland and cutover bog; flying, pair of kestrels observed flying in close association. last seen descending beyond line of trees heading north.	CR
K.325	VP6	08/11/2021	13:20	Kestrel	1	186	21	30	135	0	cutover bog and highly modified/non-native woodland; flying, getting mobbed by raven. last seen descending into woodland.	CR
K.326	VP6	08/11/2021	13:32	Kestrel	1	180	14	120	46	0	cutover bog and highly modified/non-native woodland; hunting, observed hunting before descending into woodland.	CR
K.327	VP6	08/11/2021	13:45	Kestrel	1	920	30	185	705	0	highly modified/non-native woodland, cutover bog and improved grassland; hunting, observed hunting for 15 minutes before descending into woodland.	CR
K.328	VP6	08/11/2021	15:23	Kestrel	1	130	5	15	110	0	cutover bog and highly modified/non-native woodland; hunting, observed heading west before descending into woodland.	CR
K.329	VP6	08/11/2021	15:46	Kestrel	1	89	10	64	15	0	highly modified/non-native woodland and cutover bog; hunting, observed hunting before descending into woodland.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.330	VP6	08/11/2021	16:30	Kestrel	1	186	12	47	127	0	highly modified/non-native woodland, cutover bog and improved grassland; hunting, observed hunting before descending into woodland.	CR
K.331	VP5	01/12/2021	13:09	Kestrel	1	55	22	33	0	0	improved grassland and cutover bog; flying, heading south west.	CR
K.332	VP1	02/12/2021	12:13	Kestrel	1	143	5	18	120	0	cutover bog; hunting, observed hunting before descending beyond line of trees.	CR
K.333	VP1	02/12/2021	12:50	Kestrel	1	293	4	17	272	0	cutover bog and scrub; hunting, descended into scrub.	CR
K.334	VP1	02/12/2021	13:01	Kestrel	1	426	0	11	426	0	cutover bog, scrub and highly modified/non-native woodland; hunting, observed hunting before descending into woodland.	CR
K.335	VP2	03/12/2021	10:02	Kestrel	1	81	3	11	67	0	cutover bog and highly modified/non-native woodland; hunting, observed hunting before descending into woodland.	CR
K.336	VP2	03/12/2021	14:06	Kestrel	1	110	2	8	100	0	cutover bog; hunting, observed hunting before descending beyond line of trees.	CR
K.337	VP3	06/12/2021	14:27	Kestrel	1	127	5	10	112	0	cutover bog, scrub and highly modified/non-native woodland; hunting, observed hunting before descending beyond line of trees.	CR
K.338	VP3	06/12/2021	14:32	Kestrel	1	10	10	0	0	0	cutover bog and highly modified/non-native woodland; flying, possibly same kestrel observed at 14:27. observed descending into woodland.	CR
K.339	VP6	13/12/2021	10:09	Kestrel	1	76	76	0	0	0	cutover bog and improved grassland; flying, male kestrel observed heading south west before landing on a tree. remained perched until 10:17.	CR
K.340	VP6	13/12/2021	10:10	Kestrel	1	-	-	-	-	-	improved grassland; roosting, perched on tree until 10:17.	CR
K.341	VP6	13/12/2021	10:17	Kestrel	1	6	6	0	0	0	improved grassland; flying, same male kestrel observed at 10:09. last seen heading south west.	CR
K.342	VP6	13/12/2021	13:59	Kestrel	1	43	10	33	0	0	cutover bog and highly modified/non-native woodland; flying, last seen descending into woodland.	CR
K.343	VP2	10/01/2022	16:24	Kestrel	1	325	5	37	283	0	cutover bog and highly modified/non-native woodland; hunting, last seen heading south.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.344	VP3	19/01/2022	12:52	Kestrel	1	51	39	12	0	0	cutover bog and improved grassland; hunting, observed hunting. last seen heading north west.	CR
K.345	VP3	19/01/2022	13:13	Kestrel	1	94	3	6	85	0	cutover bog and scrub; hunting., hunting; last seen heading south east.	CR
K.346	VP6	26/01/2022	12:45	Kestrel	1	860	60	100	700	0	cutover bog; foraging, female hunting	AOD
K.347	VP6	26/01/2022	14:16	Kestrel	1	40	0	40	0	0	cutover bog; flying, flying over	AOD
K.348	VP6	26/01/2022	14:55	Kestrel	1	80	0	50	30	0	cutover bog; foraging	AOD
K.349	VP6	26/01/2022	15:15	Kestrel	1	150	50	50	50	0	cutover bog; foraging, female	AOD
K.350	VP2	22/02/2022	08:56	Kestrel	1	420	0	0	420	0	cutover bog; flying	NS
K.351	VP2	22/02/2022	09:17	Kestrel	1	40	0	40	0	0	cutover bog; flying, male	NS
K.352	VP2	22/02/2022	10:26	Kestrel	1	60	0	0	60	0	cutover bog; flying	NS
K.353	VP2	22/02/2022	11:21	Kestrel	1	120	0	0	120	0	cutover bog; flying	NS
K.354	VP2	22/02/2022	11:41	Kestrel	1	414	0	14	400	0	cutover bog; flying	NS
K.355	VP4	25/02/2022	08:17	Kestrel	1	48	20	28	0	0	cutover bog; flying, chased and dive bombed by rook	NS
K.356	VP4	25/02/2022	11:52	Kestrel	1	20	0	0	20	0	cutover bog; flying	NS
K.357	VP3	28/02/2022	09:20	Kestrel	1	-	-	-	-	-	cutover bog; perched	NS
K.358	VP3	28/02/2022	09:52	Kestrel	1	36	0	36	0	0	cutover bog; flying	NS
K.359	VP3	28/02/2022	10:13	Kestrel	1	19	0	19	0	0	cutover bog; flying	NS
K.360	VP3	28/02/2022	11:05	Kestrel	1	32	32	0	0	0	cutover bog; flying	NS
K.361	VP6	01/03/2022	10:10	Kestrel	1	36	10	26	0	0	cutover bog; flying	NS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.362	VP4	14/03/2022	15:03	Kestrel	1	199	6	10	183	0	cutover bog, improved grassland and conifer plantation; hunting, observed hunting before descending into woodland.	CR
K.363	VP4	14/03/2022	15:09	Kestrel	1	166	5	79	82	0	conifer plantation, cutover bog and improved grassland; flying, flying in association with another kestrel for short time. last seen heading north.	CR
K.364	VP4	14/03/2022	15:09	Kestrel	1	70	5	65	0	0	conifer plantation and cutover bog; flying, last seen heading north.	CR
K.365	VP4	14/03/2022	15:24	Kestrel	1	238	8	10	220	0	cutover bog, improved grassland and conifer plantation; hunting, observed hunting before descending into woodland to the north.	CR
K.366	VP1	14/03/2022	17:22	Kestrel	1	38	0	38	0	0	cutover bog; flying	NS
K.367	VP2	15/03/2022	14:26	Kestrel	1	91	2	9	80	0	cutover bog and scrub; hunting, observed hunting before descending beyond row of trees.	CR
K.368	VP6	07/04/2022	11:17	Kestrel	1	119	10	17	92	0	cutover bog and conifer plantation; hunting	CR
K.369	VP3	11/04/2022	06:53	Kestrel	1	104	0	0	104	0	cutover bog; flying	NS
K.370	VP3	11/04/2022	11:05	Kestrel	1	120	0	0	120	0	cutover bog; flying	NS
K.371	VP5	13/04/2022	11:57	Kestrel	1	42	2	40	0	0	cutover bog; flying, male, hovering and then swooping into field	NS
K.372	VP4	19/04/2022	09:38	Kestrel	1	78	0	0	78	0	cutover bog; flying	NS
K.373	VP4	19/04/2022	10:36	Kestrel	1	29	29	0	0	0	improved agricultural grassland; flying, male, landed on post in field	NS
K.374	VP2	21/04/2022	07:00	Kestrel	1	540	0	0	540	0	cutover bog; flying	NS
K.375	VP2	21/04/2022	10:44	Kestrel	1	143	0	0	143	0	cutover bog; flying	NS
K.376	VP1	24/05/2022	20:29	Kestrel	1	205	29	18	158	0	scrub; hunting, same kestrel observed at 20:22. dove into scrubland.	CR
K.377	VP1	24/05/2022	20:33	Kestrel	1	159	11	62	86	0	scrub and cutover bog; hunting, same kestrel. last seen heading north.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.378	VP1	24/05/2022	21:06	Kestrel	1	350	13	158	179	0	scrub and cutover bog; hunting, last seen heading north.	CR
K.379	VP2	25/05/2022	20:18	Kestrel	1	137	89	7	41	0	cutover bog; flying, heading south east	CR
K.380	VP2	25/05/2022	20:20	Kestrel	1	78	2	11	65	0	cutover bog and scrub; flying, most likely same kestrel observed at 20.18. last seen heading south east.	CR
K.381	VP2	25/05/2022	21:08	Kestrel	1	19	19	0	0	0	cutover bog and scrub; hunting, male observed hunting before landing on telegraph pole.	CR
K.382	VP2	25/05/2022	21:08	Kestrel	1	-	-	-	-	-	scrub; roosting, regained perched on telegraph pole until 21:19.	CR
K.383	VP2	25/05/2022	21:19	Kestrel	1	9	9	0	0	0	scrub; flying, heading south east.	CR
K.384	VP3	31/05/2022	20:53	Kestrel	1	110	2	3	105	0	improved grassland and cutover bog; hunting, observed diving into bog.	CR
K.385	VP5	03/06/2022	17:40	Kestrel	1	155	2	32	121	0	cutover bog and bog woodland; hunting, last seen heading west.	CR
K.387	VP2	16/06/2022	14:16	Kestrel	1	158	23	29	31	75	cutover bog; hunting, observed hunting before diving in bog.	CR
K.388	VP2	16/06/2022	14:30	Kestrel	1	98	4	12	82	0	cutover bog; hunting, heading south.	CR
K.389	VP2	16/06/2022	14:51	Kestrel	1	83	10	52	21	0	scrub; hunting, heading south west.	CR
K.390	VP2	16/06/2022	14:57	Kestrel	1	75	10	65	0	0	scrub; hunting, heading south east.	CR
K.391	VP2	16/06/2022	18:17	Kestrel	1	153	6	17	130	0	cutover bog and scrub; hunting, heading south.	CR
K.392	VP2	16/06/2022	18:24	Kestrel	1	130	5	62	63	0	cutover bog and scrub; hunting	CR
K.394	VP5	01/07/2022	17:31	Kestrel	1	288	12	82	194	0	cutover bog and scrub; hunting, male last seen heading north.	CR
K.395	VP6	09/07/2022	18:20	Kestrel	1	65	3	6	56	0	cutover bog and bog woodland; flying, female heading north.	CR
K.396	VP1	25/07/2022	14:51	Kestrel	1	51	4	10	37	0	scrub; hunting, female bird.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.397	VP1	25/07/2022	14:54	Kestrel	1	30	6	14	10	0	scrub and cutover bog; hunting, same female bird.	CR
K.398	VP1	25/07/2022	14:56	Kestrel	1	102	3	22	77	0	scrub and cutover bog; flying, same female bird.	CR
K.399	VP1	25/07/2022	14:59	Kestrel	1	27	8	19	0	0	scrub; flying, same female.	CR
K.400	VP1	25/07/2022	15:15	Kestrel	1	43	10	33	0	0	scrub; flying, most likely same female.	CR
K.401	VP1	25/07/2022	15:22	Kestrel	1	111	10	59	42	0	scrub and cutover bog; hunting	CR
K.402	VP1	25/07/2022	15:26	Kestrel	1	171	15	113	43	0	scrub and cutover bog; hunting, same female kestrel. last seen heading north east.	CR
K.403	VP1	25/07/2022	16:09	Kestrel	1	263	9	44	210	0	cutover bog and scrub; hunting, likely same female kestrel. last seen heading heading north east.	CR
K.404	VP1	25/07/2022	16:17	Kestrel	1	223	16	60	147	0	scrub and cutover bog; hunting, female kestrel.	CR
K.405	VP1	25/07/2022	16:25	Kestrel	1	137	3	19	115	0	scrub and cutover bog; hunting, female kestrel.	CR
K.406	VP1	25/07/2022	16:33	Kestrel	1	185	10	76	99	0	scrub and cutover bog; hunting, female last seen heading west.	CR
K.407	VP2	26/07/2022	13:24	Kestrel	1	131	28	14	89	0	scrub and cutover bog; flying, last seen heading south west.	CR
K.408	VP2	26/07/2022	13:26	Kestrel	1	12	12	0	0	0	cutover bog; flying, joined kestrel first observed at 13:24.	CR
K.409	VP2	26/07/2022	15:24	Kestrel	1	12	12	0	0	0	scrub and cutover bog; flying, landed on telegraph post.	CR
K.410	VP2	26/07/2022	15:24	Kestrel	1	-	-	-	-	-	cutover bog and scrub; perched	CR
K.411	VP2	26/07/2022	15:33	Kestrel	1	9	9	0	0	0	scrub and cutover bog; flying, left telegraph post heading west.	CR
K.412	VP2	26/07/2022	17:53	Kestrel	1	8	8	0	0	0	scrub; flying, heading east.	CR
K.413	VP5	02/08/2022	19:55	Kestrel	1	25	25	0	0	0	cutover bog and highly modified/non-native woodland; flying, heading north.	CR
K.414	VP3	03/08/2022	15:37	Kestrel	1	246	3	23	154	66	cutover bog, scrub and bog woodland; hunting, last seen heading east.	CR

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K.415	VP3	03/08/2022	15:53	Kestrel	1	64	3	6	55	0	bog woodland and cutover bog; hunting, last seen heading north east.	CR
K.416	VP3	03/08/2022	16:16	Kestrel	1	383	0	0	185	198	bog woodland, cutover bog and scrub; hunting/soaring, last seen heading into the clouds	CR
K.417	VP4	05/08/2022	17:20	Kestrel	1	68	0	50	10	0	cutover bog, scrub and improved grassland; hunting, last seen heading north.	CR
K.418	VP2	08/08/2022	15:22	Kestrel	1	142	10	11	121	0	cutover bog and scrub; hunting, female observed hunting before landing on telegraph post.	CR
K.419	VP2	08/08/2022	15:25	Kestrel	1	-	-	-	-	-	cutover bog; perched, same female kestrel observed at 15:22 pm.	CR
K.420	VP2	08/08/2022	15:26	Kestrel	1	950	25	43	882	0	cutover bog and scrub; hunting, female kestrel observed hunting. last seen heading south west.	CR
K.421	VP2	08/08/2022	16:11	Kestrel	1	291	15	56	220	0	cutover bog and bog woodland; hunting, last seen heading east.	CR
K.422	VP2	08/08/2022	16:42	Kestrel	1	327	22	105	200	0	cutover bog and scrub; hunting	CR
K.423	VP1	09/08/2022	15:00	Kestrel	1	215	4	21	190	0	cutover bog and highly modified/non-native woodland; hunting	CR
K.424	VP4	16/08/2022	16:42	Kestrel	1	-	-	-	-	-	cutover bog and scrub; calling	CR
K.425	VP1	25/08/2022	17:37	Kestrel	1	98	2	7	89	0	scrub and cutover bog; hunting, last seen heading north.	CR
K.426	VP5	02/09/2022	15:55	Kestrel	1	192	56	12	124	0	cutover bog and highly modified/non-native woodland; hunting	CR
K.427	VP5	02/09/2022	16:07	Kestrel	1	359	5	16	338	0	cutover bog and highly modified/non-native woodland; hunting	CR
K.428	VP5	02/09/2022	18:11	Kestrel	1	15	15	0	0	0	cutover bog and improved grassland; flying	CR
K.429	VP4	05/09/2022	18:46	Kestrel	1	98	7	10	79	0	cutover bog and scrub; hunting, male heading north west.	CR
K.430	VP4	05/09/2022	20:17	Kestrel	1	214	0	5	209	0	cutover bog; hunting, heading east.	CR
K.431	VP4	05/09/2022	20:31	Kestrel	1	30	30	0	0	0	cutover bog; flying, heading north.	CR

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K.432	VP2	12/09/2022	17:21	Kestrel	1	432	5	7	420	0	cutover bog and scrub; hunting, last seen heading north west.	CR
K.433	VP5	06/10/2022	11:43	Kestrel	1	100	40	40	0	0	cutover bog; hunting	CR
K.434	VP5	06/10/2022	11:47	Kestrel	1	317	4	43	270	0	cutover bog; hunting	CR
K.435	VP5	06/10/2022	12:02	Kestrel	1	121	4	43	93	0	cutover bog and highly modified/non-native woodland; hunting, last seen heading north.	CR
K.436	VP4	07/10/2022	12:20	Kestrel	1	145	10	26	109	0	cutover bog; hunting, female; last seen heading north-west.	CR
K.437	VP3	25/10/2022	09:48	Kestrel	1	31	10	21	0	0	cutover bog and highly modified/non-native woodland; flying	CR
K.438	VP3	25/10/2022	11:46	Kestrel	1	307	6	22	279	0	cutover bog and improved grassland; hunting	CR
K.439	VP4	10/11/2022	12:48	Kestrel	1	67	23	16	28	0	cutover bog and highly modified/non-native woodland; flying, juvenile kestrel heading north east.	CR
K.440	VP3	14/11/2022	13:16	Kestrel	1	65	5	60	0	0	cutover bog and scrub; hunting, male kestrel hunting.	CR
K.441	VP3	14/11/2022	13:20	Kestrel	1	189	11	13	165	0	cutover bog and scrub; hunting, likely same male bird sighted at 13:16 pm. last seen heading south west.	CR
K.442	VP2	15/11/2022	12:29	Kestrel	1	376	3	9	288	76	cutover bog and highly modified/non-native woodland; hunting, last seen heading north.	CR
K.443	VP2	15/11/2022	14:17	Kestrel	1	158	0	4	154	0	scrub, cutover bog and improved grassland; hunting, last seen heading south.	CR
K.444	VP2	15/11/2022	15:27	Kestrel	1	318	17	60	241	0	cutover bog; hunting, heading north west.	CR
K.445	VP2	15/11/2022	15:50	Kestrel	1	46	35	11	0	0	cutover bog; flying, male observed heading south west.	CR
K.446	VP1	16/11/2022	13:32	Kestrel	1	369	3	6	360	0	cutover bog and scrub; hunting, male last seen heading north west.	CR
K.447	VP4	06/12/2022	12:21	Kestrel	1	280	0	0	280	0	cutover bog, highly modified/non-native woodland and scrub; hunting, observed hunting before landing on mast antenna.	CR
K.448	VP5	02/02/2023	11:54	Kestrel	1	172	10	53	109	0	cutover bog and highly modified/non-native woodland; hunting, male last seen heading east.	CR

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K.449	VP5	02/02/2023	12:17	Kestrel	1	86	12	30	44	0	cutover bog and highly modified/non-native woodland; hunting, male heading south west before landing on telegraph pole.	CR
K.450	VP5	02/02/2023	12:46	Kestrel	1	13	13	0	0	0	cutover bog; flying, same male last seen heading south.	CR
K.451	VP6	14/03/2023	13:10	Kestrel	1	356	67	288	0	0	cutover bog and improved grassland; hunting, female heading west.	CR
K.452	VP3	16/03/2023	14:31	Kestrel	1	71	50	21	0	0	improved grassland and scrub; hunting, female heading south west.	CR
K.453	VP2	30/03/2023	16:10	Kestrel	1	446	68	40	338	0	cutover bog and scrub; hunting, female heading west.	CR
K.454	VP2	30/03/2023	16:24	Kestrel	1	136	5	11	120	0	cutover bog, scrub and improved grassland; soaring/hunting, last seen heading west	CR
K.455	VP3	31/03/2023	18:47	Kestrel	1	290	4	4	282	0	cutover bog and scrub; hunting, last seen heading south west.	CR
K.457	VP2	02/06/2023	07:30	Kestrel	1	63	63	0	0	0	cutover bog; flying, male heading north east.	CR
K.458	VP2	02/06/2023	08:40	Kestrel	1	27	27	0	0	0	cutover bog; flying	CR
K.459	VP2	02/06/2023	11:47	Kestrel	1	343	6	30	187	120	cutover bog; hunting	CR
K.460	VP4	08/06/2023	14:57	Kestrel	1	64	0	30	34	0	cutover bog; hunting	CR
K.461	VP1	14/06/2023	16:53	Kestrel	1	101	17	5	79	0	cutover bog and improved grassland; flying	CR
K.462	VP1	14/06/2023	16:59	Kestrel	1	155	19	35	101	0	cutover bog; hunting	CR
K.463	VP1	14/06/2023	21:02	Kestrel	1	609	3	6	600	0	cutover bog; hunting	CR
K.464	VP1	14/06/2023	21:15	Kestrel	1	128	6	19	103	0	cutover bog; hunting	CR
K.465	VP6	16/06/2023	13:15	Kestrel	1	311	2	9	300	0	cutover bog, highly modified/non-native woodland and improved grassland; hunting	CR
K.467	VP6	16/06/2023	15:06	Kestrel	1	134	3	11	120	0	cutover bog and highly modified/non-native woodland; hunting	CR
K.468	VP6	16/06/2023	15:08	Kestrel	2	23	8	15	0	0	highly modified/non-native woodland; flying/calling	CR

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K.469	VP6	16/06/2023	15:18	Kestrel	1	119	18	26	75	0	cutover bog and highly modified/non-native woodland; hunting	CR
K.470	VP4	04/07/2023	18:29	Kestrel	1	37	27	10	0	0	cutover bog; flying	CR
K.471	VP5	06/07/2023	17:14	Kestrel	1	40	18	7	15	0	cutover bog and active quarries and mines; hunting	CR
K.472	VP3	07/07/2023	17:39	Kestrel	1	11	11	0	0	0	cutover bog and highly modified/non-native woodland; flying	CR
K.473	VP6	12/07/2023	14:05	Kestrel	1	43	33	10	0	0	cutover bog; flying	CR
K.474	VP3	18/07/2023	12:12	Kestrel	1	50	50	0	0	0	cutover bog; flying	CR
K.475	VP3	18/07/2023	12:21	Kestrel	1	22	22	0	0	0	cutover bog and improved grassland; flying	CR
K.476	VP1	21/07/2023	11:27	Kestrel	1	110	5	8	97	0	cutover bog; hunting	CR
K.477	VP1	21/07/2023	12:11	Kestrel	1	22	22	0	0	0	cutover bog; flying, male bird.	CR
K.478	VP2	27/07/2023	10:21	Kestrel	1	34	34	0	0	0	cutover bog; hunting	CR
K.479	VP2	27/07/2023	12:19	Kestrel	1	135	6	7	122	0	cutover bog; hunting	CR
K.480	VP2	27/07/2023	12:45	Kestrel	1	58	24	14	20	0	cutover bog; hunting	CR
K.481	VP2	27/07/2023	12:48	Kestrel	1	36	3	5	28	0	cutover bog; hunting	CR
K.482	VP2	27/07/2023	12:53	Kestrel	1	130	52	78	0	0	cutover bog; hunting	CR
K.483	VP2	27/07/2023	14:35	Kestrel	1	130	10	6	114	0	cutover bog; hunting, female.	CR
K.484	VP2	27/07/2023	15:08	Kestrel	1	54	54	0	0	0	cutover bog; flying	CR
K.485	VP5	01/08/2023	18:49	Kestrel	1	-	-	-	-	-	cutover bog; perched/calling, perched on telegraph pole until 19:00 pm.	CR
K.487	VP6	03/08/2023	16:56	Kestrel	1	117	18	59	40	0	cutover bog; hunting	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.488	VP6	03/08/2023	17:33	Kestrel	1	149	79	22	48	0	cutover bog; hunting	JH
K.489	VP3	04/08/2023	10:50	Kestrel	1	151	19	72	60	0	cutover bog; hunting	CR
K.490	VP1	08/08/2023	15:53	Kestrel	1	36	36	0	0	0	cutover bog; flying	CR
K.491	VP1	08/08/2023	17:09	Kestrel	1	349	20	29	300	0	cutover bog; hunting, female bird.	CR
K.492	VP2	10/08/2023	13:06	Kestrel	1	41	16	25	0	0	cutover bog; hunting	CR
K.493	VP5	16/08/2023	16:40	Kestrel	1	20	20	0	0	0	cutover bog; flying, landed on telegraph where it remained until 16:53 pm.	CR
K.494	VP5	16/08/2023	16:53	Kestrel	1	25	25	0	0	0	cutover bog; flying	CR
K.495	VP5	16/08/2023	20:52	Kestrel	1	116	2	19	95	0	cutover bog; hunting	CR
K.496	VP5	17/08/2023	13:24	Kestrel	1	160	54	77	29	0	cutover bog; hunting, female bird.	CR
K.497	VP6	17/08/2023	15:18	Kestrel	1	94	5	20	69	0	improved grassland and highly modified/non-native woodland; flying	CR
K.498	VP6	17/08/2023	18:40	Kestrel	1	26	26	0	0	0	cutover bog; flying, male bird.	CR
K.499	VP6	17/08/2023	19:45	Kestrel	1	63	3	38	22	0	cutover bog; hunting	CR
K.500	VP4	18/08/2023	12:53	Kestrel	1	72	40	5	27	0	cutover bog; hunting	CR
K.501	VP4	18/08/2023	13:37	Kestrel	1	281	26	90	165	0	cutover bog and improved grassland; hunting, female bird.	CR
K.502	VP4	18/08/2023	15:00	Kestrel	1	233	58	135	40	0	cutover bog and improved grassland; hunting	CR
K.503	VP5	18/09/2023	15:42	Kestrel	1	468	42	107	319	0	cutover bog, highly modified/non-native woodland and improved grassland; hunting, female bird heading north west.	CR
K.504	VP5	18/09/2023	16:32	Kestrel	1	319	93	109	117	0	cutover bog; hunting, female bird, initially observed flying with male. last seen heading east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.505	VP5	18/09/2023	16:32	Kestrel	1	213	58	70	85	0	cutover bog; hunting, male bird, initially observed flying with female. last seen heading north.	CR
K.506	VP4	20/09/2023	12:38	Kestrel	1	142	66	49	27	0	cutover bog; hunting	CR
K.507	VP2	28/09/2023	10:02	Kestrel	1	83	27	8	48	0	cutover bog; hunting	CR
K.508	VP2	28/09/2023	13:08	Kestrel	1	70	7	10	53	0	cutover bog; flying, female bird, last seen heading north.	CR
K.509	VP1	29/09/2023	13:00	Kestrel	1	-	-	-	-	-	improved grassland; calling	CR
K.510	VP6	30/09/2023	08:29	Kestrel	1	88	0	0	88	0	improved grassland; hunting	CR
K.511	VP6	30/09/2023	09:31	Kestrel	1	7	7	0	0	0	cutover bog; flying, male bird heading north.	CR
K.512	VP5	13/10/2023	11:40	Kestrel	1	200	127	33	40	0	cutover bog; flying, female being mobbed by hooded crow.	CR
K.513	VP3	16/10/2023	17:59	Kestrel	1	12	12	0	0	0	cutover bog; flying, male, landed on shrub where it remained perched until 18:02 pm.	CR
K.514	VP3	16/10/2023	18:02	Kestrel	1	81	81	0	0	0	cutover bog; flying, same male bird observed at 17:59 pm.	CR
K.515	VP3	24/11/2023	13:11	Kestrel	1	77	6	5	66	0	cutover bog; hunting	CR
K.516	VP6	29/11/2023	11:49	Kestrel	1	19	19	0	0	0	cutover bog; flying, landed on tree where it remained perched until 11:55 am.	CR
K.517	VP6	29/11/2023	11:55	Kestrel	1	56	17	13	26	0	cutover bog; flying	CR
K.518	VP3	13/12/2023	15:47	Kestrel	1	49	49	0	0	0	cutover bog and highly modified/non-native woodland; flying	CR
K.519	VP4	18/12/2023	13:15	Kestrel	1	373	5	8	360	0	cutover bog and improved grassland; hunting	CR
K.520	VP2	20/12/2023	16:06	Kestrel	1	61	0	0	61	0	improved agricultural grassland and bogs; hunting	JD
K.521	VP2	17/01/2024	12:08	Kestrel	1	-	-	-	-	-	scrub/transitional woodland; perched, perched for 6 minutes before dropping down behind treeline	JD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.522	VP1	24/01/2024	13:23	Kestrel	1	263	0	100	163	0	bogs and scrub/transitional woodland; flying, hovering	JD
K.523	VP1	24/01/2024	13:34	Kestrel	1	36	0	36	0	0	scrub/transitional woodland and bogs; hovering	JD
K.524	VP1	24/01/2024	14:01	Kestrel	1	531	0	231	300	0	bogs and scrub/transitional woodland; flying, hovering	JD
K.525	VP3	25/01/2024	12:16	Kestrel	1	656	26	100	400	130	scrub/transitional woodland and bogs; flying, mobbed, briefly perched 53 seconds into flight before taking off again, mobbed by hooded crow for 50 seconds	JD
K.526	VP3	25/01/2024	12:38	Kestrel	1	74	24	50	0	0	scrub/transitional woodland and bogs; flying	JD
K.527	VP3	25/01/2024	13:30	Kestrel	1	51	0	51	0	0	scrub/transitional woodland and bogs; hovering	JD
K.528	VP3	25/01/2024	13:47	Kestrel	1	503	0	203	300	0	scrub/transitional woodland, bogs and conifer plantation; flying, hovering	JD
K.529	VP4	26/01/2024	13:33	Kestrel	1	103	10	45	48	0	scrub/transitional woodland; flying, hovering	JD
K.530	VP6	07/02/2024	16:43	Kestrel	1	38	38	0	0	0	bogs and scrub/transitional woodland; flying	JD
K.531	VP6	07/02/2024	16:44	Kestrel	1	-	-	-	-	-	scrub/transitional woodland; perched, perched for 4 minutes	JD
K.532	VP6	07/02/2024	16:45	Kestrel	1	27	27	0	0	0	scrub/transitional woodland and mixed broadleaved woodland; flying	JD
K.533	VP3	21/02/2024	16:17	Kestrel	1	56	3	10	43	0	cutover bog and improved grassland; flying	CR
K.534	VP5	27/02/2024	13:08	Kestrel	1	206	0	16	110	80	mixed broadleaved/conifer woodland; flying, hovering	JD
K.535	VP5	27/02/2024	13:17	Kestrel	1	91	0	0	91	0	scrub/transitional woodland and bogs; hovering	JD
K.536	VP5	27/02/2024	13:18	Kestrel	1	24	5	5	14	0	bogs and scrub/transitional woodland; flying	JD
K.537	VP5	27/02/2024	13:35	Kestrel	1	515	30	85	350	50	bogs, mixed broadleaved/conifer woodland and scrub/transitional woodland; flying, hovering	JD
K.538	VP5	27/02/2024	15:25	Kestrel	1	624	4	20	300	300	mixed broadleaved/conifer woodland; flying, hovering	JD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.539	VP2	08/03/2024	10:22	Kestrel	1	315	5	10	300	0	cutover bog and scrub/transitional woodland; hunting, male	CR
K.540	VP5	15/03/2024	07:08	Kestrel	1	56	40	16	0	0	bogs and scrub/transitional woodland; flying	JD
K.541	VP5	15/03/2024	10:35	Kestrel	1	371	0	100	271	0	semi-natural woodland, bogs and scrub/transitional woodland; flying, hovering	JD
K.542	VP5	15/03/2024	10:36	Kestrel	1	67	0	0	67	0	scrub/transitional woodland and improved agricultural grassland; flying, hovering	JD
K.544	VP5	15/03/2024	12:35	Kestrel	1	303	0	50	150	103	bogs, scrub/transitional woodland and semi-natural woodland; flying, hovering	JD
K.545	VP5	15/03/2024	12:45	Kestrel	1	321	0	50	271	0	bogs, semi-natural woodland and scrub/transitional woodland; flying, soaring	JD
K.546	VP5	15/03/2024	12:46	Kestrel	1	407	0	30	300	77	semi-natural woodland and bogs; flying, soaring	JD
K.547	VP5	15/03/2024	12:58	Kestrel	1	625	50	75	400	100	semi-natural woodland, bogs and scrub/transitional woodland; flying, hovering	JD
K.548	VP1	03/04/2024	16:38	Kestrel	1	47	0	47	0	0	cutover bog; flying, male	NL
K.549	VP3	10/04/2024	16:00	Kestrel	1	544	44	100	400	0	cutover bog and scrub; hunting	CG
K.550	VP3	10/04/2024	16:21	Kestrel	1	368	18	50	300	0	cutover bog and scrub; hunting, male	CG
K.551	VP3	10/04/2024	16:43	Kestrel	1	68	45	15	8	0	cutover bog, scrub and improved agricultural grassland; hunting, male	CG
K.553	VP4a	17/04/2024	16:46	Kestrel	1	13	13	0	0	0	hedgerows; hunting	NL
K.554	VP4a	17/04/2024	20:01	Kestrel	1	82	2	80	0	0	hedgerows; hunting	NL
K.555	VP4a	17/04/2024	20:35	Kestrel	1	-	-	-	-	-	cutover bog; preening on roof of tractor, hopped onto ground after a few minutes.	NL
K.556	VP6	18/04/2024	20:22	Kestrel	1	68	0	68	0	0	cutover bog; hunting	NL
K.557	VP2	29/04/2024	15:48	Kestrel	1	175	0	175	0	0	bogs and bog woodland; hunting	PDC
K.558	VP2	29/04/2024	15:49	Kestrel	1	172	0	172	0	0	bogs and bog woodland; hunting	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.559	VP2	29/04/2024	15:50	Kestrel	1	25	0	25	0	0	bogs; hunting, seen in distance behind previous kestrel sighting	PDC
K.560	VP2	29/04/2024	16:10	Kestrel	1	72	10	62	0	0	scrub/transitional woodland; travelling	PDC
K.561	VP2	29/04/2024	16:13	Kestrel	1	66	0	66	0	0	bogs and bog woodland; hunting	PDC
K.562	VP2	29/04/2024	16:15	Kestrel	1	25	0	25	0	0	scrub/transitional woodland; hunting	PDC
K.564	VP3	05/06/2024	11:01	Kestrel	1	25	25	0	0	0	cutover bog; hunting, commuting, male	CG
K.565	VP3	05/06/2024	14:44	Kestrel	1	72	32	40	0	0	scrub and cutover bog; hunting	CG
K.566	VP6	06/06/2024	15:09	Kestrel	1	15	5	5	5	0	cutover bog; hunting	CG
K.567	VP1	18/06/2024	09:05	Kestrel	1	21	0	21	0	0	bogs and scrub/transitional woodland; hunting, not sure where it went, probably dropped into scrub	PDC
K.568	VP5	18/06/2024	09:37	Kestrel	1	166	2	8	156	0	highly modified/non-native woodland; hovering, diving into trees	NL
K.569	VP1	18/06/2024	10:20	Kestrel	1	465	0	465	0	0	bogs and scrub/transitional woodland; hunting, spotted whilst watching previous buzzard	PDC
K.570	VP1	18/06/2024	10:23	Kestrel	1	15	15	0	0	0	bogs and scrub/transitional woodland; travelling, briefly seen above scrub but then it dropped behind scrub.	PDC
K.571	VP1	18/06/2024	11:08	Kestrel	1	23	23	0	0	0	bogs and scrub/transitional woodland; travelling, came out of scrub with second kestrel in tow, then dropped back into scrub.	PDC
K.572	VP1	18/06/2024	11:09	Kestrel	1	425	10	415	0	0	bogs and scrub/transitional woodland; hunting, followed previous kestrel out of scrub and carried on hunting after first bird had dropped again.	PDC
K.573	VP1	18/06/2024	11:12	Kestrel	1	29	29	0	0	0	bogs and scrub/transitional woodland; hunting, presumably same bird as previous sighting	PDC
K.574	VP1	18/06/2024	11:33	Kestrel	1	160	0	160	0	0	bogs and conifer plantation; hunting, female	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.575	VP1	18/06/2024	11:56	Kestrel	1	330	0	330	0	0	bogs and scrub/transitional woodland; hunting, lost behind scrub	PDC
K.576	VP1	18/06/2024	11:57	Kestrel	1	105	0	105	0	0	bogs; hunting	PDC
K.577	VP2	19/06/2024	06:19	Kestrel	1	11	0	11	0	0	improved agricultural grassland; travelling	PDC
K.579	VP2	19/06/2024	08:42	Kestrel	1	430	0	430	0	0	scrub/transitional woodland; hunting	PDC
K.580	VP2	19/06/2024	09:41	Kestrel	1	230	0	0	230	0	scrub/transitional woodland and bogs; hunting	PDC
K.581	VP2	19/06/2024	10:16	Kestrel	1	120	0	0	0	120	scrub/transitional woodland; hunting	PDC
K.582	VP2	19/06/2024	10:37	Kestrel	1	46	46	0	0	0	bogs; hunting	PDC
K.583	VP2	19/06/2024	11:40	Kestrel	1	280	0	280	0	0	scrub/transitional woodland and bogs; hunting	PDC
K.584	VP1	10/07/2024	08:09	Kestrel	1	142	130	12	0	0	bogs, scrub and conifer plantation; hunting, travelling, female	PDC
K.585	VP1	10/07/2024	08:11	Kestrel	1	85	85	0	0	0	bogs and scrub; hunting, travelling, male, followed female out of scrub over forestry, then headed off alone	PDC
K.586	VP1	10/07/2024	08:13	Kestrel	1	15	0	15	0	0	conifer plantation; travelling, female briefly reappeared when male kestrel reached forestry.	PDC
K.587	VP1	10/07/2024	09:04	Kestrel	1	327	0	327	0	0	bogs and scrub; hunting, female, lost behind scrub	PDC
K.588	VP1	10/07/2024	09:05	Kestrel	1	190	0	190	0	0	bogs and scrub; hunting, dropped onto bog or into scrub	PDC
K.589	VP1	10/07/2024	09:07	Kestrel	1	181	160	21	0	0	bogs, scrub and conifer plantation; hunting, came up at same time as previous, distant kestrel	PDC
K.590	VP1	10/07/2024	09:08	Kestrel	1	23	23	0	0	0	bogs and scrub; hunting, male, briefly seen over scrub then lost behind scrub	PDC
K.591	VP1	10/07/2024	10:21	Kestrel	1	513	0	302	211	0	bogs and scrub; hunting, female	PDC
K.592	VP1	10/07/2024	10:22	Kestrel	1	450	0	450	0	0	bogs and scrub; hunting, male, lost when dropped into scrub	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.593	VP1	10/07/2024	10:25	Kestrel	1	945	0	945	0	0	bogs and scrub; hunting, female, exact flight line is a bit hazy as the male came up to join the female after about 450 seconds	PDC
K.594	VP1	10/07/2024	10:27	Kestrel	1	480	0	480	0	0	bogs and scrub; hunting, male, came over to join female. pair hunted briefly together then split up.	PDC
K.595	VP1	10/07/2024	11:27	Kestrel	1	507	20	442	45	0	bogs and scrub; hunting, female	PDC
K.596	VP1	10/07/2024	11:30	Kestrel	1	240	0	0	240	0	bogs; travelling, lost against bright sky	PDC
K.597	VP1	10/07/2024	11:51	Kestrel	1	135	0	135	0	0	bogs and scrub/transitional woodland; hunting, lost behind scrub	PDC
K.598	VP2	11/07/2024	07:16	Kestrel	2	41	41	0	0	0	bogs; travelling, two males, possibly young birds, chasing each other and dropping onto bog, then taking off again before dropping into scrub	PDC
K.599	VP2	11/07/2024	07:19	Kestrel	1	48	48	0	0	0	bogs; hunting, male, was perched on bog then briefly hunted before dropping into scrub	PDC
K.600	VP2	11/07/2024	08:07	Kestrel	1	33	33	0	0	0	bogs; travelling, female or juvenile, very low over bog	PDC
K.601	VP2	11/07/2024	08:39	Kestrel	3	91	0	91	0	0	scrub and bogs; travelling, hunting, came out of scrub together, then dropped behind scrub again. one male, two female/juvenile	PDC
K.602	VP2	11/07/2024	08:41	Kestrel	1	301	0	301	0	0	bogs and scrub; hunting, came back out of scrub alone to hunt. female or juvenile.	PDC
K.603	VP2	11/07/2024	08:42	Kestrel	1	350	0	350	0	0	bogs and scrub; hunting, spotted whilst still watching the previous kestrel hunting.	PDC
K.604	VP2	11/07/2024	08:44	Kestrel	2	123	0	123	0	0	scrub and bogs; hunting, travelling, presumably two of the three spotted together earlier.	PDC
K.605	VP2	11/07/2024	09:14	Kestrel	1	170	0	170	0	0	bogs; hunting	PDC
K.606	VP2	11/07/2024	10:35	Kestrel	1	340	85	255	0	0	bogs and scrub; hunting	PDC
K.607	VP2	11/07/2024	10:37	Kestrel	1	185	0	185	0	0	scrub and bogs; mobbing, hunting, mobbed a buzzard which appeared at about the same time	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.608	VP2	11/07/2024	10:43	Kestrel	1	91	0	91	0	0	scrub and bogs; hunting, came up from and dropped back into scrub	PDC
K.609	VP2	11/07/2024	11:40	Kestrel	1	195	0	195	0	0	bogs and linear woodland/scrub; hunting	PDC
K.610	VP2	11/07/2024	11:41	Kestrel	1	11	11	0	0	0	bogs and scrub; travelling, briefly seen low over bog, moving between scrubby areas	PDC
K.611	VP2	11/07/2024	12:12	Kestrel	1	545	30	515	0	0	bogs and scrub; perched, hunting, male, spotted perched on a post on the bog before flying	PDC
K.612	VP4a	11/07/2024	12:56	Kestrel	1	10	10	0	0	0	bogs; flying	NL
K.613	VP4a	11/07/2024	13:49	Kestrel	1	240	240	0	0	0	hedgerows; hunting, hovering, female, missing tail feather	NL
K.614	VP4a	11/07/2024	14:19	Kestrel	1	261	261	0	0	0	hedgerows; hunting, same female as previous	NL
K.615	VP4a	11/07/2024	14:21	Kestrel	1	25	25	0	0	0	bogs; flying low, begging, landed on bog twice, then stayed on the ground out of sight. young male bird.	NL
K.616	VP3	15/07/2024	09:05	Kestrel	1	374	0	0	374	0	bogs and scrub; hunting, perching, perched on wind speed mast a couple of times	PDC
K.617	VP3	15/07/2024	09:50	Kestrel	1	38	12	26	0	0	bogs and scrub; travelling	PDC
K.618	VP3	15/07/2024	10:39	Kestrel	1	54	54	0	0	0	bogs and scrub; travelling, perching, male, came out of scrub on bog. dropped briefly onto bog, scratching around before flying somewhere else and doing the same again.	PDC
K.619	VP3	15/07/2024	11:30	Kestrel	1	37	0	37	0	0	bogs; travelling	PDC
K.620	VP3	15/07/2024	11:32	Kestrel	2	277	15	65	197	0	bogs; hunting	PDC
K.621	VP3	15/07/2024	11:33	Kestrel	1	91	91	0	0	0	bogs, improved agricultural grassland and conifer plantation; hunting, male	PDC
K.622	VP6	16/07/2024	11:16	Kestrel	1	92	92	0	0	0	bogs; hunting, perching, female or juvenile, perched for over 20 minutes in small bush after hunting over the bog	PDC
K.623	VP5	19/07/2024	08:25	Kestrel	1	53	0	53	0	0	cutover bog; hunting	KS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.624	VP5	19/07/2024	10:03	Kestrel	1	45	5	40	0	0	improved agricultural grassland; hunting dropped	KS
K.625	VP5	19/07/2024	10:27	Kestrel	1	164	4	10	150	0	cutover bog; hunting, dropped	KS
K.626	VP5	19/07/2024	11:46	Kestrel	1	228	0	228	0	0	cutover bog; hunting, female. dropped once, unsuccessful	KS
K.627	VP5	19/07/2024	11:59	Kestrel	1	20	0	0	20	0	bog woodland and cutover bog; hunting	KS
K.628	VP5	19/07/2024	13:03	Kestrel	1	253	20	200	33	0	improved agricultural grassland; hunting	KS
K.629	VP5	19/07/2024	13:14	Kestrel	1	48	0	48	0	0	improved agricultural grassland; hunting	KS
K.630	VP2	08/08/2024	09:11	Kestrel	1	89	0	89	0	0	bogs and scrub; travelling, dropped into scrub	PDC
K.633	VP3	12/08/2024	10:46	Kestrel	1	470	0	145	325	0	bogs and scrub; hunting, male	PDC
K.634	VP3	12/08/2024	11:35	Kestrel	1	235	0	0	235	0	scrub, linear woodland/scrub and bogs; hunting	PDC
K.635	VP3	12/08/2024	11:36	Kestrel	1	96	0	96	0	0	bogs and scrub/transitional woodland; hunting	PDC
K.636	VP5	14/08/2024	12:09	Kestrel	1	84	84	0	0	0	bogs; travelling, female, spotted whilst watching previous buzzard. stopped watching buzzard to follow this bird.	PDC
K.637	VP5	14/08/2024	12:19	Kestrel	1	46	0	46	0	0	bogs and linear woodland/scrub; hunting, dropped behind treeline	PDC
K.638	VP1	05/09/2024	11:35	Kestrel	1	143	0	0	143	0	bogs and scrub; hunting, soaring, distant sighting so hard to tell exactly where it was	PDC
K.639	VP2	11/09/2024	08:06	Kestrel	1	342	0	342	0	0	bogs and scrub/transitional woodland; hunting, mobbed, perched, mobbed by flock of hirundines, perched for a couple of minutes on top of tree	PDC
K.640	VP2	11/09/2024	09:51	Kestrel	1	160	160	0	0	0	bogs; hunting, seemed to land on the bog	PDC
K.641	VP2	11/09/2024	10:24	Kestrel	1	24	24	0	0	0	bogs; hunting, briefly seen whilst watching greenshank. seemed to drop onto bog.	PDC
K.642	VP2	11/09/2024	10:26	Kestrel	1	21	21	0	0	0	bogs; hunting, lost behind scrub	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.643	VP2	11/09/2024	10:26	Kestrel	1	51	51	0	0	0	bogs; hunting, travelling, male, lost behind scrub.	PDC
K.644	VP2	11/09/2024	10:43	Kestrel	1	383	0	383	0	0	bogs and scrub; hunting, dropped	PDC
K.645	VP2	11/09/2024	11:04	Kestrel	1	31	0	31	0	0	highly modified/non-native woodland; travelling, lost behind trees	PDC
K.646	VP2	11/09/2024	11:26	Kestrel	1	36	0	36	0	0	highly modified/non-native woodland and hedgerows; travelling, hunting	PDC
K.647	VP2	11/09/2024	11:27	Kestrel	1	26	0	26	0	0	bogs and highly modified/non-native woodland; hunting	PDC
K.648	VP2	11/09/2024	11:29	Kestrel	1	125	0	125	0	0	highly modified/non-native woodland and improved grassland; hunting	PDC
K.649	VP2	11/09/2024	11:48	Kestrel	1	40	0	40	0	0	highly modified/non-native woodland and hedgerows; travelling, hunting	PDC
K.650	VP2	11/09/2024	12:31	Kestrel	1	138	0	138	0	0	scrub and bogs; hunting	PDC
K.651	VP2	11/09/2024	12:35	Kestrel	1	46	46	0	0	0	bogs and scrub; travelling, perched, perched briefly on telegraph pole behind bnm hut, then dropped into trees	PDC
K.652	VP2	11/09/2024	12:37	Kestrel	1	101	101	0	0	0	bogs and scrub; hunting, male	PDC
K.653	VP3	12/09/2024	10:26	Kestrel	1	385	0	385	0	0	bogs and scrub; hunting	PDC
K.654	VP3	12/09/2024	10:42	Kestrel	1	175	0	175	0	0	bogs and scrub; hunting	PDC
K.655	VP3	12/09/2024	11:07	Kestrel	1	330	0	0	300	0	bogs and scrub; hunting, lost against bright sky.	PDC
K.656	VP3	12/09/2024	11:31	Kestrel	1	47	47	0	0	0	bogs and scrub; travelling, hunting, dropped into scrub	PDC
K.657	VP3	12/09/2024	12:05	Kestrel	1	975	0	0	975	0	bogs, scrub and highly modified/non-native woodland; hunting, male, lost in distance against clouds	PDC
K.658	VP6	17/09/2024	11:18	Kestrel	1	21	21	0	0	0	scrub and improved agricultural grassland; travelling, male, came out from scrub then dropped back in.	PDC
K.659	VP5	19/09/2024	10:45	Kestrel	1	20	20	0	0	0	bogs; travelling, male, mobbed by two hooded crows	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.660	VP5	19/09/2024	11:22	Kestrel	1	340	65	275	0	0	bogs and scrub; travelling, hunting, male, perched briefly, seemed to be knocked off perch by other kestrel	PDC
K.661	VP5	19/09/2024	11:26	Kestrel	1	20	20	0	0	0	bogs and scrub; travelling, mobbing, seemed to knock other kestrel off perch	PDC
K.662	VP5	19/09/2024	12:06	Kestrel	1	200	20	180	0	0	bogs and scrub; hunting	PDC
K.663	VP5	19/09/2024	12:29	Kestrel	1	45	45	0	0	0	cutover bog; hunting, travellling, male	PDC
K.664	VP5	19/09/2024	12:31	Kestrel	1	185	185	0	0	0	cutover bog; hunting, travelling, female	PDC
K.665	VP2	23/10/2024	14:59	Kestrel	1	1078	200	400	478	0	bogs; hunting	FOD
K.666	VP2	23/10/2024	16:47	Kestrel	1	92	30	62	0	0	bogs; huntnb	FOD
K.667	VP5	15/10/2024	14:35	Kestrel	1	327	27	300	0	0	highly modified/non-native woodland and cutover bog; hunting	CC
K.668	VP4	16/10/2024	15:31	Kestrel	1	1863	300	1000	563	0	cutover bog; hunting	CC
K.669	VP4	16/10/2024	17:34	Kestrel	1	540	40	400	100	0	cutover bog; hunting	CC
K.670	VP4	16/10/2024	18:05	Kestrel	1	7	7	0	0	0	cutover bog; travelling	CC
K.671	VP4	16/10/2024	18:31	Kestrel	1	496	150	246	100	0	cutover bog; hunting	CC
K.672	VP3	24/10/2024	15:40	Kestrel	1	108	0	108	0	0	improved agricultural grassland and semi-natural woodland; hunting	CC
K.673	VP6	31/10/2024	12:47	Kestrel	1	86	86	0	0	0	cutover bog; hunting	CC
K.674	VP6	31/10/2024	13:10	Kestrel	1	57	7	50	0	0	cutover bog; hunting	CC
K.675	VP6	31/10/2024	15:45	Kestrel	1	196	30	166	0	0	cutover bog; hunting	CC
K.676	VP5	20/11/2024	13:24	Kestrel	1	787	100	500	187	0	cutover bog; hunting	CC
K.677	VP6	21/11/2024	11:03	Kestrel	1	34	0	34	0	0	cutover bog; travelling	CC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.678	VP2	28/11/2024	12:32	Kestrel	1	16	13	3	0	0	bogs; hunting	FOD
K.679	VP2	28/11/2024	15:44	Kestrel	1	58	45	13	0	0	bogs; traveling	FOD
K.680	VP5	04/12/2024	10:56	Kestrel	1	104	50	54	0	0	cutover bog; hunting, dropping, male	KS
K.681	VP5	04/12/2024	11:34	Kestrel	1	15	0	15	0	0	cutover bog; mobbed	KS
K.682	VP5	04/12/2024	13:02	Kestrel	1	20	20	0	0	0	cutover bog; travelling	KS
K.683	VP5	04/12/2024	15:08	Kestrel	1	77	20	57	0	0	cutover bog; hunting, dropping	KS
K.684	VP5	04/12/2024	15:37	Kestrel	1	50	0	50	0	0	cutover bog; hunting	KS
K.685	VP6	22/01/2025	12:45	Kestrel	1	327	50	200	72	0	improved agricultural grassland and treelines; hunting	CC
K.686	VP5	29/01/2025	08:43	Kestrel	1	545	100	400	45	0	scrub and cutover bog; hunting	CC
K.687	VP5	29/01/2025	09:01	Kestrel	1	82	0	20	62	0	cutover bog and immature woodland; hunting	CC
K.688	VP5	29/01/2025	09:19	Kestrel	1	671	200	471	0	0	scrub and cutover bog; hunting	CC
K.689	VP2	15/01/2025	08:56	Kestrel	1	77	0	77	0	0	cutover bog, linear woodland/scrub and improved grassland; flying	ZE
K.690	VP2	15/01/2025	13:26	Kestrel	1	17	17	0	0	0	scrub/transitional woodland and bogs; flying, hovering	ZE
K.691	VP3	16/01/2025	10:16	Kestrel	1	40	5	15	20	0	cutover bog; flying, hovering	ZE
K.692	VP5	21/02/2025	15:13	Kestrel	1	92	20	72	0	0	lowland blanket bog and improved agricultural grassland; hunting	CC
K.693	VP1	11/02/2025	16:19	Kestrel	1	217	37	30	150	0	cutover bog and scrub/transitional woodland; hunting, female	ZE
K.694	VP2	12/02/2025	15:55	Kestrel	1	166	166	0	0	0	cutover bog and scrub/transitional woodland; hunting, female	ZE
K.695	VP1	11/03/2025	11:34	Kestrel	1	237	37	100	100	0	cutover bog and semi-natural woodland; hunting	ZE

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
K.696	VP1	11/03/2025	11:43	Kestrel	1	73	13	10	50	0	cutover bog and semi-natural woodland; hunting	ZE
K.697	VP1	11/03/2025	12:30	Kestrel	1	190	5	5	180	0	cutover bog and semi-natural woodland; flying, hovering, hunting	ZE
K.698	VP2	12/03/2025	10:04	Kestrel	1	686	16	70	600	0	cutover bog, semi-natural woodland and scrub/transitional woodland; flying, hovering, hunting, female	ZE
K.699	VP2	12/03/2025	10:13	Kestrel	1	325	225	50	50	0	cutover bog, semi-natural woodland and improved agricultural grassland; flying, hovering, same female	ZE
K.700	VP2	12/03/2025	12:18	Kestrel	1	127	7	60	60	0	cutover bog, semi-natural woodland and scrub/transitional woodland; flying, hovering	ZE
K.701	VP2	12/03/2025	12:25	Kestrel	1	88	48	40	0	0	cutover bog; flying, hovering	ZE
K.702	VP5	06/03/2025	10:03	Kestrel	1	351	300	51	0	0	cutover bog and scrub/transitional woodland; hunting	CC

Table 13-2 Kestrel Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.002	21/04/2021	12:12	-	Kestrel	1	cutover bog; hovering, high hovering (suitable nesting habitat; possible breeder)	TR
K.003	22/04/2021	11:05	-	Kestrel	1	mixed broadleaved woodland, scrub and cutover bog; hovering high, hovering for 4mins (suitable nesting habitat; possible breeder)	TR
K.004	22/04/2021	11:19	-	Kestrel	1	cutover bog, drainage ditches and mixed broadleaved woodland; hunting, male hovering low for 5-6mins (suitable nesting habitat; possible breeder)	TR
K.007	14/05/2021	13:20	-	Kestrel	1	cutover bog, drainage ditches and scrub; hunting/ high circling, male, dived at prey then went into high circling flight (flyover; non-breeding)	TR
K.008	17/05/2021	12:20	-	Kestrel	1	cutover bog, drainage ditches and mixed broadleaved woodland; hunting, male hovering (suitable nesting habitat; possible breeder)	TR
K.009	17/05/2021	13:36	-	Kestrel	1	scrub, mixed broadleaved woodland and hedgerows; rising low from suitable breeding habitat to hunt over farmland, male (suitable nesting habitat; possible breeder)	TR
K.011	17/05/2021	16:48	-	Kestrel	1	stone walls and other stonework, cutover bog and mixed broadleaved woodland; hovering, going towards suitable breeding habitat (suitable nesting habitat; possible breeder)	TR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.012	18/05/2021	13:29	-	Kestrel	1	cutover bog, hedgerows and scrub; hunting, going towards suitable breeding habitat, out of view behind scrub (suitable nesting habitat; possible breeder)	TR
K.013	18/05/2021	14:58	-	Kestrel	1	cutover bog, scrub and drainage ditches; hunting, male hovering along scrub before travelling n (flyover; non-breeding)	TR
K.014	18/05/2021	16:08	-	Kestrel	1	conifer plantation and cutover bog; hunting, hovering briefly, outof view behind trees (flyover; non-breeding)	TR
K.015	16/06/2021	15:57	-	Kestrel	1	cutover bog, scrub and mixed broadleaved woodland; hunting, hovering before travelling away from site (suitable nesting habitat; possible breeder)	TR
K.016	16/06/2021	15:59	-	Kestrel	2	improved agricultural grassland, mixed broadleaved woodland and scrub; hunting, pair hunting (pair; probable breeding)	TR
K.018	18/06/2021	15:27	-	Kestrel	1	cutover bog; travelling then hunting, male seen in previous surveys carrying food in opposite direction (flyover; non-breeding)	TR
K.019	30/06/2021	12:05	-	Kestrel	2	semi-natural grassland, cutover bog and hedgerows; hunting, male and female hunting along edge of cutover/grassland. seen in this area since april hunting (pair; probable breeding)	TR
K.020	30/06/2021	12:09	-	Kestrel	1	cutover bog and semi-natural grassland; hunting, male hunting first, then high circling (suitable nesting habitat; possible breeder)	TR
K.024	29/07/2021	10:18	-	Kestrel	1	cutover bog, improved agricultural grassland and treelines; flying, kestrel flew across open cutover bog near vp1 over scrub and across railway track and into fields behind. ()	SOB
K.025	29/07/2021	10:48	-	Kestrel	1	scrub, cutover bog and improved agricultural grassland; flying, kestrel seen briefly flying across stretch of heather on overgrown cutover bog near end of transect. ()	SOB
K.026	29/07/2021	12:52	-	Kestrel	1	cutover bog, bog woodland and scrub; hunting, kestrel hovering for 3 mins then glided down a bit, resumed hoveringthen flying a few metres to another hovering spot. ()	SOB
K.027	27/04/2022	15:00	-	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting (suitable nesting habitat; possible breeder)	CR
K.028	28/04/2022	13:47	-	Kestrel	1	cutover bog and scrub; hunting (suitable nesting habitat; possible breeder)	CR
K.029	09/05/2022	13:13	-	Kestrel	1	improved grassland and depositing/lowland rivers; hunting, male kestrel last seen heading south. (suitable nesting habitat; possible breeder)	CR
K.030	10/05/2022	15:05	-	Kestrel	1	scrub and cutover bog; hunting., male kestrel intially observed perched on telegraph pole before hunting over bog. caught rodent. (suitable nesting habitat; possible breeder)	CR
K.031	10/05/2022	15:16	-	Kestrel	1	scrub and cutover bog; flying, same kestrel observed at 15:06 heading north. (suitable nesting habitat; possible breeder)	CR
K.032	10/05/2022	15:42	-	Kestrel	1	cutover bog and scrub; hunting, male last seen heading north east. (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.033	12/05/2022	14:17	-	Kestrel	1	cutover bog and bog woodland; hunting, male last seen heading south. (suitable nesting habitat; possible breeder)	CR
K.034	02/06/2022	21:38	-	Kestrel	1	conifer plantation; flying, male (suitable nesting habitat; possible breeder)	CR
K.036	17/06/2022	15:51	-	Kestrel	1	cutover bog, scrub and bog woodland; hunting, female kestrel observed hunting before heading south. (suitable nesting habitat; possible breeder)	CR
K.037	17/06/2022	16:15	-	Kestrel	1	bog woodland; flying, female last seen heading south. (suitable nesting habitat; possible breeder)	CR
K.038	28/06/2022	12:20	-	Kestrel	1	scrub and cutover bog; hunting, female kestrel hunting, last seen heading north. (suitable nesting habitat; possible breeder)	CR
K.039	28/06/2022	13:30	-	Kestrel	1	scrub and cutover bog; flying, female heading west. (suitable nesting habitat; possible breeder)	CR
K.040	20/07/2022	12:16	-	Kestrel	1	cutover bog; flying, male kestrel observed landing in tree. (suitable nesting habitat; possible breeder)	CR
K.041	20/07/2022	12:25	-	Kestrel	1	cutover bog; flying, make left area heading north. (suitable nesting habitat; possible breeder)	CR
K.042	04/04/2023	14:12	-	Kestrel	1	cutover bog; hunting (suitable nesting habitat; possible breeder)	CR
K.043	04/04/2023	17:53	-	Kestrel	1	improved grassland; hunting (suitable nesting habitat; possible breeder)	CR
K.044	04/04/2023	19:17	-	Kestrel	1	improved grassland; flying, male (suitable nesting habitat; possible breeder)	CR
K.045	06/04/2023	13:10	-	Kestrel	1	cutover bog and scrub; hunting (suitable nesting habitat; possible breeder)	CR
K.046	06/04/2023	13:29	-	Kestrel	1	highly modified/non-native woodland and cutover bog; hunting (suitable nesting habitat; possible breeder)	CR
K.047	06/04/2023	15:07	-	Kestrel	1	cutover bog, disturbed ground and highly modified/non-native woodland; hunting, male (suitable nesting habitat; possible breeder)	CR
K.048	06/04/2023	15:23	-	Kestrel	1	cutover bog and highly modified/non-native woodland; calling (suitable nesting habitat; possible breeder)	CR
K.049	06/04/2023	15:23	-	Kestrel	1	cutover bog, disturbed ground and improved grassland; hunting, male (suitable nesting habitat; possible breeder)	CR
K.050	06/04/2023	16:03	-	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, male (suitable nesting habitat; possible breeder)	CR
K.052	17/05/2023	16:30	-	Kestrel	1	cutover bog; hunting (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.053	17/05/2023	18:35	-	Kestrel	1	cutover bog; hunting (suitable nesting habitat; possible breeder)	CR
K.054	26/05/2023	13:48	-	Kestrel	1	cutover bog; hunting, male last seen heading east. (suitable nesting habitat; possible breeder)	CR
K.057	29/05/2023	18:32	-	Kestrel	1	improved grassland; flying, both female birds, last seen heading north. (suitable nesting habitat; possible breeder)	CR
K.058	27/06/2023	19:10	-	Kestrel	1	cutover bog; hunting (suitable nesting habitat; possible breeder)	CR
K.059	28/06/2023	17:21	-	Kestrel	1	cutover bog; flying, adult female. (suitable nesting habitat; possible breeder)	CR
K.062	28/06/2023	17:36	-	Kestrel	2	cutover bog and highly modified/non-native woodland; flying, adult male and female. (pair; probable breeding)	CR
K.065	28/06/2023	19:05	-	Kestrel	1	cutover bog and improved grassland; hunting, adult female intially observed with male. last seen headed north. (pair; probable breeding)	CR
K.066	28/06/2023	19:05	-	Kestrel	1	cutover bog, improved grassland and highly modified/non-native woodland; hunting, adult male intially observed with female. last seen heading south west. (pair; probable breeding)	CR
K.067	28/06/2023	19:15	-	Kestrel	1	highly modified/non-native woodland; hunting (suitable nesting habitat; possible breeder)	CR
K.069	19/07/2023	18:50	-	Kestrel	1	cutover bog; flying, male with damaged tail feathers. (suitable nesting habitat; possible breeder)	CR
K.070	19/07/2023	19:13	-	Kestrel	1	cutover bog; flying, same male bird observed at 18:50 pm. (suitable nesting habitat; possible breeder)	CR
K.071	26/07/2023	19:23	-	Kestrel	1	improved grassland; flying, female. (pair; probable breeding)	CR
K.072	26/07/2023	19:30	-	Kestrel	1	improved grassland; flying (suitable nesting habitat; possible breeder)	CR
K.073	27/05/2024	09:10	T1	Kestrel	1	bogs and conifer plantation; hunting, male, lost when he dropped onto bog and didn't reappear (suitable nesting habitat; possible breeder)	PDC
K.074	29/05/2024	05:45	T3	Kestrel	1	bogs; hunting (suitable nesting habitat; possible breeder)	PDC
K.075	24/06/2024	11:22	T1	Kestrel	1	improved agricultural grassland, scrub/transitional woodland and linear woodland/scrub; hunting, female, lost behind treeline (suitable nesting habitat; possible breeder)	PDC
K.076	24/06/2024	11:23	T1	Kestrel	1	bogs and improved agricultural grassland; hunting (suitable nesting habitat; possible breeder)	PDC

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.077	25/06/2024	08:34	T2	Kestrel	1	bogs and scrub/transitional woodland; hunting (suitable nesting habitat; possible breeder)	PDC
K.078	25/06/2024	08:52	T2	Kestrel	1	bogs; hunting (flyover; non-breeding)	PDC
K.079	25/06/2024	08:53	T2	Kestrel	1	bogs and scrub/transitional woodland; hunting, spotted in distance while watching lapwing (suitable nesting habitat; possible breeder)	PDC
K.080	25/06/2024	11:13	T2	Kestrel	1	highly modified/non-native woodland and bogs; hunting (suitable nesting habitat; possible breeder)	PDC
K.081	26/06/2024	08:23	T3	Kestrel	1	bogs and highly modified/non-native woodland; hunting (suitable nesting habitat; possible breeder)	PDC
K.082	26/06/2024	08:23	T3	Kestrel	1	bogs and highly modified/non-native woodland; travelling (suitable nesting habitat; possible breeder)	PDC
K.083	26/06/2024	10:40	T3	Kestrel	1	highly modified/non-native woodland and bogs; travelling (flyover; non-breeding)	PDC
K.084	26/06/2024	10:43	T3	Kestrel	1	bogs, highly modified/non-native woodland and scrub/transitional woodland; hunting (suitable nesting habitat; possible breeder)	PDC
K.085	26/06/2024	10:45	T3	Kestrel	1	bogs and scrub/transitional woodland; travelling (suitable nesting habitat; possible breeder)	PDC

Table 13-3 Kestrel Breeding Raptor Survey Data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.001	BR3	10/04/2021	08:30	Kestrel	1	bogs and semi-natural grassland, hunting, male	flyover; non-breeding	SA
K.002	BR6	22/04/2021	16:15	Kestrel	1	bogs, hunting, ad male	flyover; non-breeding	SA
K.003	BR8	23/04/2021	08:45	Kestrel	1	conifer plantation, hunting, ad male	suitable nesting habitat; possible breeder	SA
K.004	BR1	09/05/2021	11:00	Kestrel	1	bogs, hunting, ad male	flyover; non-breeding	SA
K.005	BR5	22/05/2021	11:55	Kestrel	1	bogs, hunting, ad male	flyover; non-breeding	SA
K.006	BR4	23/05/2021	07:05	Kestrel	1	bogs and scrub/transitional woodland, hunting (attempted strike), ad male	suitable nesting habitat; possible breeder	SA
K.007	BR7	30/05/2021	06:05	Kestrel	1	bogs, scrub/transitional woodland and conifer plantation, flying & hunting, ad male	suitable nesting habitat; possible breeder	SA

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.008	BR7	30/05/2021	07:40	Kestrel	1	bogs and conifer plantation, flying, ad male	suitable nesting habitat; possible breeder	SA
K.009	BR8	30/05/2021	09:50	Kestrel	1	conifer plantation, hunting, ad male	suitable nesting habitat; possible breeder	SA
K.010	BR4	19/06/2021	08:36	Kestrel	1	bogs and scrub/transitional woodland, hunting, ad.	suitable nesting habitat; possible breeder	SA
K.012	BR5	20/06/2021	08:20	Kestrel	1	bogs and conifer plantation, flying & hunting, ad female.	suitable nesting habitat; possible breeder	SA
K.013	BR5	20/06/2021	08:22	Kestrel	1	bogs and conifer plantation, hunting, ad male	suitable nesting habitat; possible breeder	SA
K.014	BR7	20/06/2021	14:15	Kestrel	1	bogs and semi-natural woodland, hunting, ad male	suitable nesting habitat; possible breeder	SA
K.015	BR1	28/06/2021	16:15	Kestrel	1	bogs and scrub/transitional woodland, flying & hunting, ad female.	suitable nesting habitat; possible breeder	SA
K.016	BR9	28/06/2021	18:50	Kestrel	1	bogs and scrub/transitional woodland, hunting, ad male.	suitable nesting habitat; possible breeder	SA
K.017	BR1	05/07/2021	18:06	Kestrel	1	cutover bog and mixed broadleaved woodland, hunting	suitable nesting habitat; possible breeder	JG
K.018	BR1	05/07/2021	18:52	Kestrel	1	mixed broadleaved woodland and cutover bog, hunting	suitable nesting habitat; possible breeder	JG
K.019	BR1	05/07/2021	19:12	Kestrel	2	mixed broadleaved woodland and cutover bog, hunting, possible breeding, lost them after they both went below the treeline	pair; probable breeding	JG
K.020	BR2	06/07/2021	17:07	Kestrel	1	improved agricultural grassland and cutover bog, hunting	suitable nesting habitat; possible breeder	JG
K.021	BR3	07/07/2021	18:32	Kestrel	1	cutover bog and conifer plantation, hunting	suitable nesting habitat; possible breeder	JG
K.022	BR5	12/07/2021	18:05	Kestrel	1	cutover bog and highly modified/non-native woodland, hunting, male, perched on tree used to hunt	singing male; possible breeder	JG
K.023	BR6	27/07/2021	11:54	Kestrel	1	cutover bog and mixed broadleaved woodland, hunting, female	suitable nesting habitat; possible breeder	JG
K.024	BR6	27/07/2021	14:00	Kestrel	1	cutover bog, hunting	suitable nesting habitat; possible breeder	JG
K.025	BR1	05/04/2022	11:01	Kestrel	1	cutover bog and scrub, hunting, male kestrel last seen heading south-west.	suitable nesting habitat; possible breeder	CR
K.026	BR3	11/04/2022	12:34	Kestrel	1	cutover bog and conifer plantation, hunting, male bird last seen heading west into woodland.	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.027	BR3	11/04/2022	12:56	Kestrel	1	cutover bog and conifer plantation, hunting, male kestrel	suitable nesting habitat; possible breeder	CR
K.028	BR3	11/04/2022	15:23	Kestrel	1	scrub, hunting, male last seen heading west.	suitable nesting habitat; possible breeder	CR
K.029	BR6	13/04/2022	15:09	Kestrel	1	cutover bog and highly modified/non-native woodland, flying, heading north	suitable nesting habitat; possible breeder	CR
K.030	BR4	16/05/2022	17:00	Kestrel	1	cutover bog, hunting	suitable nesting habitat; possible breeder	CR
K.031	BR4	16/05/2022	17:00	Kestrel	1	cutover bog, hunting, heading north east.	suitable nesting habitat; possible breeder	CR
K.032	BR4	16/05/2022	17:51	Kestrel	1		suitable nesting habitat; possible breeder	CR
K.033	BR4	16/05/2022	17:51	Kestrel	1	highly modified/non-native woodland, hunting, observed heading north east.	suitable nesting habitat; possible breeder	CR
K.034	BR3	17/05/2022	16:12	Kestrel	1	cutover bog, conifer plantation and improved grassland, hunting, last seen heading east.	suitable nesting habitat; possible breeder	CR
K.035	BR6	25/05/2022	16:55	Kestrel	2	highly modified/non-native woodland and improved grassland, flying, male and female observed flying together. heading north east at high altitude.	pair; probable breeding	CR
K.036	BR6	25/05/2022	17:04	Kestrel	1	improved grassland, flying, one of the kestrels first observed at 16:56 pm. last seen heading north west at low altitude.	suitable nesting habitat; possible breeder	CR
K.037	BR7	26/05/2022	16:07	Kestrel	1	highly modified/non-native woodland and cutover bog, hunting, female kestrel observed hunting.	suitable nesting habitat; possible breeder	CR
K.038	BR7	26/05/2022	16:10	Kestrel	1	highly modified/non-native woodland, cutover bog and improved grassland, hunting, female kestrel observed hunting for few minutes. joined by male kestrel and were observed landing in nest in tree.	suitable nesting habitat; possible breeder	CR
K.049	BR4	09/06/2022	15:26	Kestrel	1	cutover bog and scrub, hunting	suitable nesting habitat; possible breeder	CR
K.053	BR6	10/06/2022	15:10	Kestrel	1	cutover bog, hunting, male last observed heading north.	suitable nesting habitat; possible breeder	CR
K.066	BR5	09/07/2022	10:45	Kestrel	1	improved grassland, flying, male left tree heading south east. no further sightings.	suitable nesting habitat; possible breeder	CR
K.068	BR7	09/07/2022	11:04	Kestrel	1	improved grassland, flying, female left field heading north.	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.069	BR2	19/07/2022	16:46	Kestrel	1	active quarries and mines, conifer plantation and cutover bog, hunting, male kestrel hunting.	suitable nesting habitat; possible breeder	CR
K.070	BR7	13/04/2023	09:32	Kestrel	1	improved grassland, calling, distress call	suitable nesting habitat; possible breeder	CR
K.072	BR7	13/04/2023	11:13	Kestrel	1	improved grassland and cutover bog, hunting, male hunting	suitable nesting habitat; possible breeder	CR
K.073	BR7	13/04/2023	11:36	Kestrel	1	cutover bog and improved grassland, flying, male	suitable nesting habitat; possible breeder	CR
K.074	BR7	13/04/2023	12:09	Kestrel	1	improved grassland, hunting	suitable nesting habitat; possible breeder	CR
K.075	BR1	14/04/2023	13:47	Kestrel	1	cutover bog, hunting	suitable nesting habitat; possible breeder	CR
K.076	BR1	14/04/2023	15:10	Kestrel	1	cutover bog and conifer plantation, hunting	suitable nesting habitat; possible breeder	CR
K.077	BR3	17/04/2023	13:30	Kestrel	1	cutover bog and improved grassland, flying	suitable nesting habitat; possible breeder	CR
K.078	BR3	17/04/2023	14:40	Kestrel	1	improved grassland, hunting, male	suitable nesting habitat; possible breeder	CR
K.079	BR3	17/04/2023	14:45	Kestrel	1	improved grassland and cutover bog, hunting/calling, male hunting, also heard calling before landing in tree.	suitable nesting habitat; possible breeder	CR
K.080	BR3	17/04/2023	14:46	Kestrel	2	improved grassland, flying, male and possibly a female kestrel left tree. one bird headed north whilst the male landed on a tree.	pair; probable breeding	CR
K.081	BR3	17/04/2023	14:47	Kestrel	1	improved grassland, flying, male left tree heading south.	suitable nesting habitat; possible breeder	CR
K.082	BR3	17/04/2023	14:53	Kestrel	1	improved grassland, hunting, male hunting before landing on telegraph pole.	suitable nesting habitat; possible breeder	CR
K.083	BR3	17/04/2023	14:55	Kestrel	1	improved grassland, flying, male left area heading south west.	suitable nesting habitat; possible breeder	CR
K.084	BR6	28/04/2023	10:02	Kestrel	1	cutover bog and highly modified/non-native woodland, hunting, male	suitable nesting habitat; possible breeder	CR
K.085	BR6	28/04/2023	10:23	Kestrel	1	cutover bog, hunting, male	suitable nesting habitat; possible breeder	CR
K.086	BR6	28/04/2023	10:45	Kestrel	1	cutover bog and improved grassland, hunting, male	suitable nesting habitat; possible breeder	CR
K.087	BR2	03/05/2023	10:16	Kestrel	1	improved grassland, hunting	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.088	BR2	03/05/2023	10:53	Kestrel	1	improved grassland, hunting	suitable nesting habitat; possible breeder	CR
K.092	BR7	16/05/2023	18:40	Kestrel	1	cutover bog, flying	suitable nesting habitat; possible breeder	CR
K.093	BR6	18/05/2023	14:29	Kestrel	1	improved grassland, hunting	suitable nesting habitat; possible breeder	CR
K.095	BR2	24/05/2023	14:46	Kestrel	1	cutover bog and built land, hunting, male hunting near quarry.	suitable nesting habitat; possible breeder	CR
K.096	BR2	24/05/2023	16:58	Kestrel	1	cutover bog and disturbed ground, hunting	suitable nesting habitat; possible breeder	CR
K.097	BR2	24/05/2023	17:00	Kestrel	1	cutover bog and disturbed ground, hunting, most likely same bird observed at 16:58 pm.	suitable nesting habitat; possible breeder	CR
K.107	BR2	22/06/2023	13:46	Kestrel	3	active quarries and mines, flying/calling, two adult males and one adult female.	pair; probable breeding	CR
K.110	BR1	23/06/2023	16:09	Kestrel	1	cutover bog and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	CR
K.111	BR3	05/07/2023	13:49	Kestrel	1	cutover bog, hunting, male	suitable nesting habitat; possible breeder	CR
K.112	BR4	05/07/2023	18:47	Kestrel	1	improved grassland, hunting	suitable nesting habitat; possible breeder	CR
K.113	BR12	04/04/2024	10:32	Kestrel	1	scrub/transitional woodland, hunting	suitable nesting habitat; possible breeder	SD
K.114	BR3	09/04/2024	12:18	Kestrel	1	cutover bog and immature woodland, hunting	suitable nesting habitat; possible breeder	CG
K.115	BR3	09/04/2024	12:24	Kestrel	1	scrub and cutover bog, soaring, joined original bird briefly, birds circled high together before dropping in different directions	pair; probable breeding	CG
K.116	BR2	09/04/2024	14:03	Kestrel	1	exposed sand, gravel or till, cutover bog and scrub, hunting	suitable nesting habitat; possible breeder	CG
K.117	BR2	09/04/2024	14:14	Kestrel	1	cutover bog, hunting	suitable nesting habitat; possible breeder	CG
K.118	BR2	09/04/2024	14:31	Kestrel	1	cutover bog and scrub, hunting	suitable nesting habitat; possible breeder	CG
K.119	BR4	16/04/2024	08:55	Kestrel	1	scrub, flying	suitable nesting habitat; possible breeder	NL
K.120	BR4	16/04/2024	09:41	Kestrel	1	scrub, cutover bog and mixed broadleaved woodland, flying	suitable nesting habitat; possible breeder	NL

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
K.121	BR11	16/04/2024	12:36	Kestrel	1	scrub/transitional woodland and bogs, hunting	suitable nesting habitat; possible breeder	NL
K.122	BR9	23/05/2024	12:54	Kestrel	1	scrub, hunting	suitable nesting habitat; possible breeder	NL
K.123	BR3	28/05/2024	12:13	Kestrel	1	scrub and cutover bog, travelling, female	suitable nesting habitat; possible breeder	NL
K.124	BR5	11/06/2024	09:51	Kestrel	1	scrub and cutover bog, flying, preening, hunting, female	suitable nesting habitat; possible breeder	NL
K.129	BR11	09/07/2024	10:16	Kestrel	1	highly modified/non-native woodland, hunting, male	suitable nesting habitat; possible breeder	NL

Table 13-4 Kestrel Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.001	21/01/2021	10:30	-	Kestrel	1	cutover bog and scrub; hunting and hovering, male ()	JH
K.002	21/01/2021	13:36	-	Kestrel	1	cutover bog; travelling, male landing on pb4 ()	JH
K.003	13/10/2021	12:59	-	Kestrel	1	cutover bog and conifer plantation; flying, female kestrel observed heading north east. (wintering)	CR
K.004	13/10/2021	15:14	-	Kestrel	1	cutover bog; flying, adult male observed heading north west. (wintering)	CR
K.005	13/10/2021	15:57	-	Kestrel	1	cutover bog and bog woodland; hunting, male kestrel observed hunting. (wintering)	CR
K.006	14/10/2021	14:29	-	Kestrel	1	cutover bog and bog woodland; hunting, male bird observed hunting. (wintering)	CR
K.007	22/02/2022	09:35	-	Kestrel	1	improved grassland and cutover bog; flying, male bird last seen heading east. (wintering)	CR
K.008	22/02/2022	13:00	-	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, female bird last seen heading north west. (wintering)	CR
K.009	23/02/2022	11:55	-	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, male bird observed heading south. (wintering)	CR
K.010	21/03/2022	13:04	-	Kestrel	1	highly modified/non-native woodland, cutover bog and improved grassland; flying, male heading east. (wintering)	CR
K.011	21/03/2022	13:38	-	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting, last seen heading north west. (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.012	22/03/2022	16:14	-	Kestrel	1	scrub and cutover bog; hunting, heading south east. (wintering)	CR
K.013	22/03/2022	16:52	-	Kestrel	1	cutover bog and scrub; flying, last seen heading north west. (wintering)	CR
K.014	24/03/2022	15:31	-	Kestrel	1	cutover bog and scrub; hunting, last seen heading north. (wintering)	CR
K.015	11/10/2022	15:00	-	Kestrel	1	highly modified/non-native woodland and cutover bog; hunting (wintering)	CR
K.016	11/10/2022	15:05	-	Kestrel	1	highly modified/non-native woodland and cutover bog; hunting, likely same bird observed at 15:00 pm. (wintering)	CR
K.017	16/01/2023	13:06	-	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting, female heading north. (wintering)	CR
K.018	16/01/2023	15:27	-	Kestrel	1	cutover bog; hunting, difficult to determine if male or female. (wintering)	CR
K.019	18/01/2023	13:17	-	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting, female heading south west. (wintering)	CR
K.020	18/01/2023	13:38	-	Kestrel	1	cutover bog; flying, observed mobbing peregrine falcon. (wintering)	CR
K.022	16/03/2023	09:17	-	Kestrel	1	improved grassland and cutover bog; flying, landed on tree before heading north west. (wintering)	CR
K.023	16/03/2023	09:17	-	Kestrel	2	improved grassland and cutover bog; flying/calling, circled over tree before heading north east. (wintering)	CR
K.024	16/03/2023	11:02	-	Kestrel	1	cutover bog; hunting, hunting in close proximity with another kestrel. last seen heading north west. (wintering)	CR
K.025	16/03/2023	11:03	-	Kestrel	1	cutover bog; hunting, hunting in close proximity with another kestrel. last seen heading north. (wintering)	CR
K.026	22/03/2023	12:03	-	Kestrel	1	active quarries and mines and improved grassland; hunting (wintering)	CR
K.027	22/03/2023	12:25	-	Kestrel	1	active quarries and mines and improved grassland; hunting, male headed north west with female bird. (wintering)	CR
K.028	22/03/2023	12:29	-	Kestrel	1	active quarries and mines; hunting, female bird, headed north west with male. (wintering)	CR
K.029	22/03/2023	12:35	-	Kestrel	1	active quarries and mines; hunting, male bird. last seen heading north. (wintering)	CR
K.030	22/03/2023	12:43	-	Kestrel	1	active quarries and mines and improved grassland; hunting, female, last seen heading east. (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
K.031	22/03/2023	12:54	-	Kestrel	1	active quarries and mines and improved grassland; hunting, female, last seen heading north east. (wintering)	CR
K.032	22/03/2023	13:03	-	Kestrel	1	active quarries and mines and improved grassland; hunting, male accompanied by female bird. observed catching rodent in quarry before both birds left the area heading north west. (wintering)	CR
K.033	22/03/2023	13:03	-	Kestrel	1	active quarries and mines and improved grassland; hunting, female accompanied by male bird. both birds observed leaving quarry heading north west. (wintering)	CR
K.034	30/03/2023	15:23	-	Kestrel	1	cutover bog, disturbed ground and improved grassland; hunting, male (suitable nesting habitat; possible breeder)	CR
K.035	11/01/2024	12:14	-	Kestrel	1	improved grassland and cutover bog; flying (wintering)	CR
K.036	11/01/2024	13:53	-	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting (wintering)	CR
K.037	12/03/2024	14:10	-	Kestrel	1	improved grassland; hunting, male (wintering)	CR
K.038	27/03/2024	13:43	-	Kestrel	1	disturbed ground; hunting (wintering)	CR
K.039	23/10/2024	13:46	T1	Kestrel	1	cutover bog; hunting (wintering)	CC
K.040	05/11/2024	11:32	T1	Kestrel	1	cutover bog; hunting (wintering)	CC
K.041	06/11/2024	12:09	T2	Kestrel	1	improved agricultural grassland; hunting (wintering)	CC
K.042	06/11/2024	12:46	T2	Kestrel	1	cutover bog; hunting (wintering)	CC
K.043	04/03/2025	12:26	T2	Kestrel	1	bogs and scrub/transitional woodland; hunting (wintering)	ZE

Table 13-5 Kestrel Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.001	Waterbird Distribution and Abundance Survey; Boora	09/02/2021	14:12	Kestrel	1	improved agricultural grassland and conifer plantation; travelling, male perched on fence post and flying on	JH

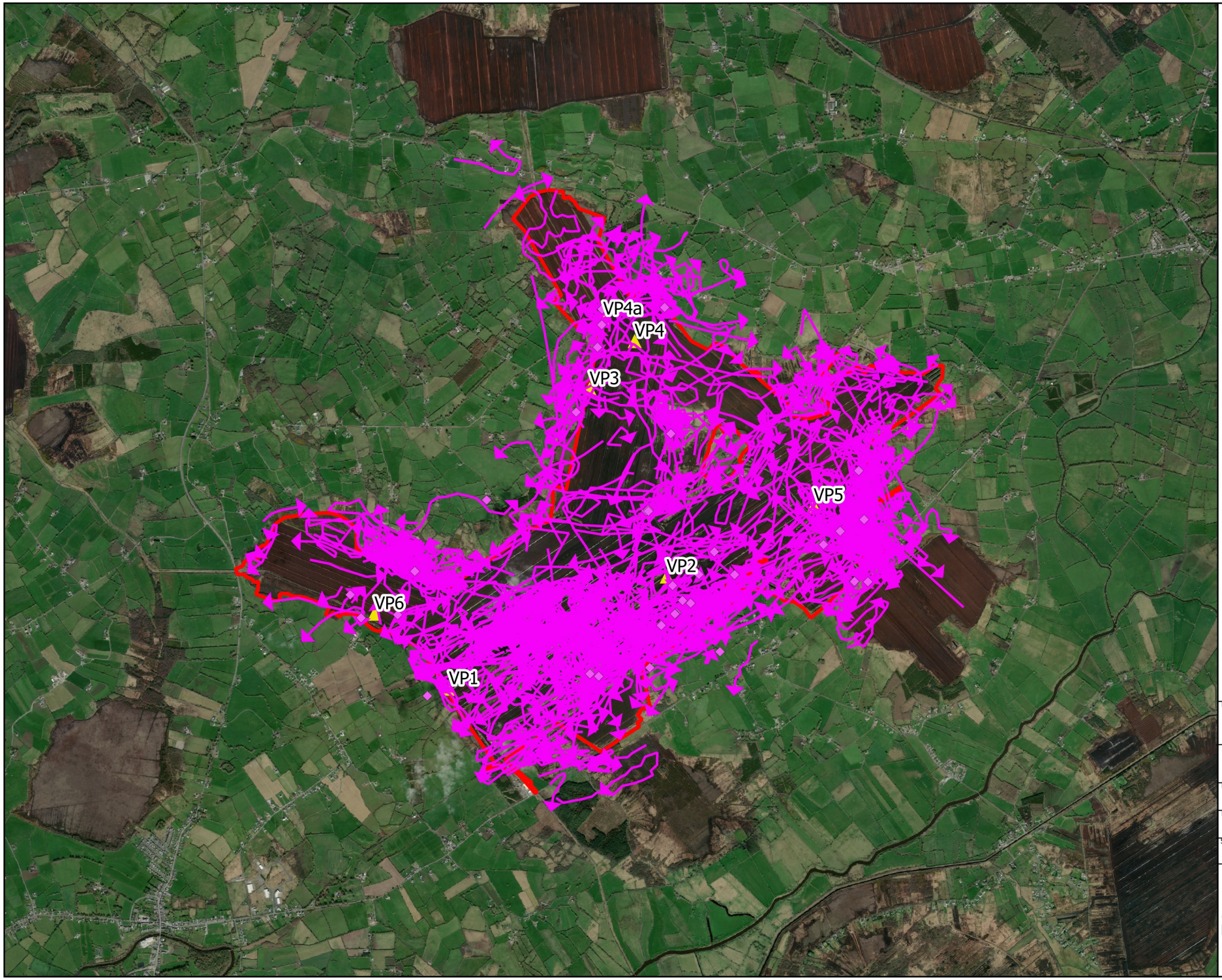
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.004	Breeding Woodcock Survey; Lamanghan	18/05/2021	20:20	Kestrel	1	cutover bog and semi-natural woodland; hunting, female	JG
K.005	Breeding Woodcock Survey; Lemanaghan bog	01/06/2021	20:37	Kestrel	1	conifer plantation and cutover bog; hovering	JG
K.006	Breeding Woodcock Survey; Lemanghan bog east	01/06/2021	21:17	Kestrel	1	cutover bog and semi-natural woodland; flying/hunting	JG
K.007	Breeding Woodcock Survey; Lemanaghan bog south	14/06/2021	21:18	Kestrel	1	recently-felled woodland and cutover bog; hunting	JG
K.008	Breeding Woodcock Survey; Lemanaghan bog middle	23/06/2021	22:07	Kestrel	1	cutover bog and oak-birch-holly woodland; hunting	JG
K.009	Vantage Point Survey; Lemanaghan bog - vp3	08/07/2021	20:36	Kestrel	1	cutover bog; flying, male, flew very low to ground <5m	JG
K.010	Breeding Raptor Survey; BnM yard	23/07/2021	21:15	Kestrel	1	buildings and artificial surfaces, cutover bog and conifer plantation; perched on machine before flushing and hunting nearby rough grassland, during barn owl survey,female	TR
K.011	Waterbird Distribution and Abundance Survey; near finnamore lakes	03/08/2021	16:53	Kestrel	1	improved agricultural grassland; hunting, female, saw hunting as i was driving	JG
K.012	Waterbird Distribution and Abundance Survey; Cloghan lake	17/08/2021	12:13	Kestrel	2	improved grassland and mixed broadleaved woodland; hunting, two females hunting	JG
K.013	Waterbird Distribution and Abundance Survey; Turraun wetland	17/08/2021	14:33	Kestrel	1	cutover bog and improved grassland; hunting, female	JG
K.014	Waterbird Distribution and Abundance Survey; Finnamore lakes	17/08/2021	15:26	Kestrel	1	mixed broadleaved woodland, eroding/upland rivers and improved grassland; hunting	JG
K.015	Vantage Point Survey; Ver near VP2	20/08/2021	16:00	Kestrel	1	cutover bog, scrub and bog woodland; hovering, seen during break	SOB
K.016	Vantage Point Survey; Lemanaghan Bord Na Mona shed, carpark	20/08/2021	16:20	Kestrel	1	scrub, cutover bog and treelines; hovering, seen during break	SOB
K.018	Waterbird Distribution and Abundance Survey; Cloghan Lake	14/09/2021	15:05	Kestrel	1	scrub and bog woodland; hunting hovering, male kestrel hunting over scrubland near cloghan lake.	SOB
K.019	Waterbird Distribution and Abundance Survey; R437	14/09/2021	15:50	Kestrel	1	cutover bog, conifer plantation and dystrophic lakes; hunting, hovering, male kestrel hovering behind flooded cutover bog.	SOB
K.020	Waterbird Distribution and Abundance Survey; Old railway crossing near Cloghan Lake	12/10/2021	12:11	Kestrel	1	cutover bog; flying, male bird heading north west.	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.021	Hen Harrier Roost Survey; Curraghalassa Bog	14/10/2021	18:48	Kestrel	1	bogs and bog woodland; flying, observed flying into woodland.	CR
K.022	Vantage Point Survey; Near VP3	18/10/2021	11:20	Kestrel	2	cutover bog; flying, pair observed flying near observers car during an online meeting. last seen headjng south.	CR
K.023	Hen Harrier Roost Survey; HHVP1	28/10/2021	18:32	Kestrel	1	improved grassland and conifer plantation; flying, heading west.	CR
K.024	Waterbird Distribution and Abundance Survey; Noggusduff	24/11/2021	10:45	Kestrel	1	cutover bog, highly modified/non-native woodland and lakes and ponds; flying, female bird observed.	CR
K.025	Hen Harrier Roost Survey; HHVP2	02/12/2021	16:25	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, heading south west.	CR
K.026	Waterbird Distribution and Abundance Survey; Tumduff	09/12/2021	14:34	Kestrel	1	improved grassland and conifer plantation; hunting, last seen heading west.	CR
K.027	Hen Harrier Roost Survey; HHVP5	13/12/2021	16:07	Kestrel	1	improved grassland and highly modified/non-native woodland; flying, observed descending into woodland.	CR
K.028	Hen Harrier Roost Survey; HHVP5	13/12/2021	16:22	Kestrel	1	improved grassland; flying, heading west.	CR
K.029	Waterbird Distribution and Abundance Survey; Finnamore Lakes	22/12/2021	15:44	Kestrel	1	highly modified/non-native woodland; hunting, observed hunting before descending into woodland.	CR
K.030	Hen Harrier Roost Survey; HHVP2	17/01/2022	16:34	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, last seen heading south.	CR
K.031	Hen Harrier Roost Survey; HHVP4	18/01/2022	15:14	Kestrel	1	improved grassland and cutover bog; flying, heading south.	CR
K.032	Hen Harrier Roost Survey; HHVP4	18/01/2022	15:45	Kestrel	1	improved grassland; flying, heading west.	CR
K.033	Hen Harrier Roost Survey; HHVP2	08/02/2022	16:25	Kestrel	1	bogs and highly modified/non-native woodland; flying, male kestrel heading south west.	CR
K.034	Hen Harrier Roost Survey; HHVP2	08/02/2022	17:23	Kestrel	1	bogs and highly modified/non-native woodland; flying, heading west.	CR
K.036	Waterbird Distribution and Abundance Survey; Tumduff	26/04/2022	12:43	Kestrel	1	improved grassland; hunting	CR
K.037	Breeding Woodcock Survey; T1	18/05/2022	20:08	Kestrel	1	cutover bog; hunting, heading south.	CR
K.038	Breeding Woodcock Survey; T1 (near VP5)	18/05/2022	20:31	Kestrel	1	cutover bog and scrub; hunting, female kestrel hunting, last seen heading south.	CR
K.039	Breeding Woodcock Survey; T1 (near VP5)	18/05/2022	20:41	Kestrel	1	cutover bog and scrub; hunting, female kestrel heading west.	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.040	Breeding Woodcock Survey; T1 (near VP5)	18/05/2022	21:12	Kestrel	1	scrub and cutover bog; hunting, male hunting last seen heading south west.	CR
K.041	Breeding Woodcock Survey; T1 (near VP5)	18/05/2022	21:35	Kestrel	1	cutover bog; flying, heading north.	CR
K.042	Breeding Woodcock Survey; T2 Lemanaghan south	19/05/2022	21:17	Kestrel	1	conifer plantation and improved grassland; hunting, heading west.	CR
K.043	Breeding Woodcock Survey; T3	20/06/2022	21:37	Kestrel	1	cutover bog and scrub; flying, heading south west.	CR
K.044	Hen Harrier Roost Survey; HHVP1	08/11/2022	16:47	Kestrel	1	improved grassland; flying, female heading north.	CR
K.045	Hen Harrier Roost Survey; HHVP2	25/11/2022	16:18	Kestrel	1	cutover bog; flying, female heading south.	CR
K.046	Vantage Point Survey; VP5	02/12/2022	14:19	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, heading north.	CR
K.047	Waterbird Distribution and Abundance Survey; Drinagh	07/12/2022	13:06	Kestrel	1	improved grassland and scrub; flying, mobbing buzzard.	CR
K.048	Vantage Point Survey; VP2	22/12/2022	11:11	Kestrel	1	cutover bog; flying, heading south-west.	CR
K.049	Hen Harrier Roost Survey; HHVP4	18/01/2023	16:35	Kestrel	1	improved grassland and conifer plantation; flying, heading north	CR
K.050	Hen Harrier Roost Survey; HHVP2	10/02/2023	17:27	Kestrel	1	cutover bog and highly modified/non-native woodland; flying, heading north-west.	CR
K.051	Waterbird Distribution and Abundance Survey; Drinagh	07/03/2023	13:26	Kestrel	1	lakes and ponds; hunting, male	CR
K.052	Waterbird Distribution and Abundance Survey; Tumduff	12/04/2023	16:33	Kestrel	1	improved grassland and highly modified/non-native woodland; hunting	CR
K.054	Breeding Raptor Survey; BR2	03/05/2023	13:15	Kestrel	1	active quarries and mines and cutover bog; hunting, male.	CR
K.055	Breeding Woodcock Survey; WK1 (near VP1)	04/05/2023	20:57	Kestrel	1	cutover bog; hunting	CR
K.056	Breeding Woodcock Survey; North of site	13/06/2023	21:07	Kestrel	1	cutover bog and improved grassland; flying, male	CR
K.057	Breeding Woodcock Survey; North of site near VP5	21/06/2023	21:12	Kestrel	1	cutover bog; hunting	CR
K.058	Breeding Woodcock Survey; North of site near VP5	21/06/2023	21:17	Kestrel	1	cutover bog; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.059	Breeding Woodcock Survey; Near VP2	21/06/2023	21:17	Kestrel	1	cutover bog; hunting	CR
K.060	Vantage Point Survey; BR3	06/07/2023	13:23	Kestrel	1	improved grassland; flying	CR
K.061	Vantage Point Survey; VP5	06/07/2023	16:50	Kestrel	2	cutover bog; hunting, adult male and female.	CR
K.062	Waterbird Distribution and Abundance Survey; Derrybrat	19/09/2023	16:15	Kestrel	1	lakes and ponds; flying	CR
K.063	Waterbird Distribution and Abundance Survey; drinagh	06/10/2023	14:25	Kestrel	1	improved grassland; flying	CR
K.064	Hen Harrier Roost Survey; hhvp2	09/10/2023	17:49	Kestrel	1	cutover bog and highly modified/non-native woodland; flying	CR
K.065	Waterbird Distribution and Abundance Survey; Noggusduff	09/11/2023	10:30	Kestrel	1	lakes and ponds; flying	CR
K.066	Hen Harrier Roost Survey; hhvp1	09/11/2023	16:50	Kestrel	1	improved grassland; hunting	CR
K.067	Vantage Point Survey; vp5	15/11/2023	10:38	Kestrel	1	cutover bog; hunting, observed during lunch break.	CR
K.068	Waterbird Distribution and Abundance Survey; Tumduff	21/12/2023	15:06	Kestrel	1	improved grassland; flying, male	CR
K.069	Hen Harrier Roost Survey; HHVP2	08/01/2024	15:51	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting	CR
K.070	Hen Harrier Roost Survey; HHVP2	26/01/2024	16:36	Kestrel	1	cutover bog; hunting	CR
K.071	Hen Harrier Roost Survey; HHVP2	26/01/2024	17:00	Kestrel	1	cutover bog; hunting, female hunting with male.	CR
K.072	Hen Harrier Roost Survey; HHVP2	26/01/2024	17:00	Kestrel	1	cutover bog and highly modified/non-native woodland; hunting, male hunting with female.	CR
K.073	Hen Harrier Roost Survey; HHVP1	15/02/2024	16:45	Kestrel	1	improved grassland and cutover bog; mobbed	CR
K.074	Vantage Point Survey; vp5	27/02/2024	14:14	Kestrel	1	bogs and scrub/transitional woodland; flying, hovering	JD
K.075	Vantage Point Survey; vp5	27/02/2024	15:26	Kestrel	1	bogs; flying	JD
K.076	Hen Harrier Roost Survey; HHVP5	19/03/2024	18:59	Kestrel	2	scrub/transitional woodland and cutover bog; flying, calling, male and female	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
K.077	Vantage Point Survey; VP1	27/03/2024	09:59	Kestrel	1	improved grassland; flying, male	CR
K.078	Waterbird Distribution and Abundance Survey; Clara Bog Walk	11/04/2024	10:08	Kestrel	1	bogs; calling, hovering, flying	NL
K.079	Breeding Raptor Survey; Grand Canal Way	16/04/2024	11:43	Kestrel	1	canals; hovering, flying, on way to br11	NL
K.081	Vantage Point Survey; VP5	18/06/2024	08:25	Kestrel	1	hedgerows; hunting, male	NL
K.082	Vantage Point Survey; VP2	19/06/2024	08:05	Kestrel	1	bogs; flying	PDC
K.083	Breeding Woodcock Survey; BWK1	30/06/2024	21:30	Kestrel	1	cutover bog; hunting	SD
K.084	Vantage Point Survey; VP2	11/09/2024	10:27	Kestrel	1	highly modified/non-native woodland; travelling	PDC
K.085	Vantage Point Survey; VP02	23/10/2024	14:37	Kestrel	2	bogs; hunting	FOD
K.086	Waterbird Distribution and Abundance Survey; lough boora	17/12/2024	14:02	Kestrel	1	improved agricultural grassland; hunting, female	FOD
K.087	Waterbird Distribution and Abundance Survey; Lough Boora	18/12/2024	13:20	Kestrel	2	improved agricultural grassland; hunting/squabbling, male and female hunting, a lot of calling between the two	FOD
K.088	Waterbird Distribution and Abundance Survey; Tumduff	07/01/2025	14:15	Kestrel	1	improved agricultural grassland; flying	ZE
K.089	Hen Harrier Roost Survey; HHVP1	09/01/2025	16:04	Kestrel	1	improved agricultural grassland, linear woodland/scrub and bogs; flying, perched, male	ZE
K.090	Waterbird Distribution and Abundance Survey; Clara Bog	19/03/2025	13:25	Kestrel	1	bogs; flying, hovering	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title

Kestrel
Vantage Point Survey Observations

Project Title

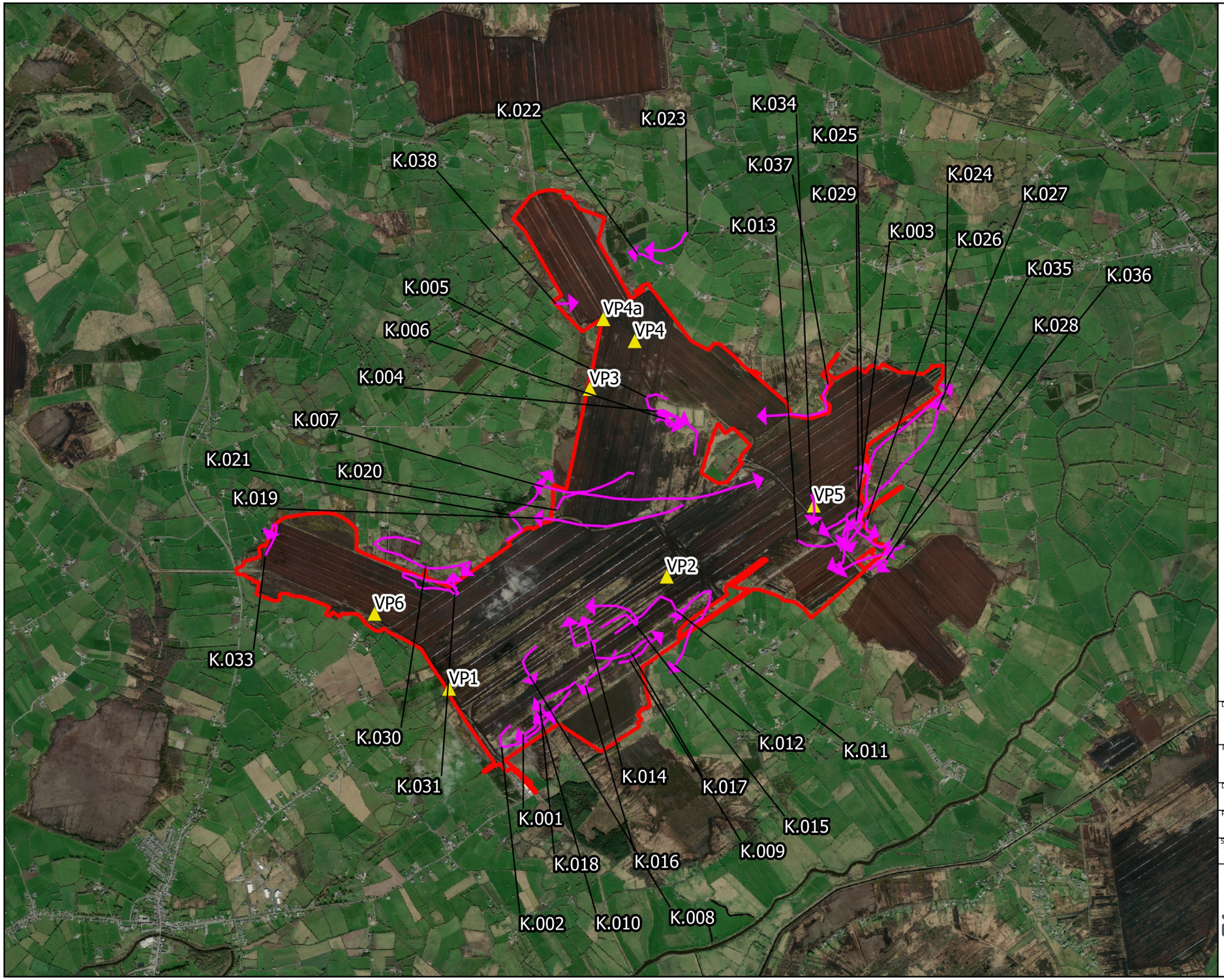
Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1
Scale	Date
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Observations of Kestrel from Vantage Point Surveys have been further divided across the following Figures in order to improve readability:

- Figure 13-1a – Kestrel Vantage Point Survey Data – October – November 2020
- Figure 13-1b – Kestrel Vantage Point Survey Data – December 2020 – January 2021
- Figure 13-1c – Kestrel Vantage Point Survey Data – February – March 2021
- Figure 13-1d – Kestrel Vantage Point Survey Data – April – May 2021
- Figure 13-1e – Kestrel Vantage Point Survey Data – June 2021
- Figure 13-1f – Kestrel Vantage Point Survey Data – July 2021
- Figure 13-1g – Kestrel Vantage Point Survey Data – August 2021
- Figure 13-1h – Kestrel Vantage Point Survey Data – September 2021
- Figure 13-1i – Kestrel Vantage Point Survey Data – October 2021
- Figure 13-1j – Kestrel Vantage Point Survey Data – November 2021
- Figure 13-1k – Kestrel Vantage Point Survey Data – December 2021 – January 2022
- Figure 13-1l – Kestrel Vantage Point Survey Data – February – March 2022
- Figure 13-1m – Kestrel Vantage Point Survey Data – April – June 2022
- Figure 13-1n – Kestrel Vantage Point Survey Data – July 2022
- Figure 13-1o – Kestrel Vantage Point Survey Data – August – September 2022
- Figure 13-1p – Kestrel Vantage Point Survey Data – October 2022 – March 2023
- Figure 13-1q – Kestrel Vantage Point Survey Data – June – July 2023
- Figure 13-1r – Kestrel Vantage Point Survey Data – August – September 2023
- Figure 13-1s – Kestrel Vantage Point Survey Data – October 2023 – March 2024
- Figure 13-1t – Kestrel Vantage Point Survey Data – April 2024
- Figure 13-1u – Kestrel Vantage Point Survey Data – June 2024
- Figure 13-1v – Kestrel Vantage Point Survey Data – July 2024
- Figure 13-1w – Kestrel Vantage Point Survey Data – August 2024
- Figure 13-1x – Kestrel Vantage Point Survey Data – September 2024
- Figure 13-1y – Kestrel Vantage Point Survey Data – October – December 2024
- Figure 13-1z – Kestrel Vantage Point Survey Data – January – March 2025



Map Legend

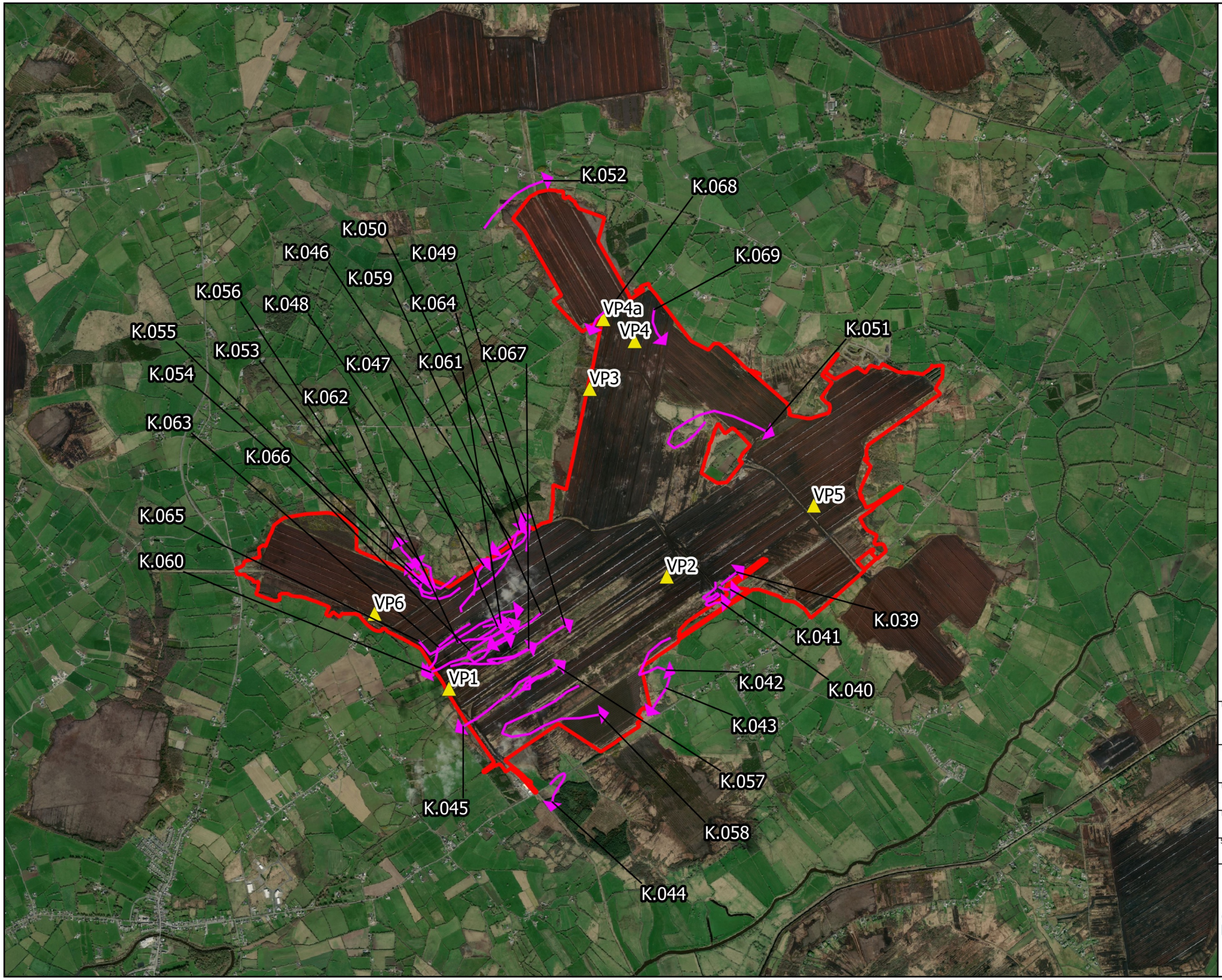
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- Vantage Point Locations
- Flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 13.1a
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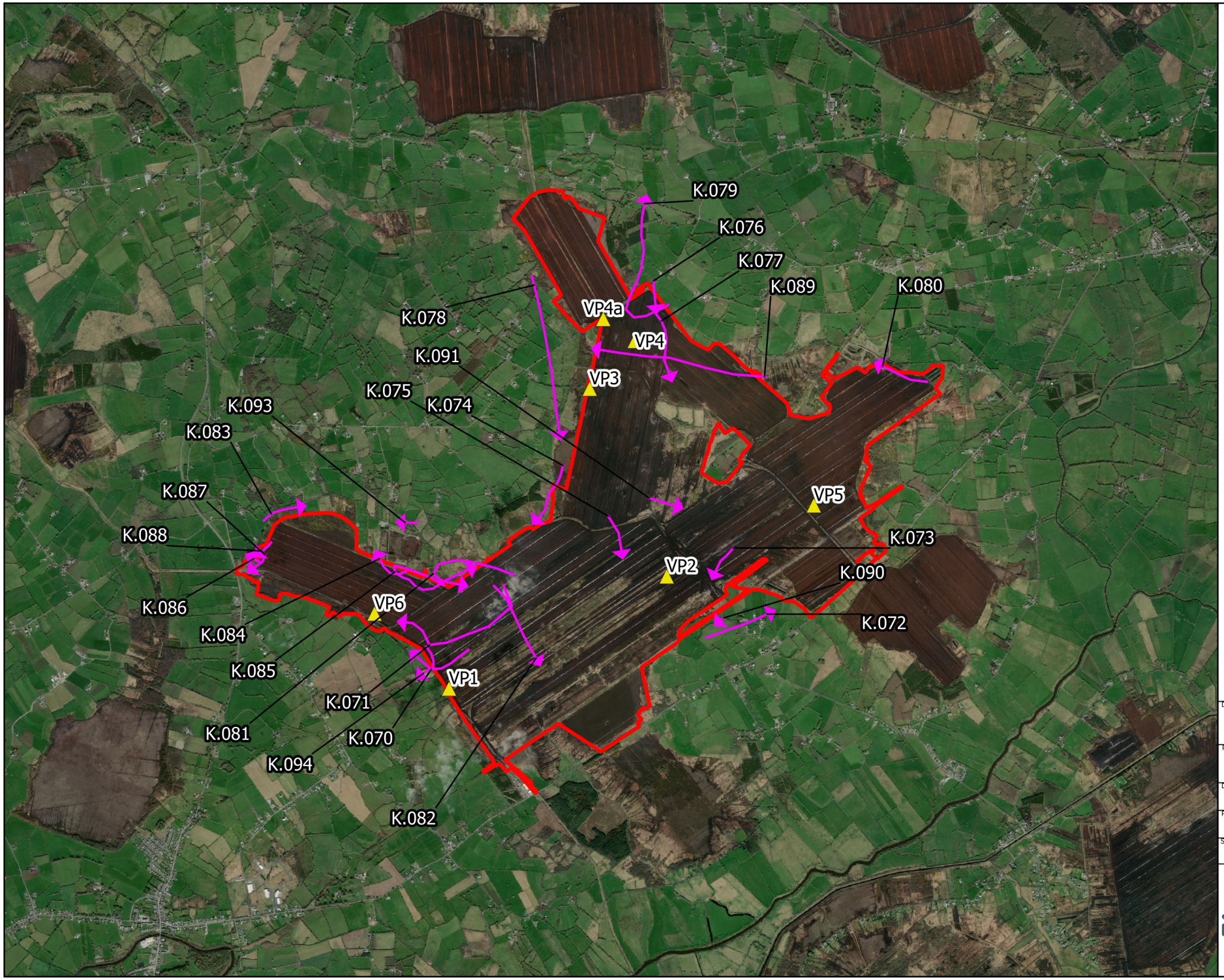
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- Vantage Point Locations
- Flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.1b
Scale: 1:45,000	Date: 17.07.2025

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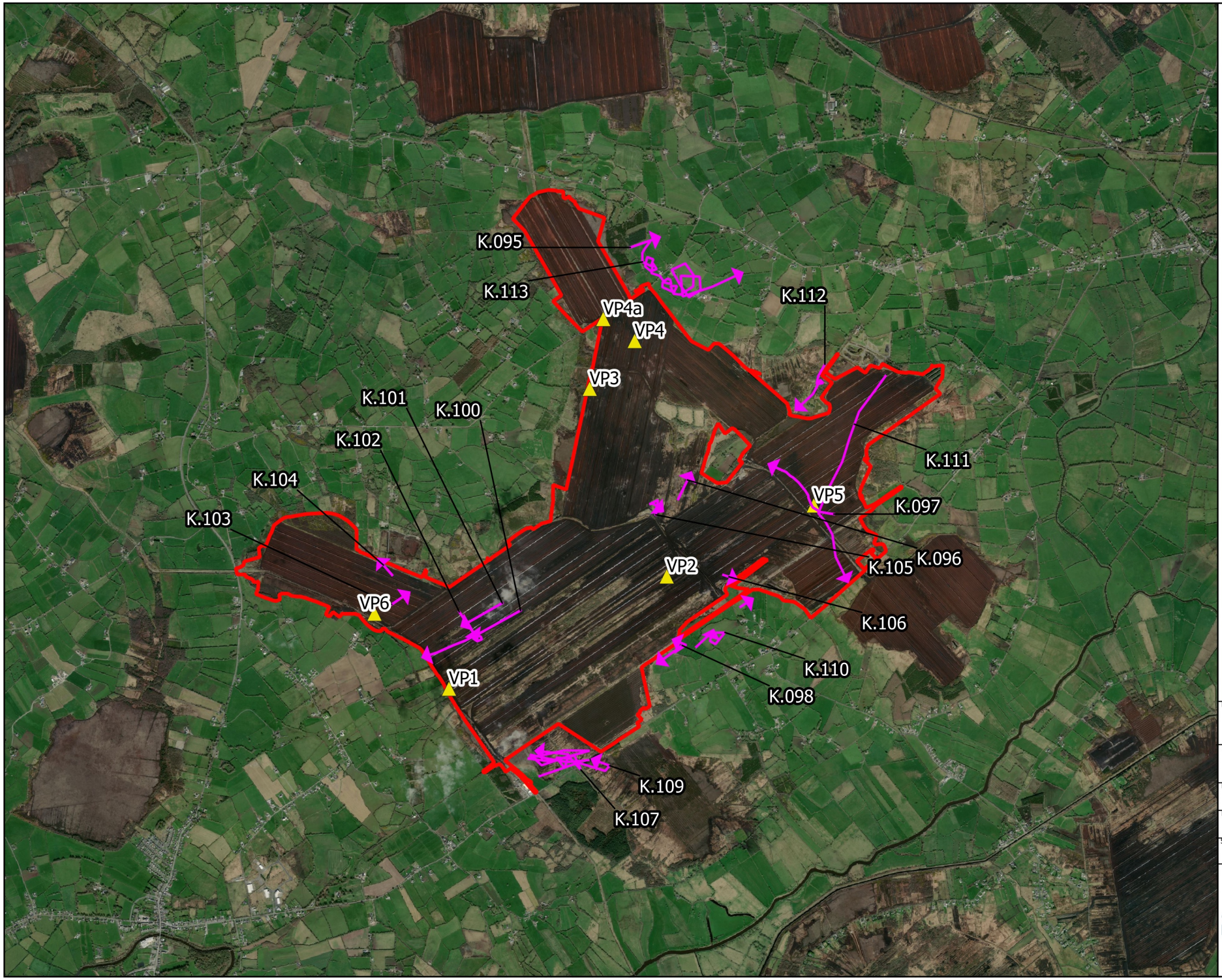
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- Vantage Point Locations
- Flight Observation

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Drawing Title	Kestrel Observations Feb-Mar 2021 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 13.1c
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

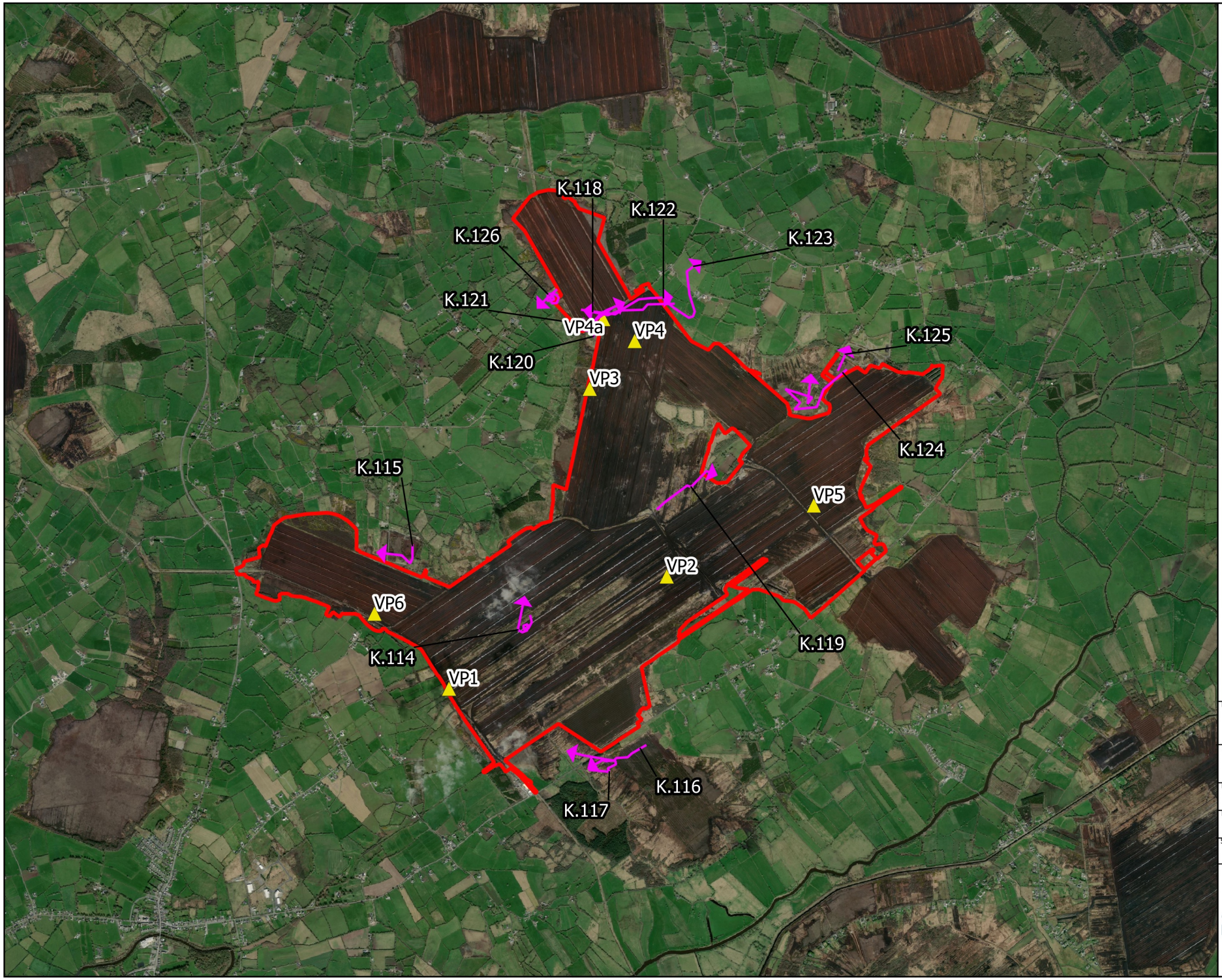
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Drawing Title	Kestrel Observations Apr-May 2021 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 13.1d
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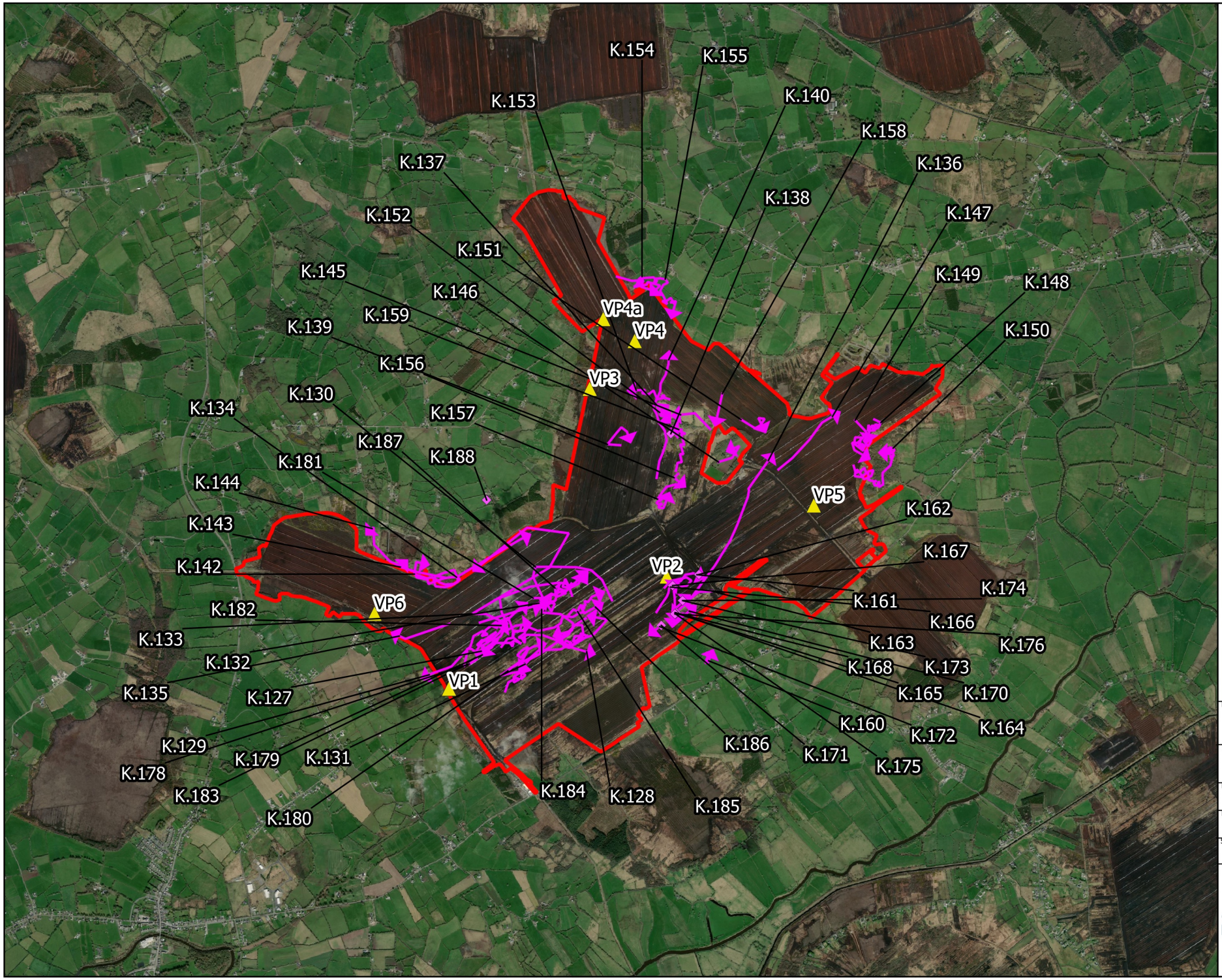
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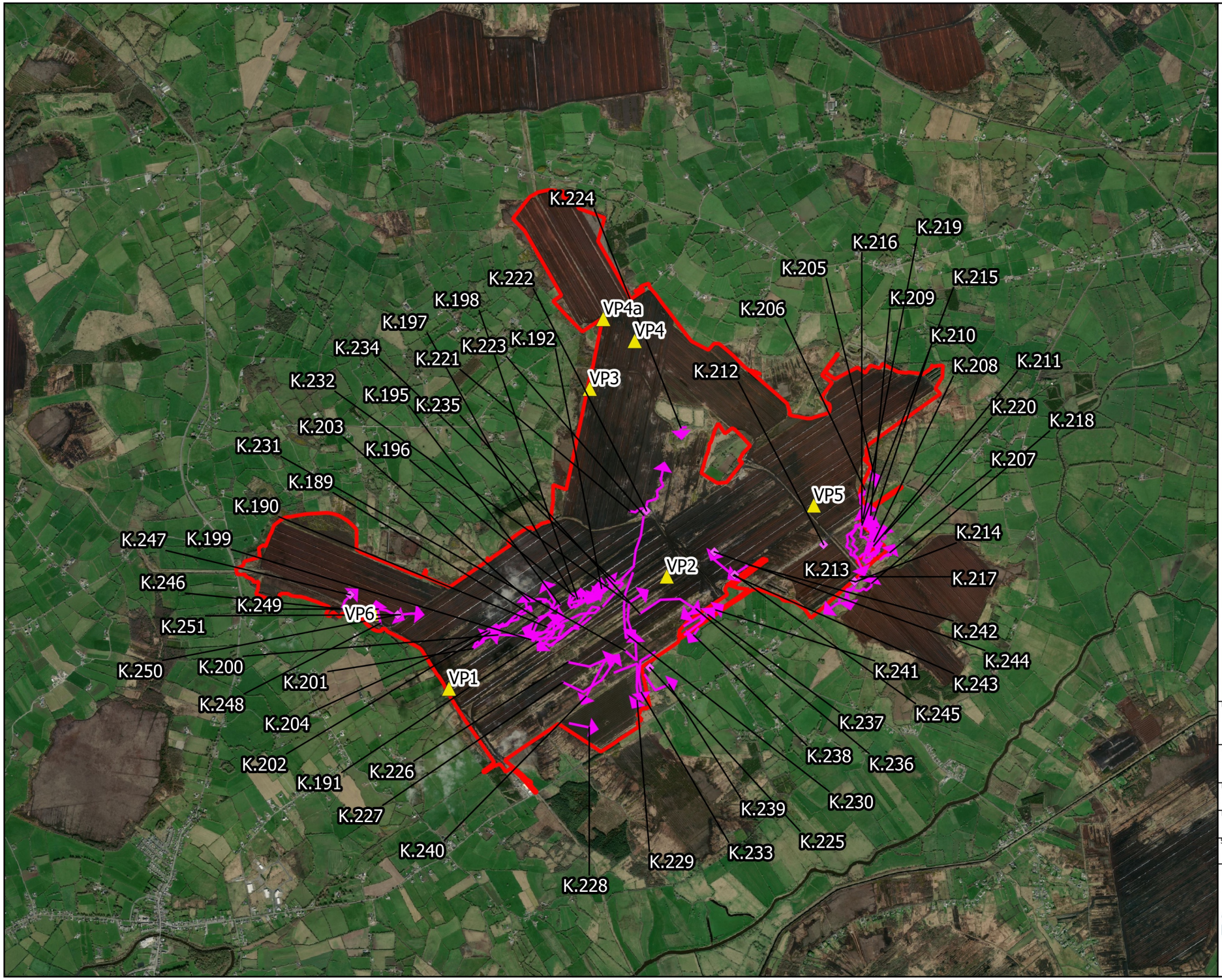
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Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Flight Observation
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Kestrel Observations July 2021
Vantage Point Surveys
Project Title
Extraction in Lemanaghan Bog, Co. Offaly
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Fig. 13.1f
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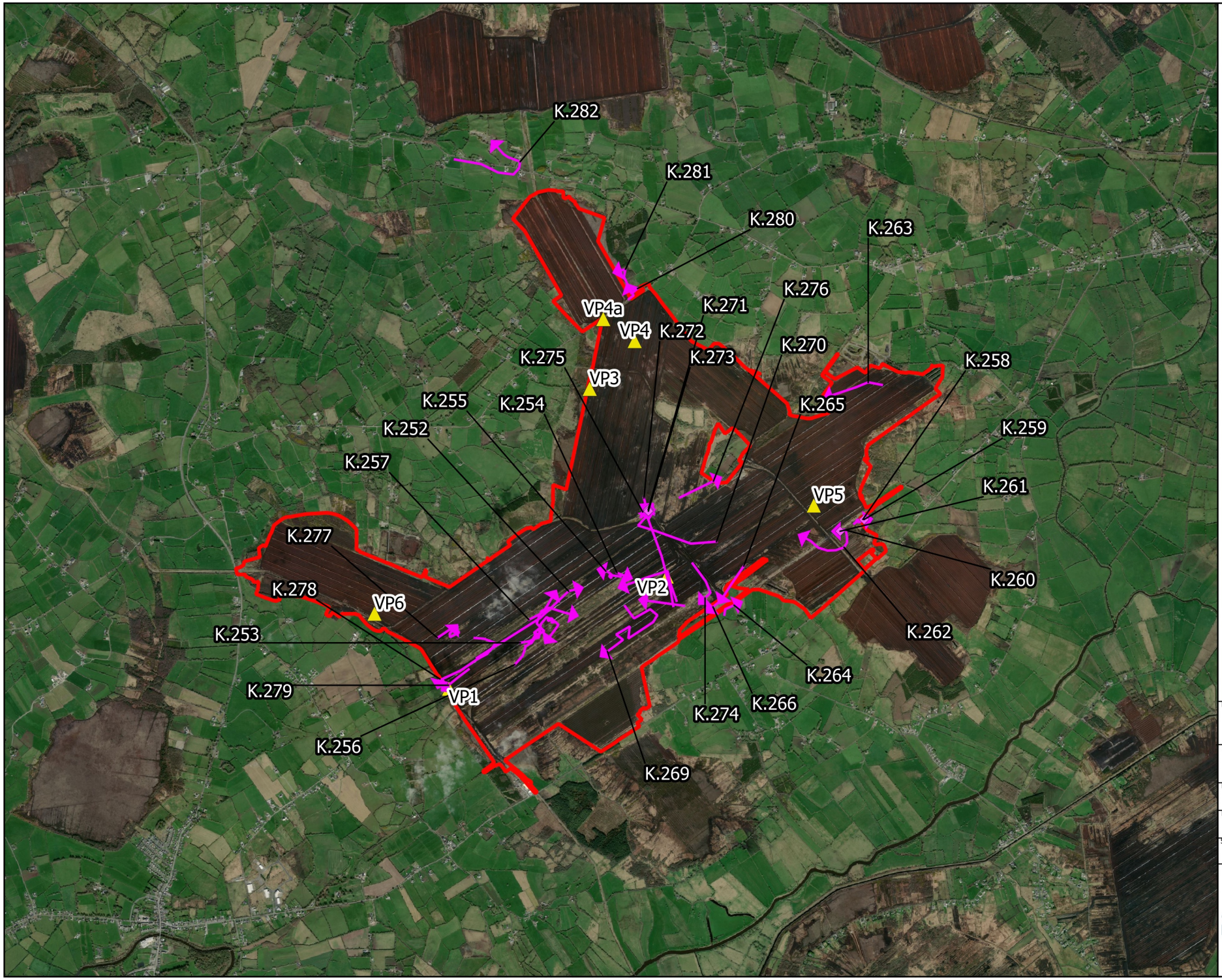
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- Vantage Point Locations
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- Non-flight Observation

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Drawing Title	Kestrel Observations August 2021 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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- Vantage Point Locations
- Flight Observation
- Non-flight Observation

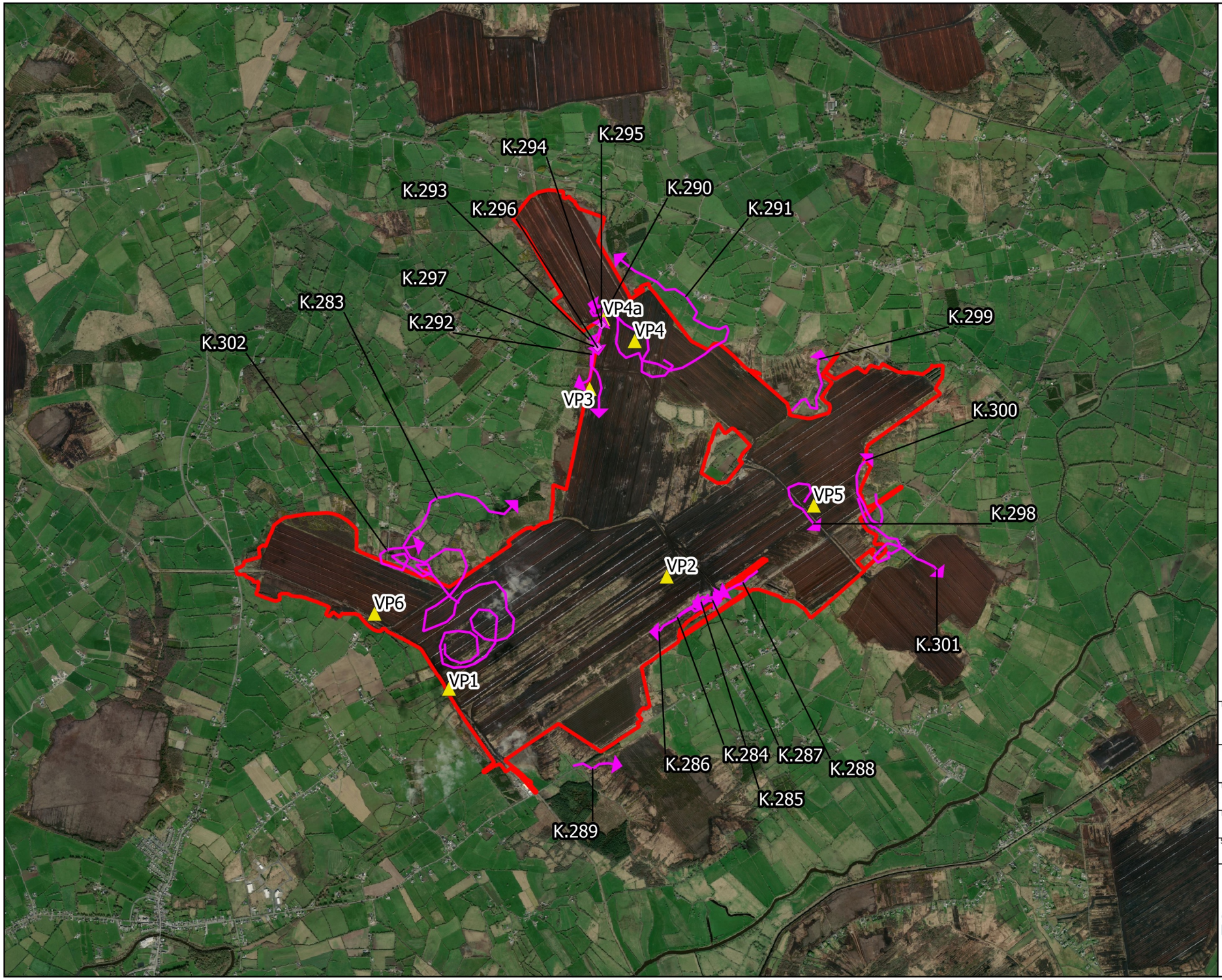
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Project Title: Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 13.1h
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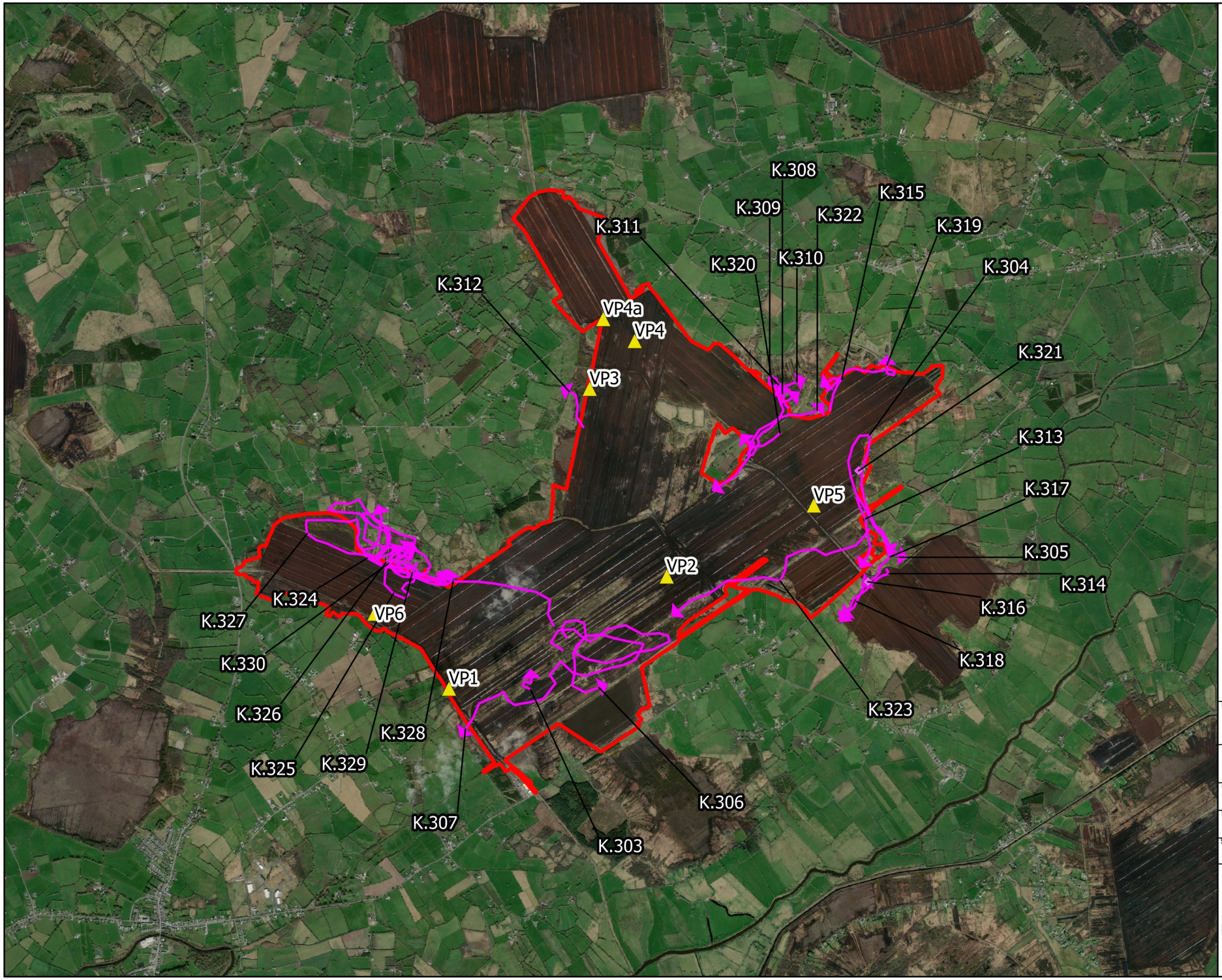
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Drawing Title
Kestrel Observations October 2021
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 13.1i
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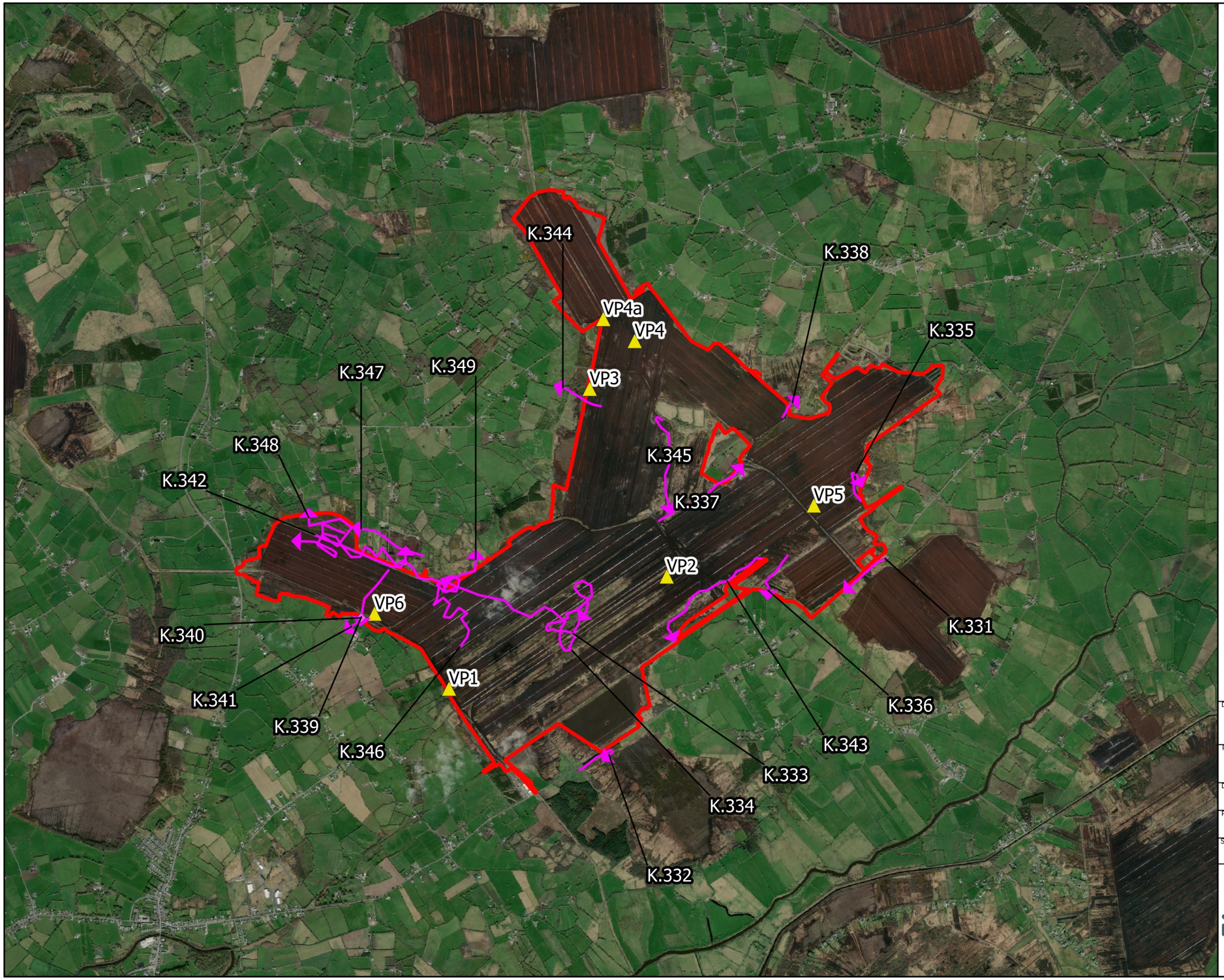
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Drawing Title
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Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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Scale	Date
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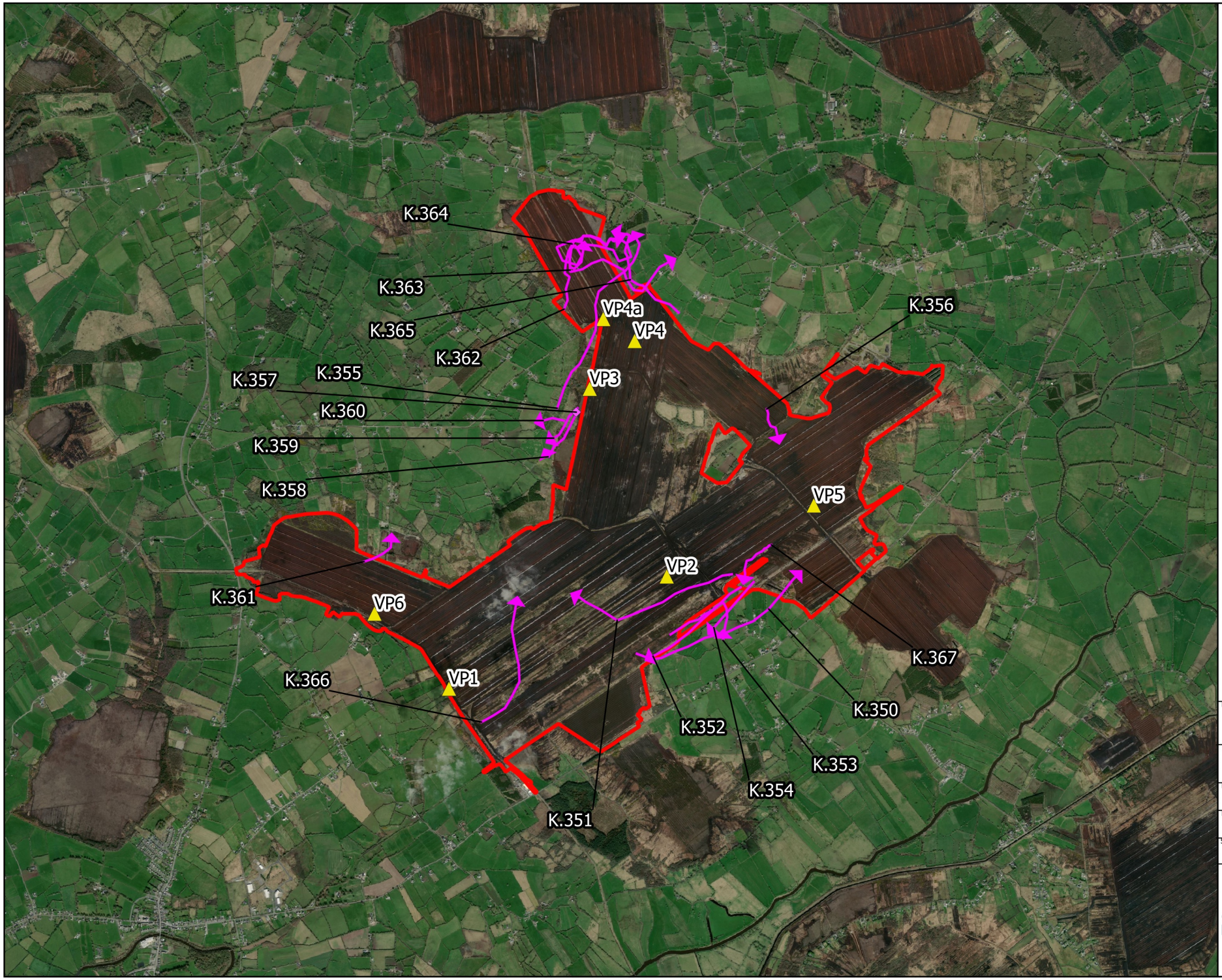
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- Vantage Point Locations
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.1k
Scale: 1:45,000	Date: 17.07.2025

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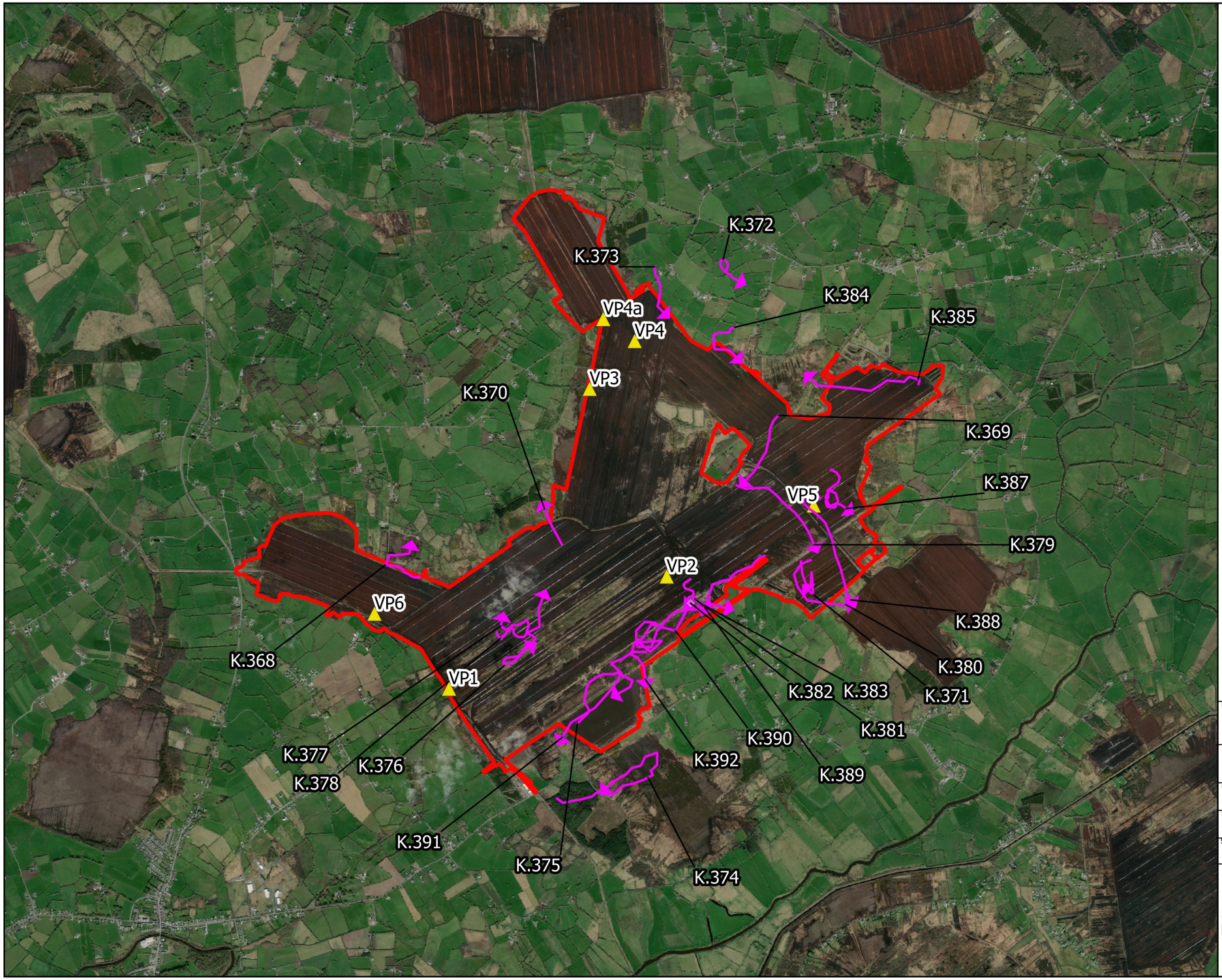
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Drawing Title
Kestrel Observations Feb-Mar 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 13.1l
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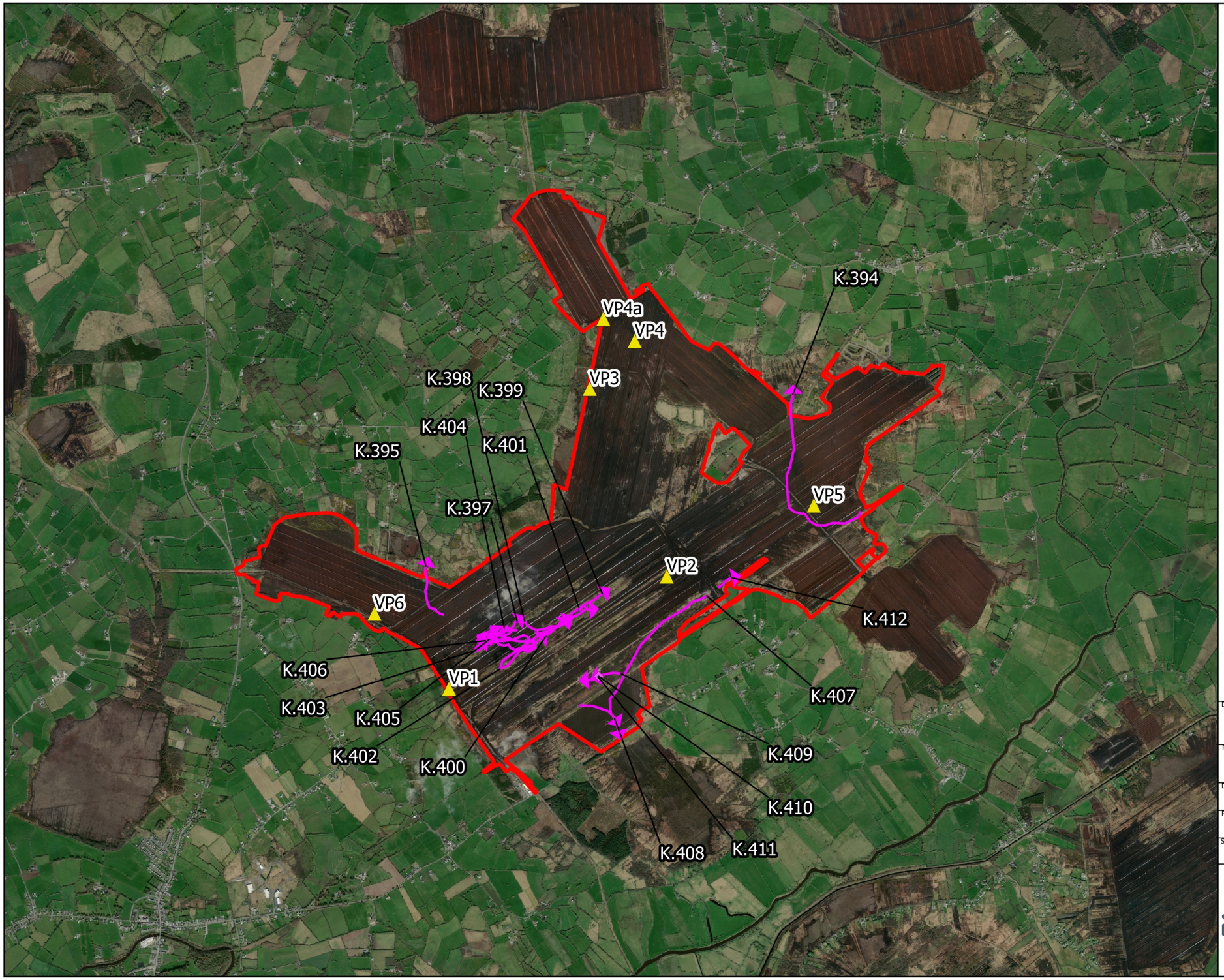
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Drawing Title
Kestrel Observations Apr-Jun 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 13.1m
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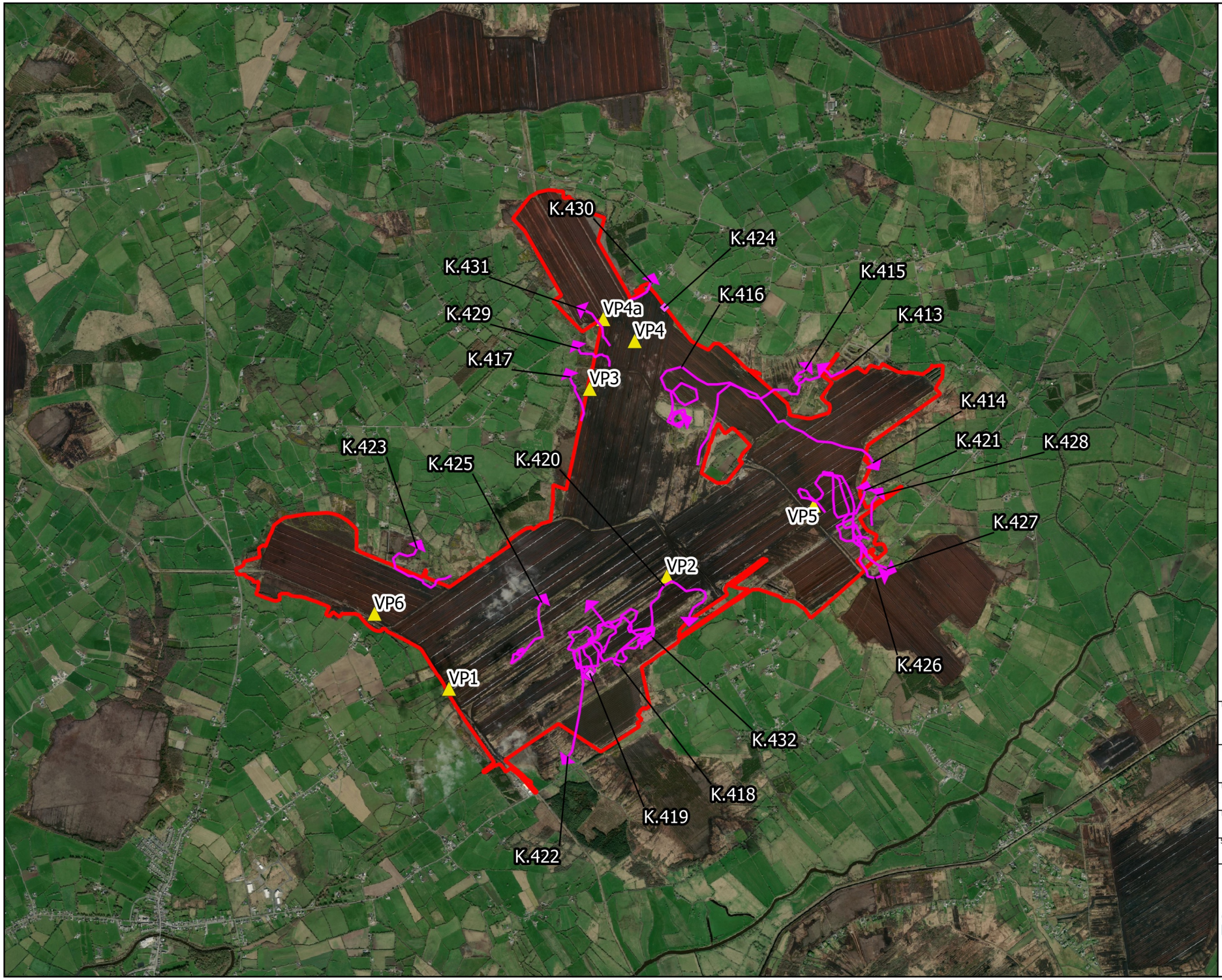
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Drawing Title
Kestrel Observations July 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 13.1n
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- Flight Observation
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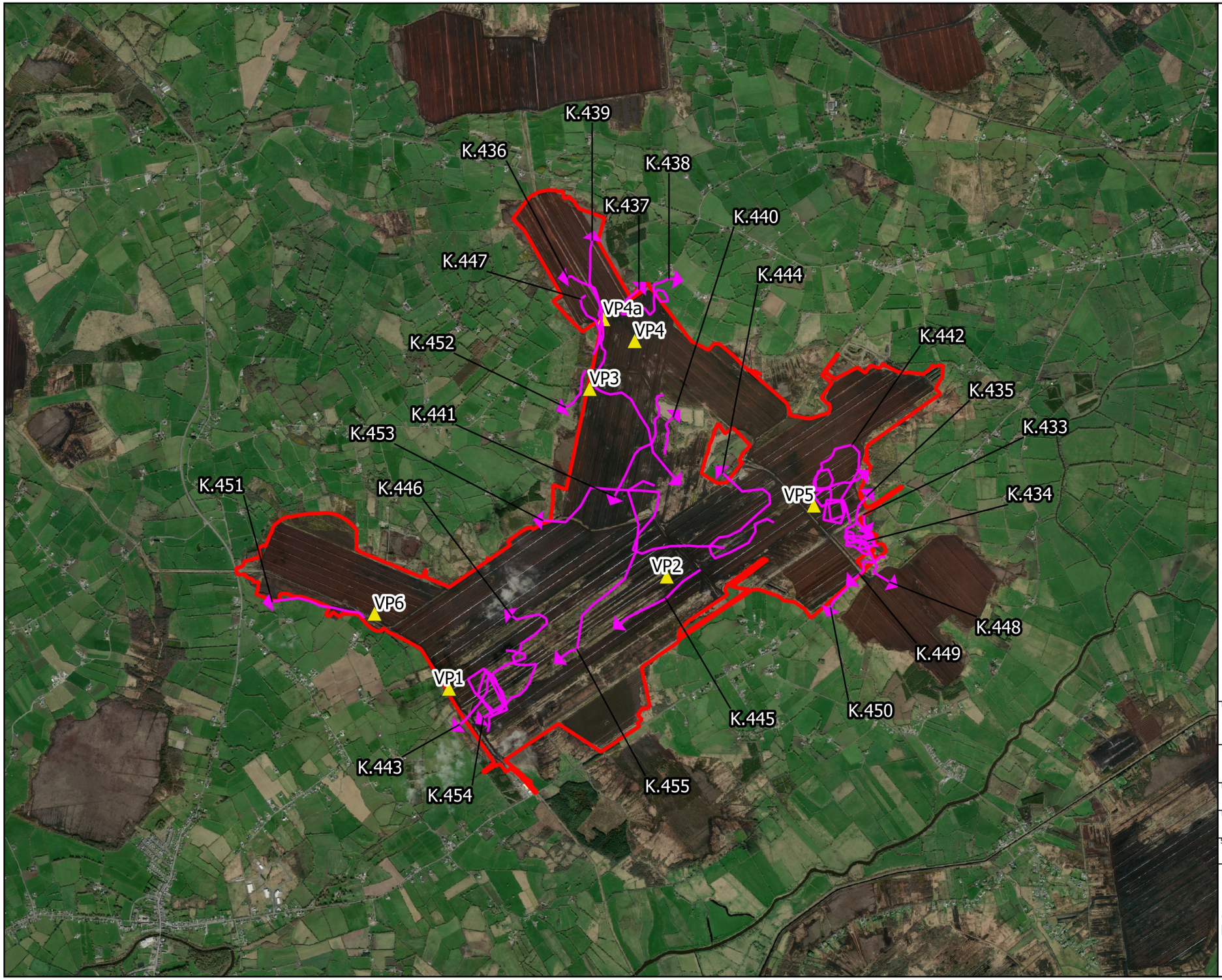
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Drawing Title
Kestrel Observations Aug-Sep 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 13.1o
Scale	Date
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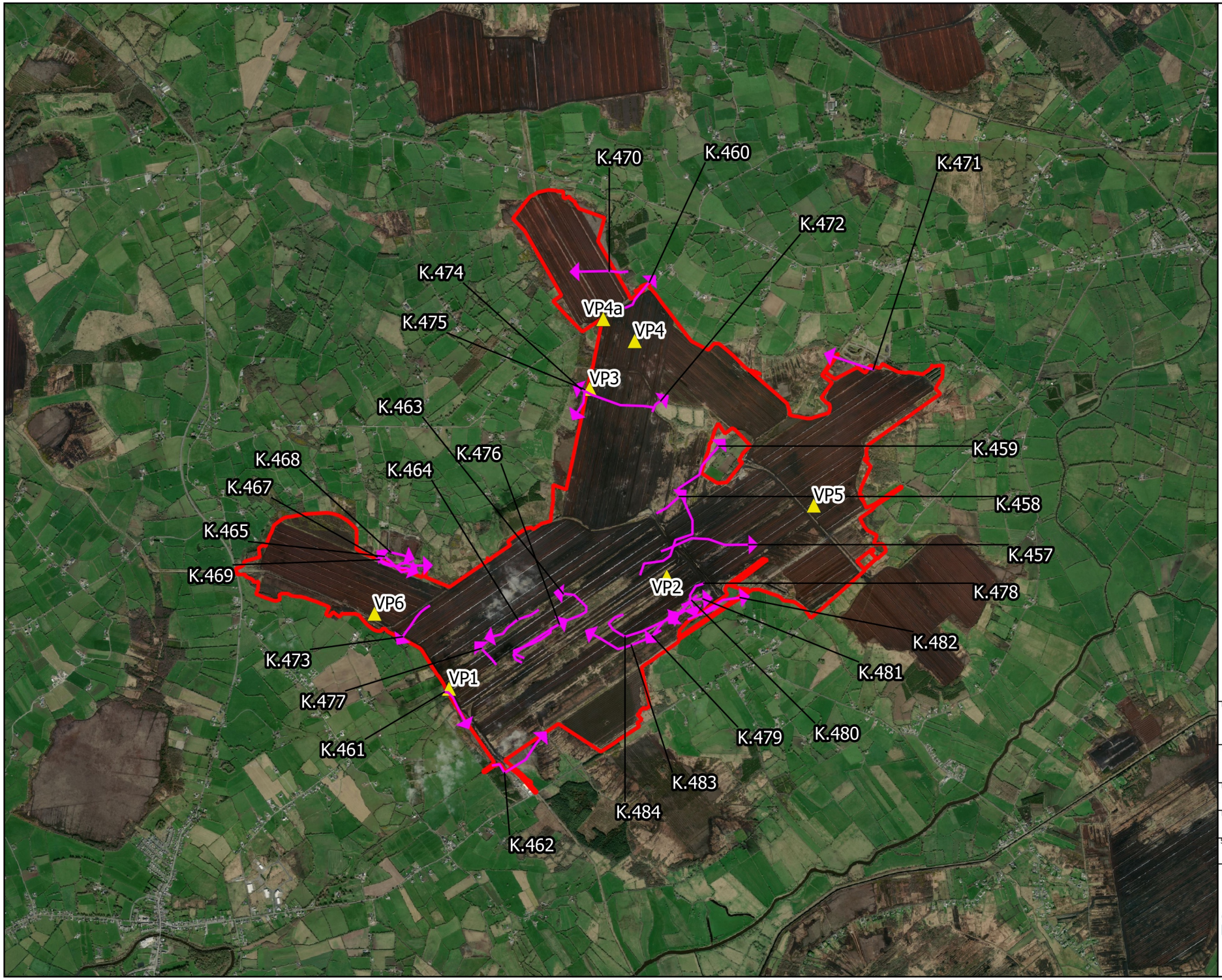
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Drawing Title
Kestrel Observations Winter 2022/23 Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 13.1p
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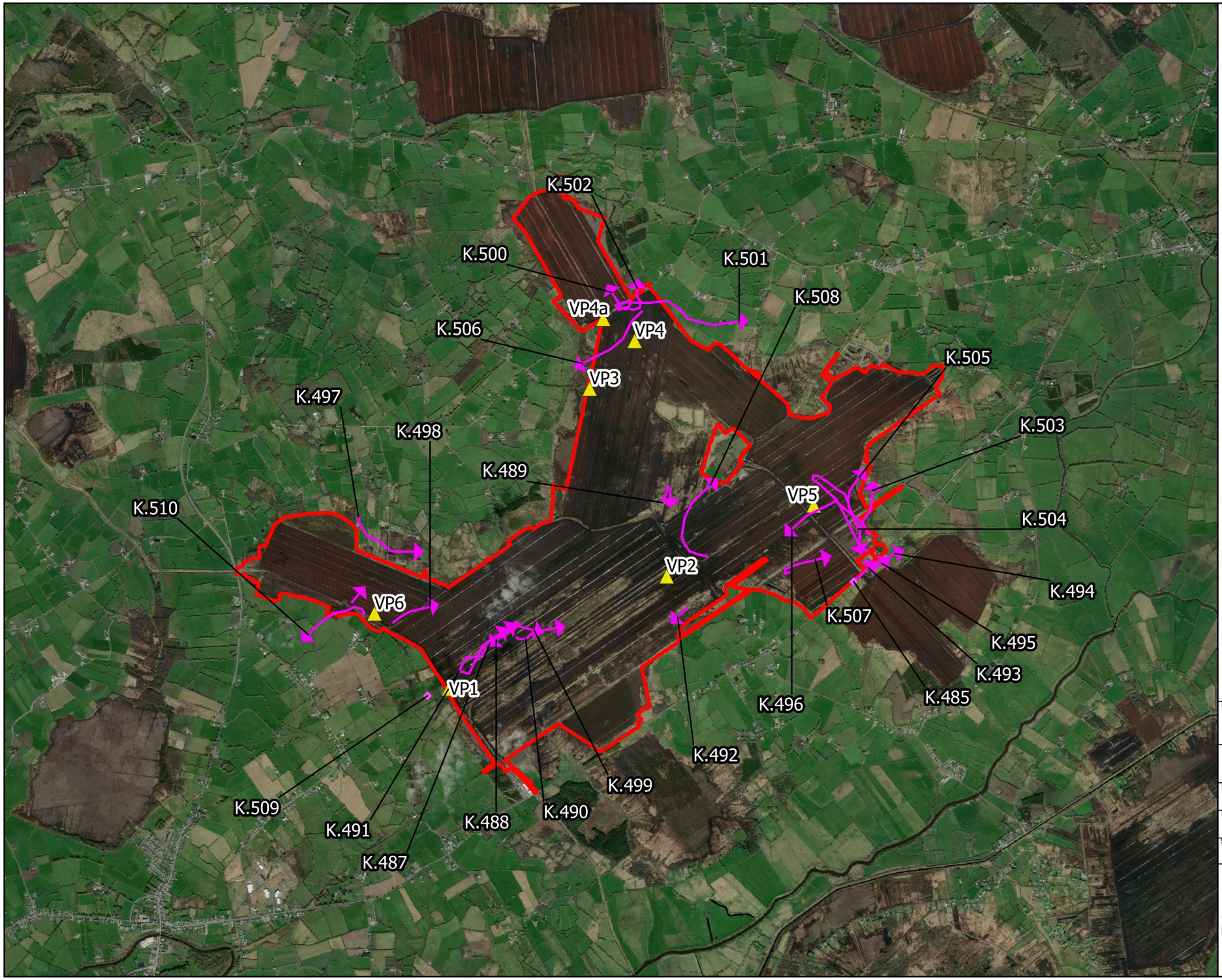
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- Vantage Point Locations
- Flight Observation

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Drawing Title	Kestrel Observations Jun-Jul 2023 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.1q
Scale: 1:45,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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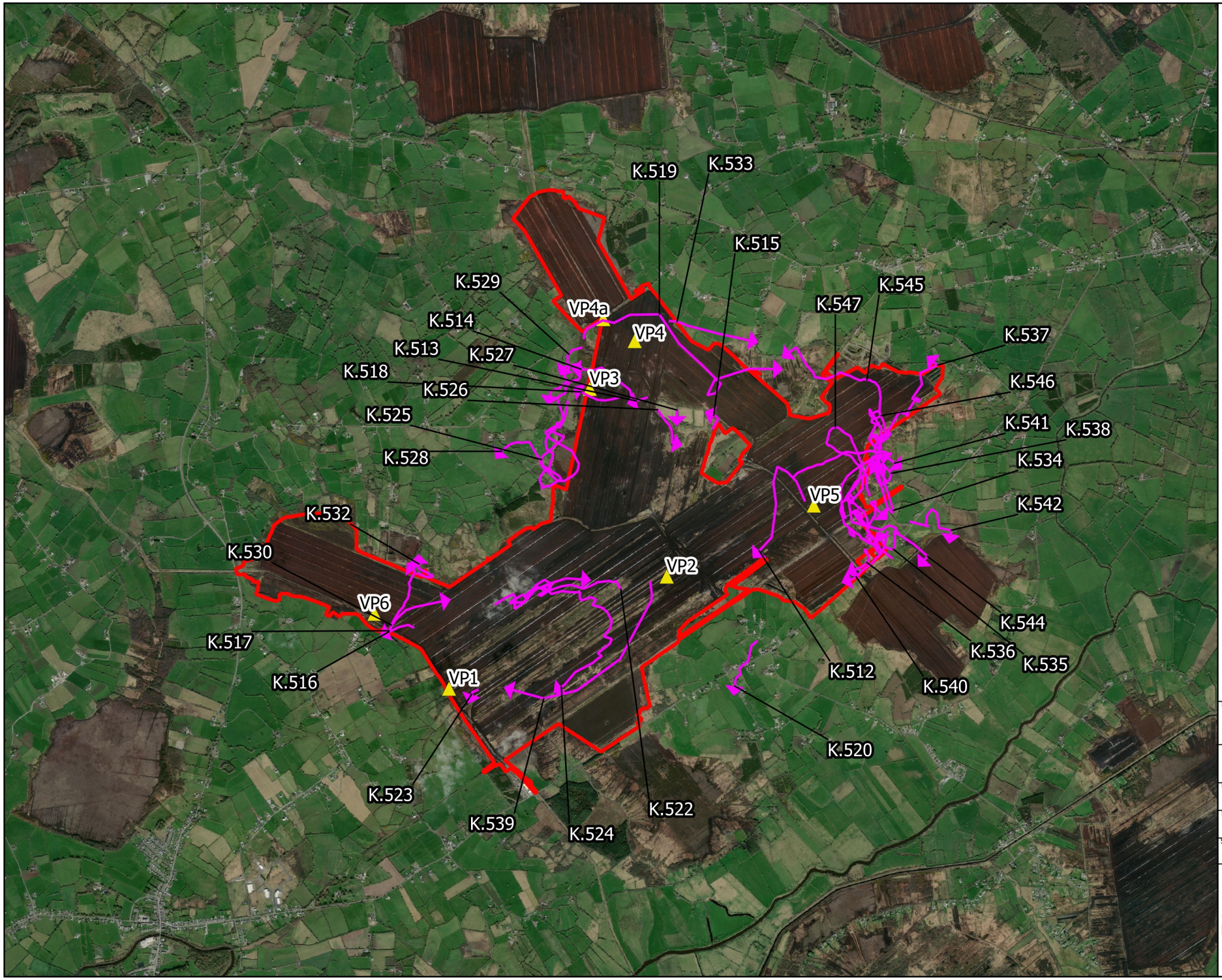
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Drawing Title
Kestrel Observations Aug-Sep 2023
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1r
Scale	Date
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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title: Kestrel Observations Winter 2023/24 Vantage Point Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1s
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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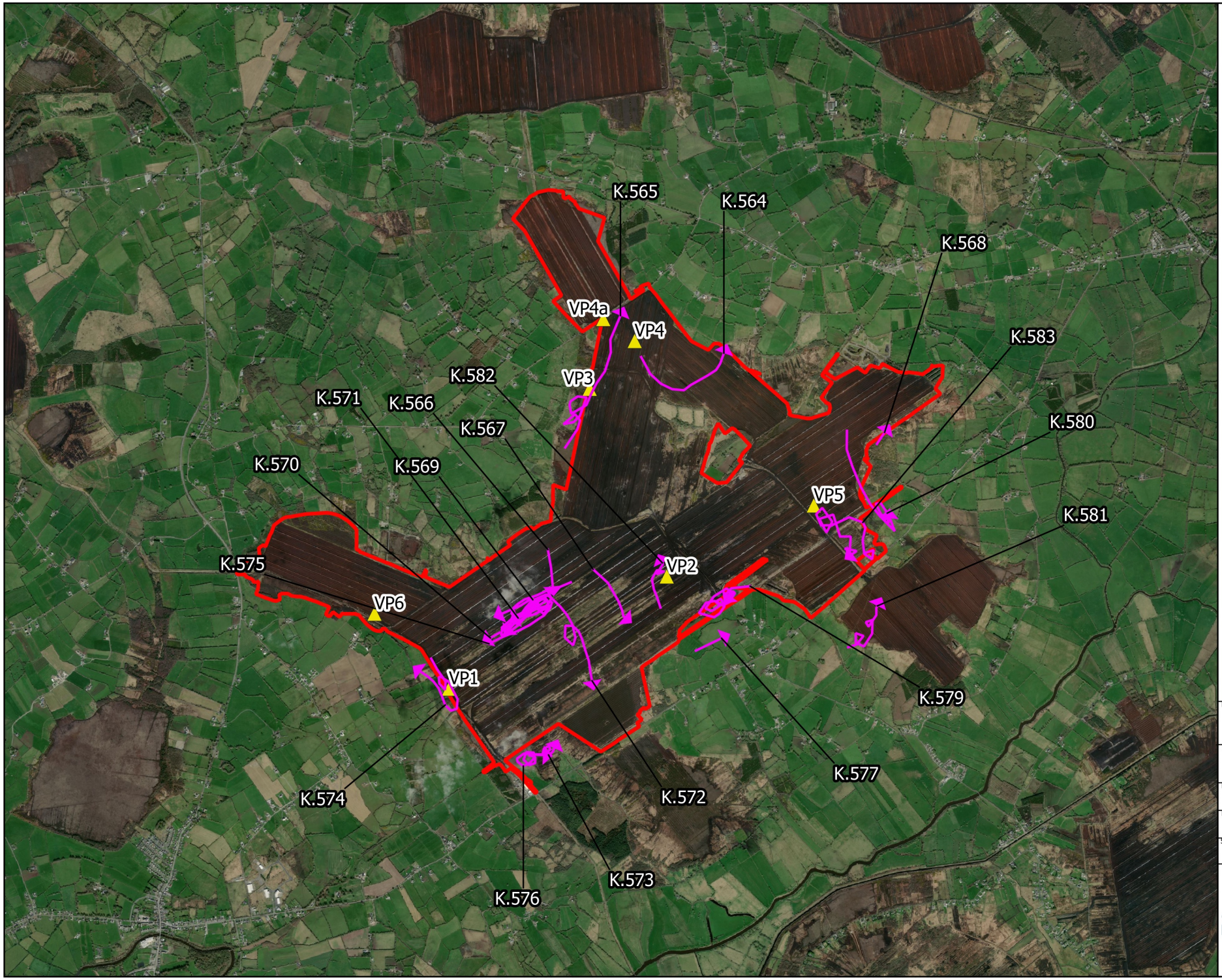
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Drawing Title
Kestrel Observations April 2024
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1t
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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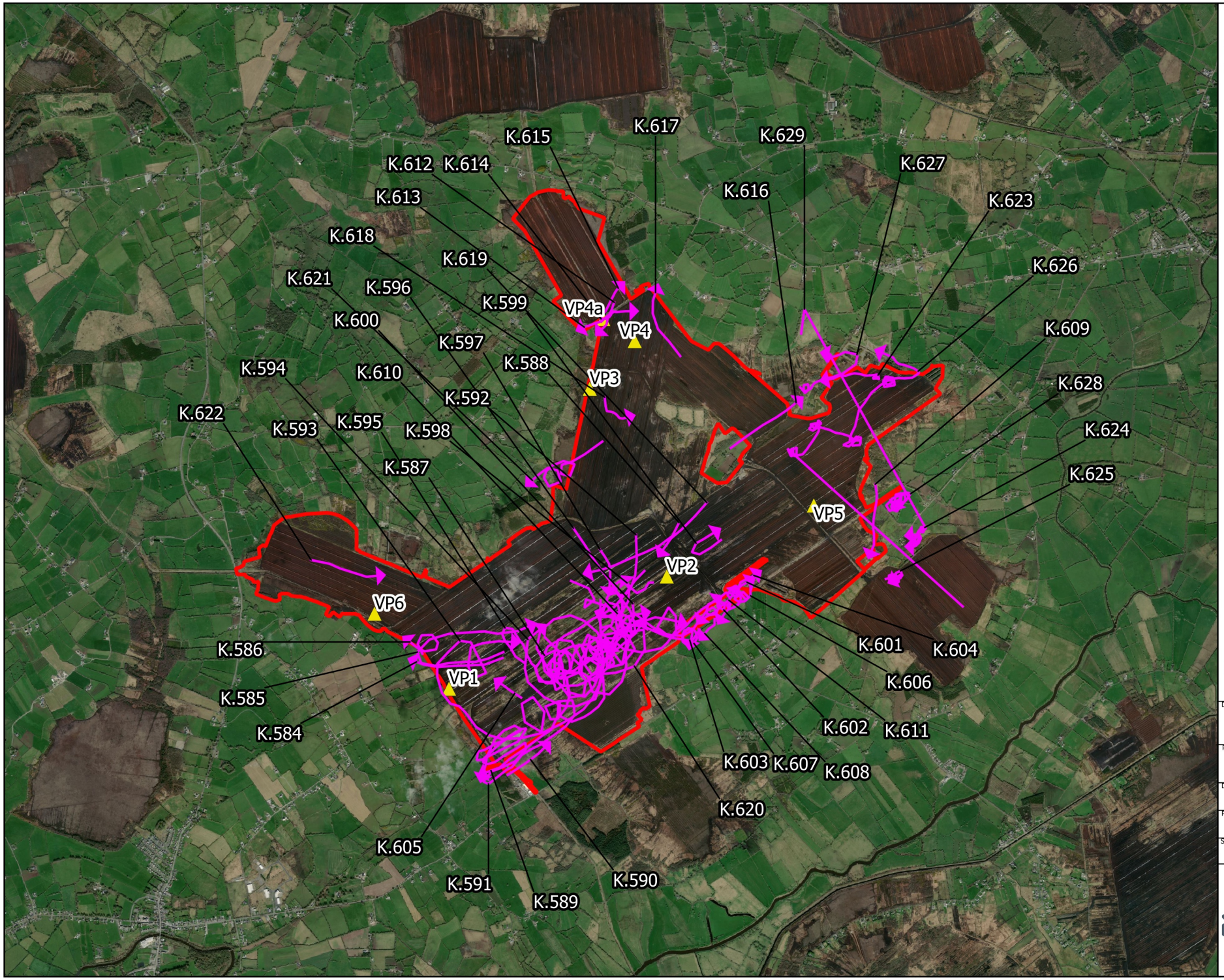
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Drawing Title
Kestrel Observations June 2024
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1u
Scale	Date
1:45,000	17.07.2025

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Map Legend
Application Site Boundary
Vantage Point Locations
Flight Observation
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Drawing Title
Kestrel Observations July 2024
Vantage Point Surveys
Project Title
Extraction in Lemanaghan Bog, Co. Offaly
Drawn By
DW
Checked By
PC
Project No.
200804-e
Drawing No.
Fig. 13.1v
Scale
1:45,000
Date
17.07.2025
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Map Legend

Application Site Boundary

Vantage Point Locations

Flight Observation

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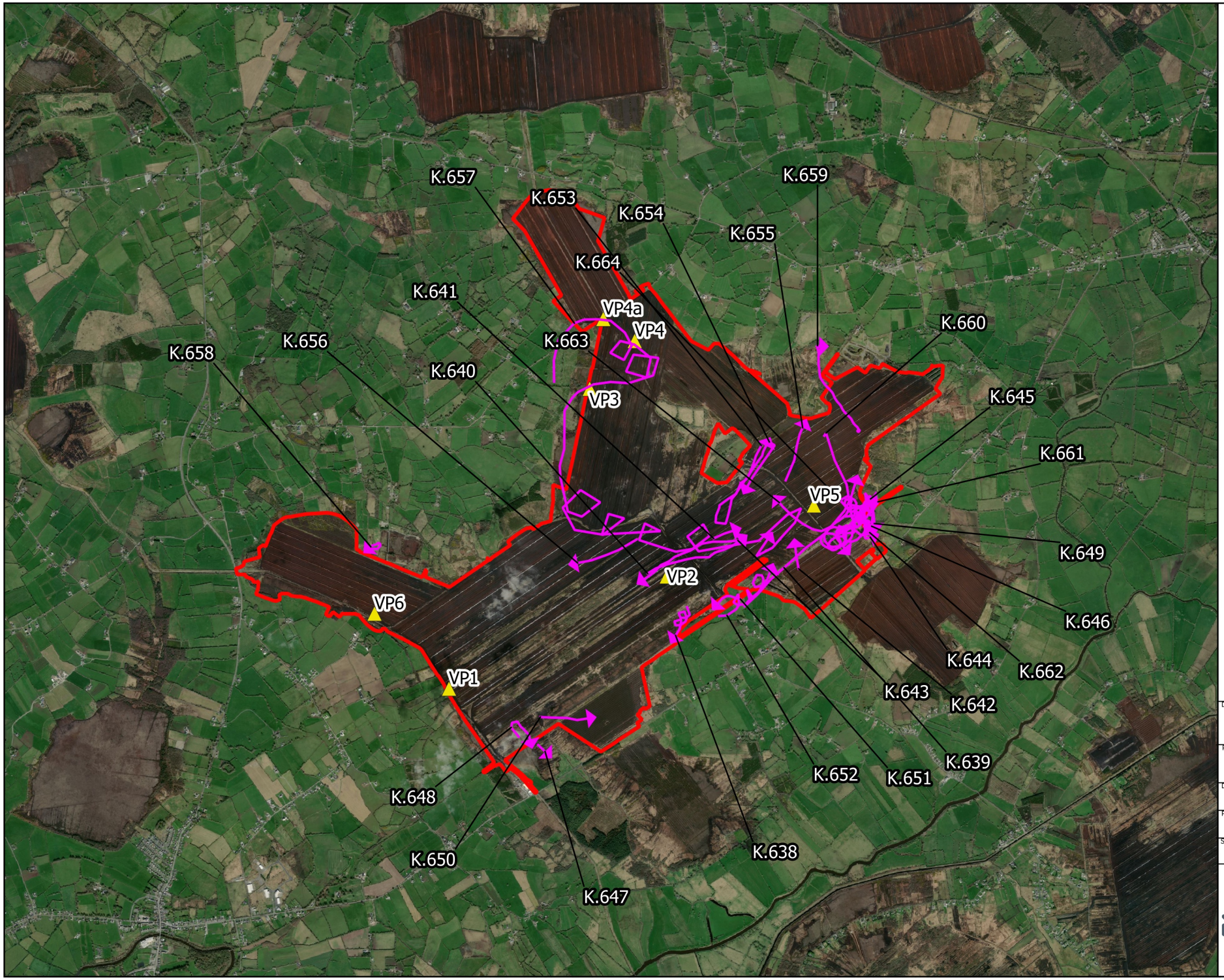
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Drawing Title
Kestrel Observations August 2024
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1w
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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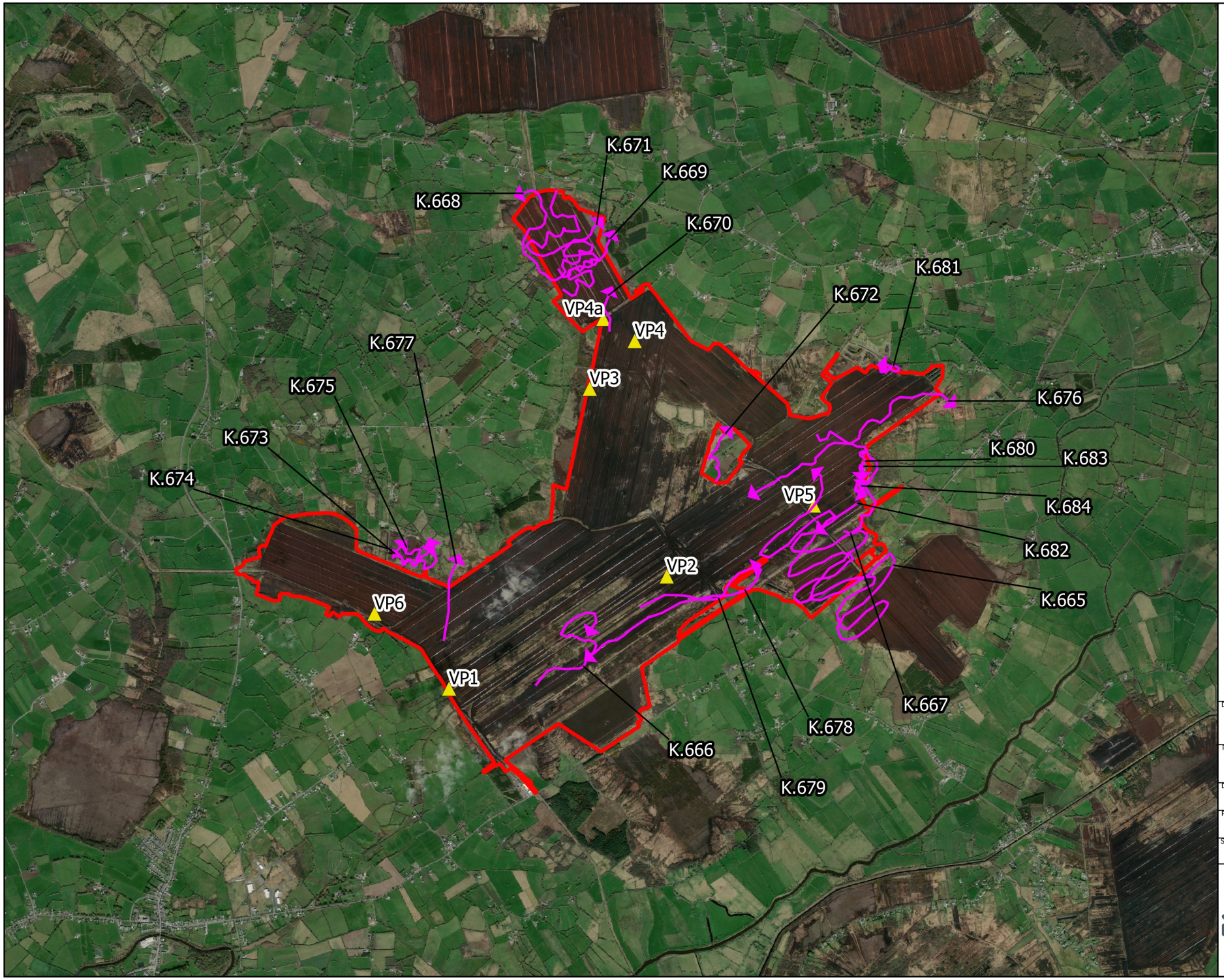
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Drawing Title
Kestrel Observations Sep 2024
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.1x
Scale	Date
1:45,000	17.07.2025

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Map Legend

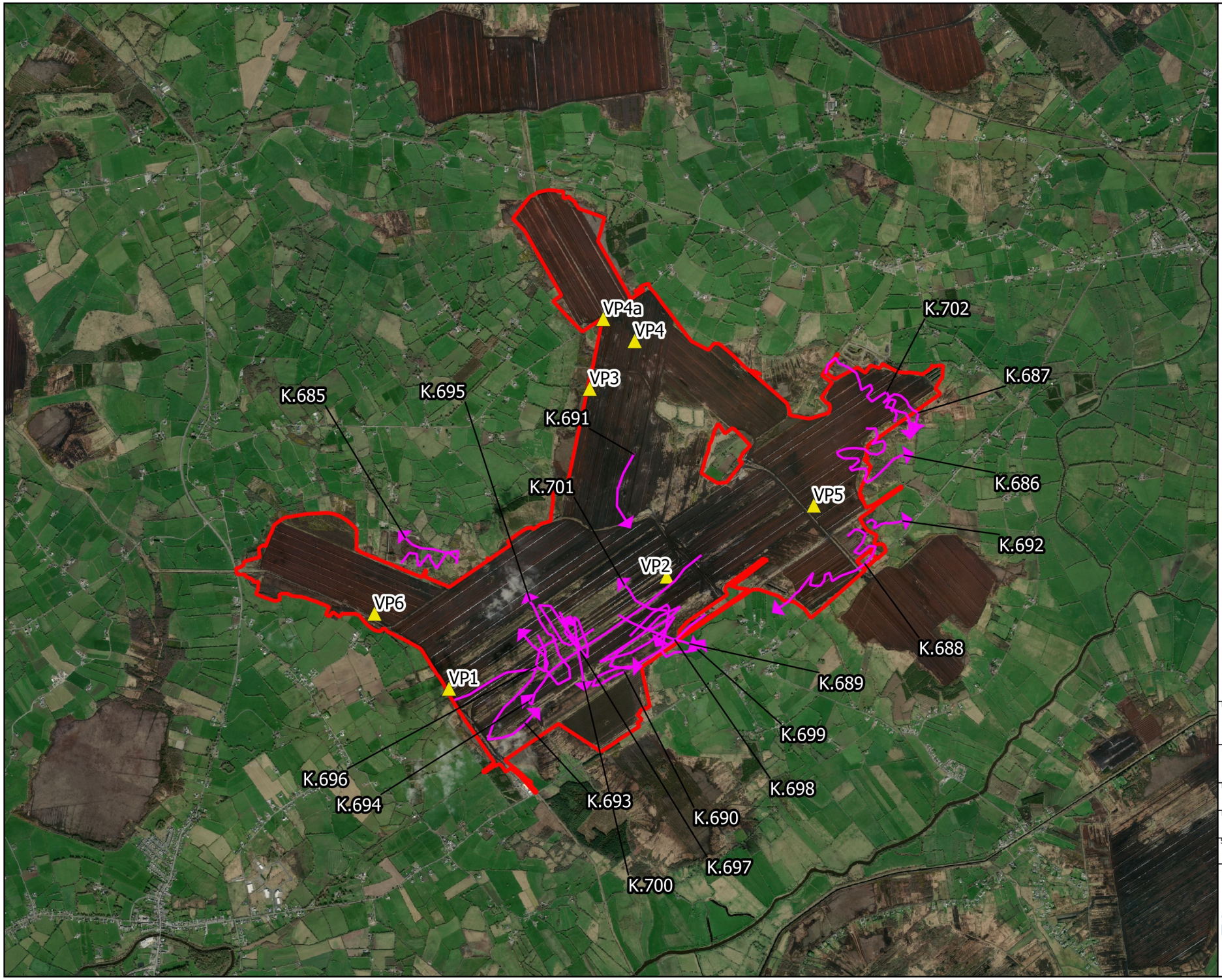
- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title	Kestrel Observations Oct-Dec 2024 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.1y
Scale: 1:45,000	Date: 17.07.2025

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Map Legend

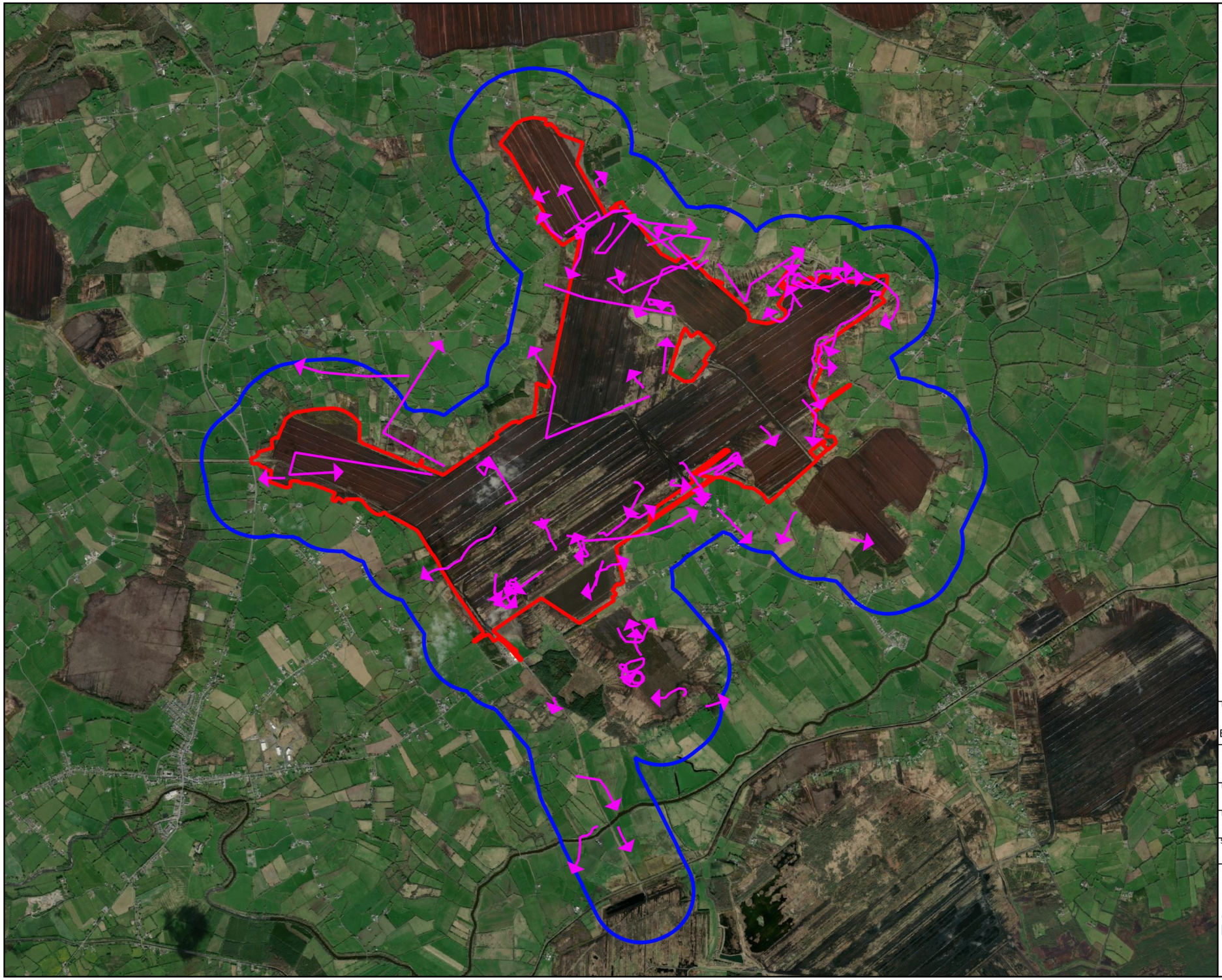
- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title	Kestrel Observations Jan-Mar 2025 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.1z
Scale: 1:45,000	Date: 17.07.2025

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Drawing Title

Kestrel
Breeding Walkover Survey Observations

Project Title

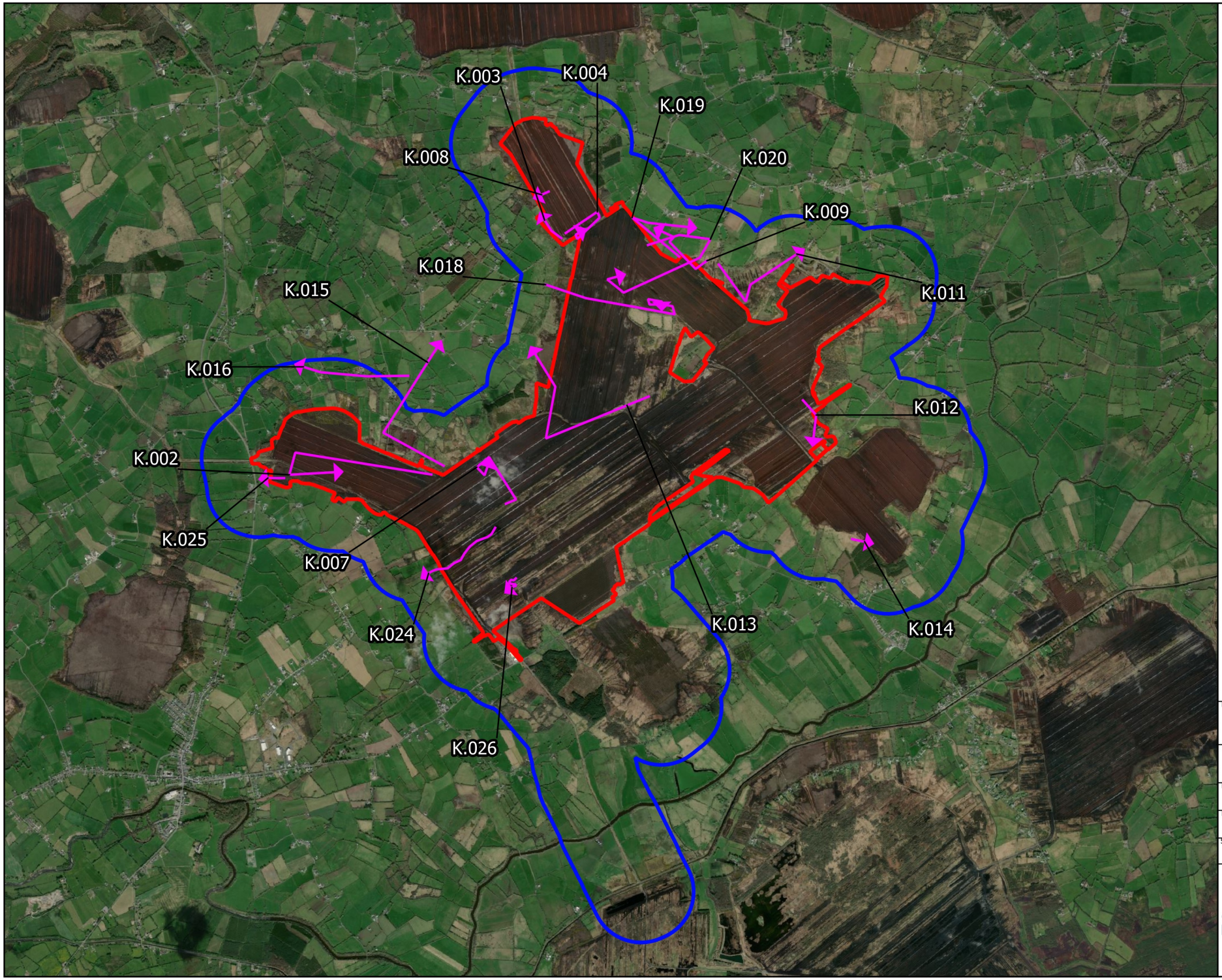
Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.2
Scale	Date
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Observations of Kestrel from Breeding Walkover Surveys have been further divided across the following Figures in order to improve readability:

- Figure 13-2a – Kestrel Breeding Walkover Survey Data – Breeding Season 2021
- Figure 13-2b – Kestrel Breeding Walkover Survey Data – Breeding Season 2022
- Figure 13-2c – Kestrel Breeding Walkover Survey Data – Breeding Season 2023
- Figure 13-2d – Kestrel Breeding Walkover Survey Data – Breeding Season 2024



Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

N

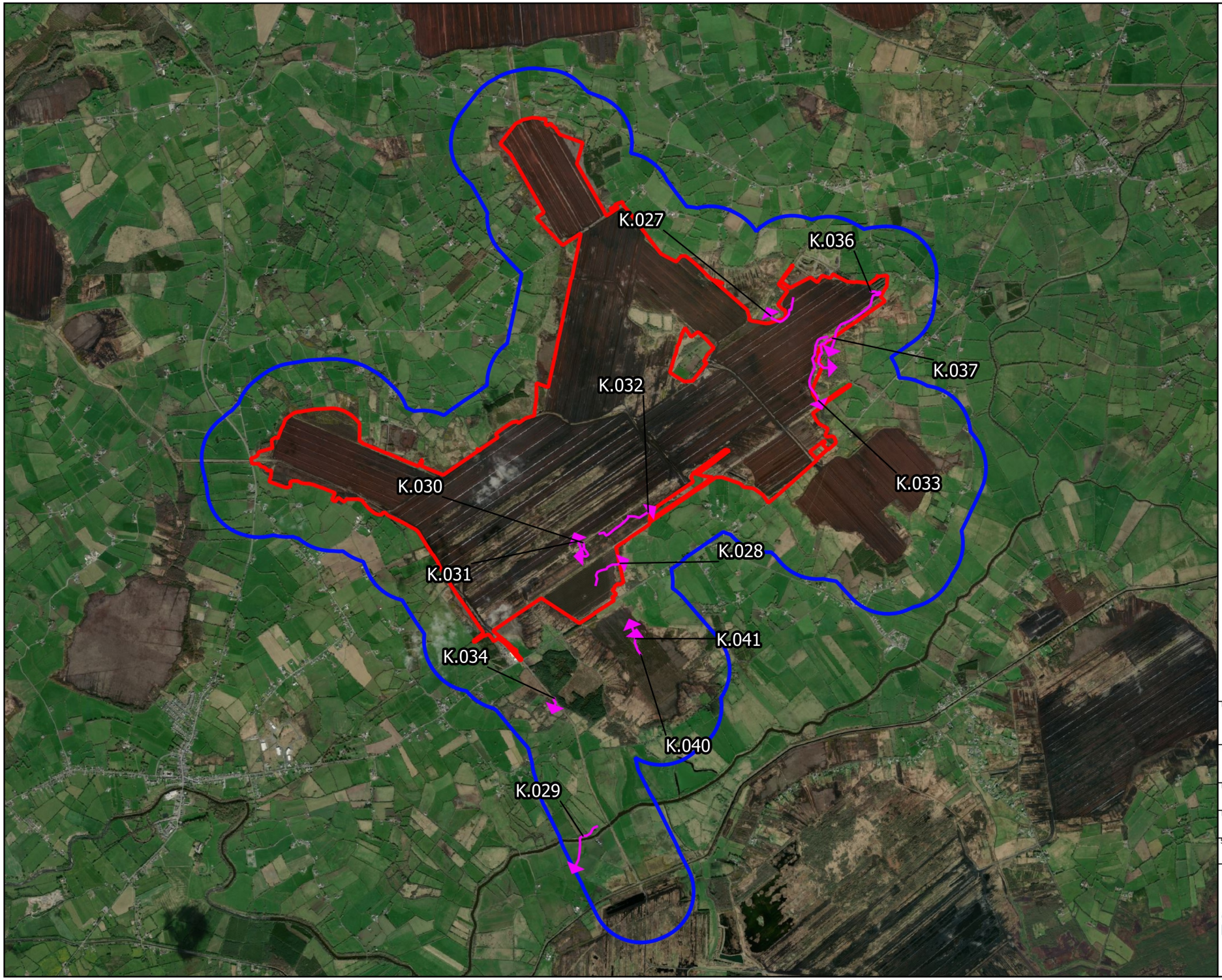
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Drawing Title
Kestrel Observations 2021
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.2a
Scale	Date
1:50,000	17.07.2025

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Map Legend

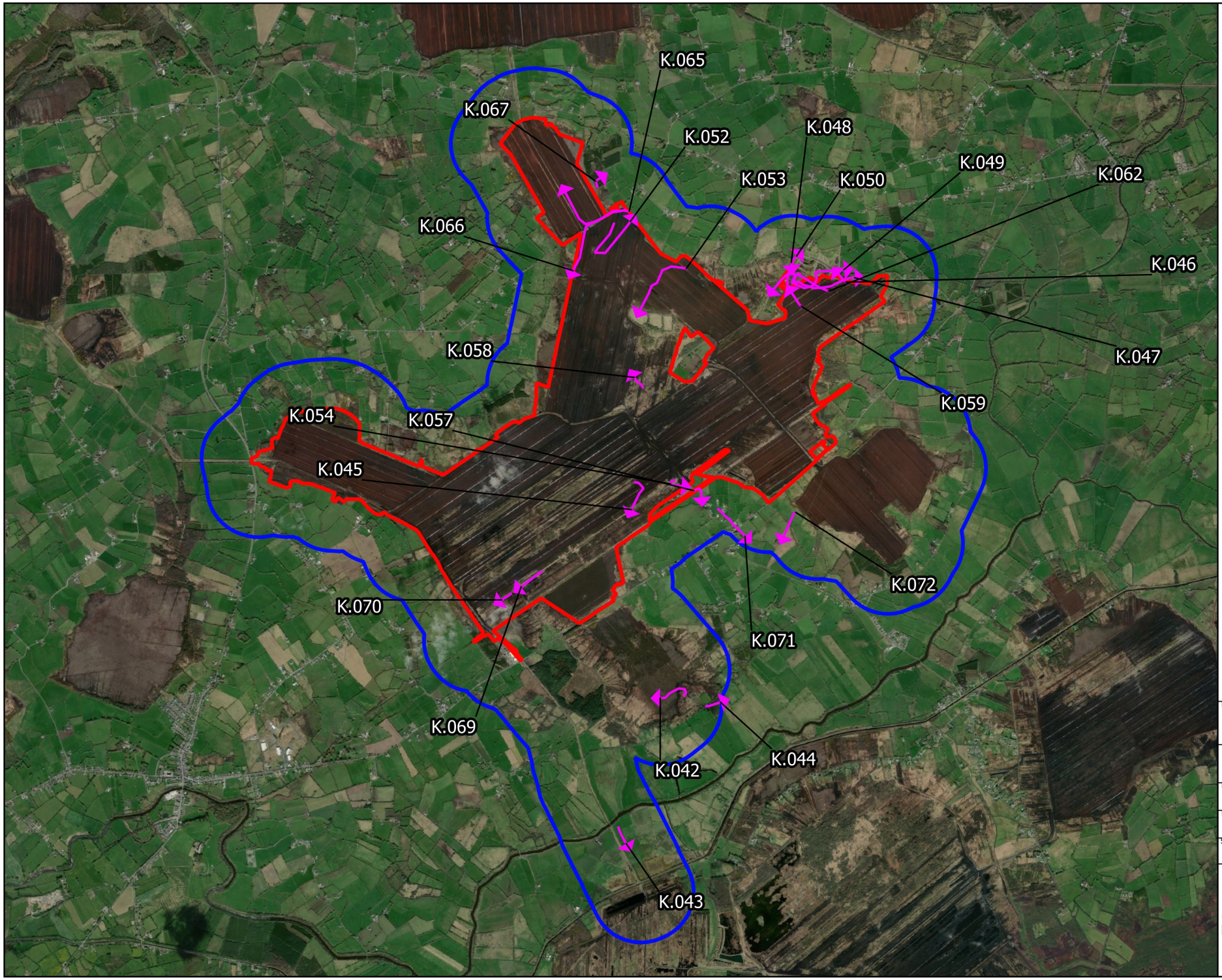
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Kestrel Observations 2022 Breeding Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.2b
Scale: 1:50,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title

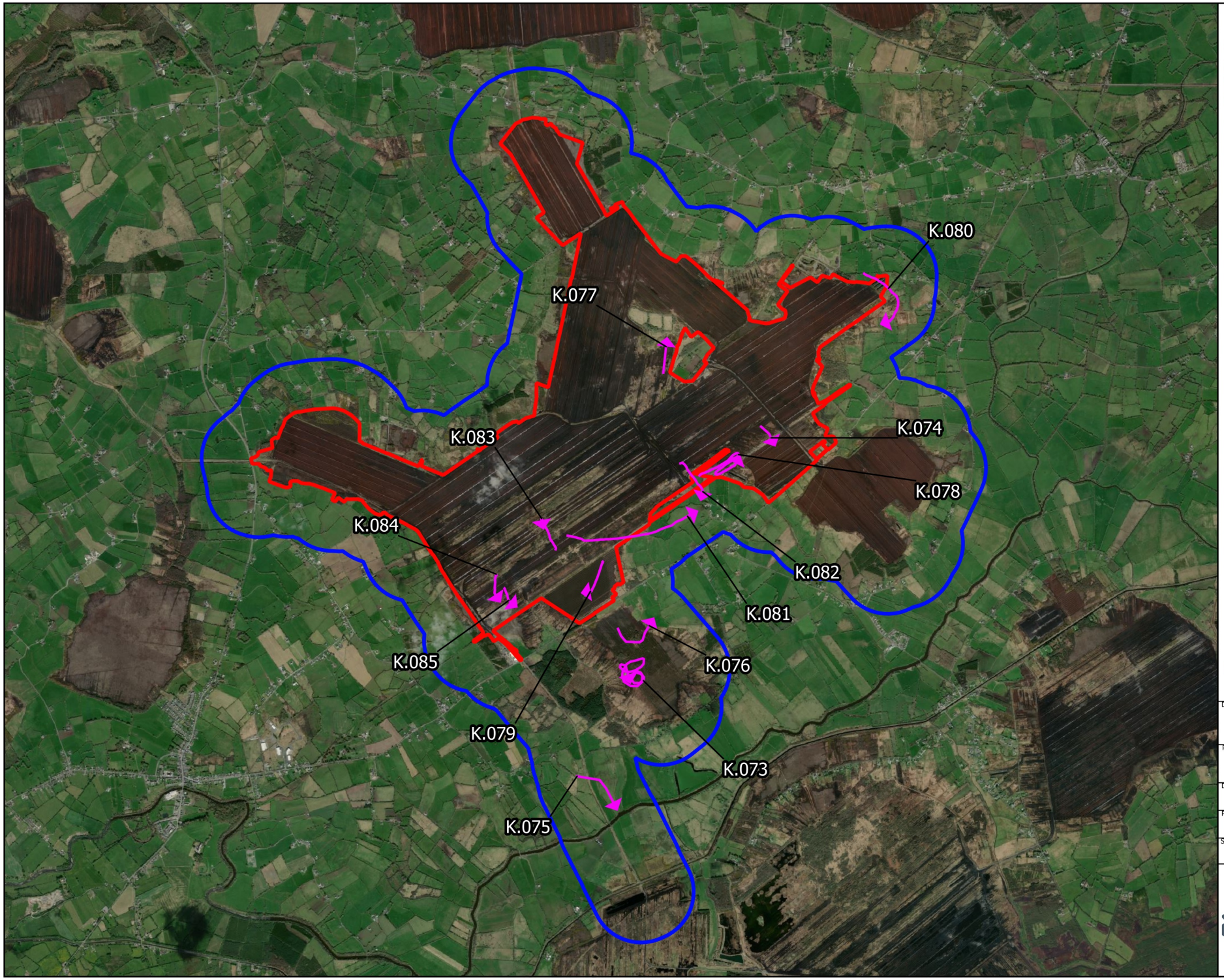
Kestrel Observations 2023
Breeding Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.2c
Scale	Date
1:50,000	17.07.2025

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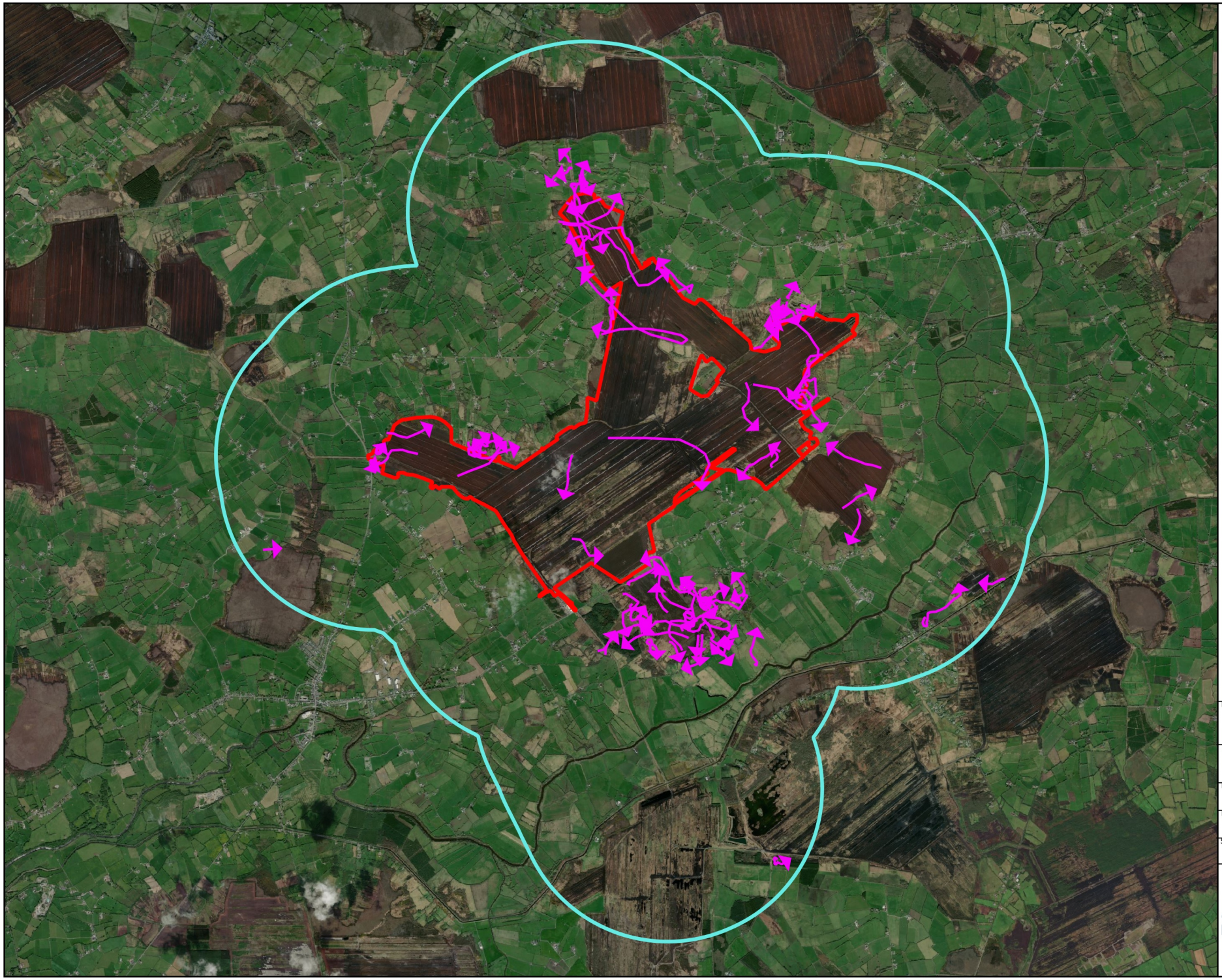
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Kestrel Observations 2024 Breeding Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.2d
Scale: 1:50,000	Date: 17.07.2025

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Drawing Title

Kestrel
Breeding Raptor Survey Observations

Project Title

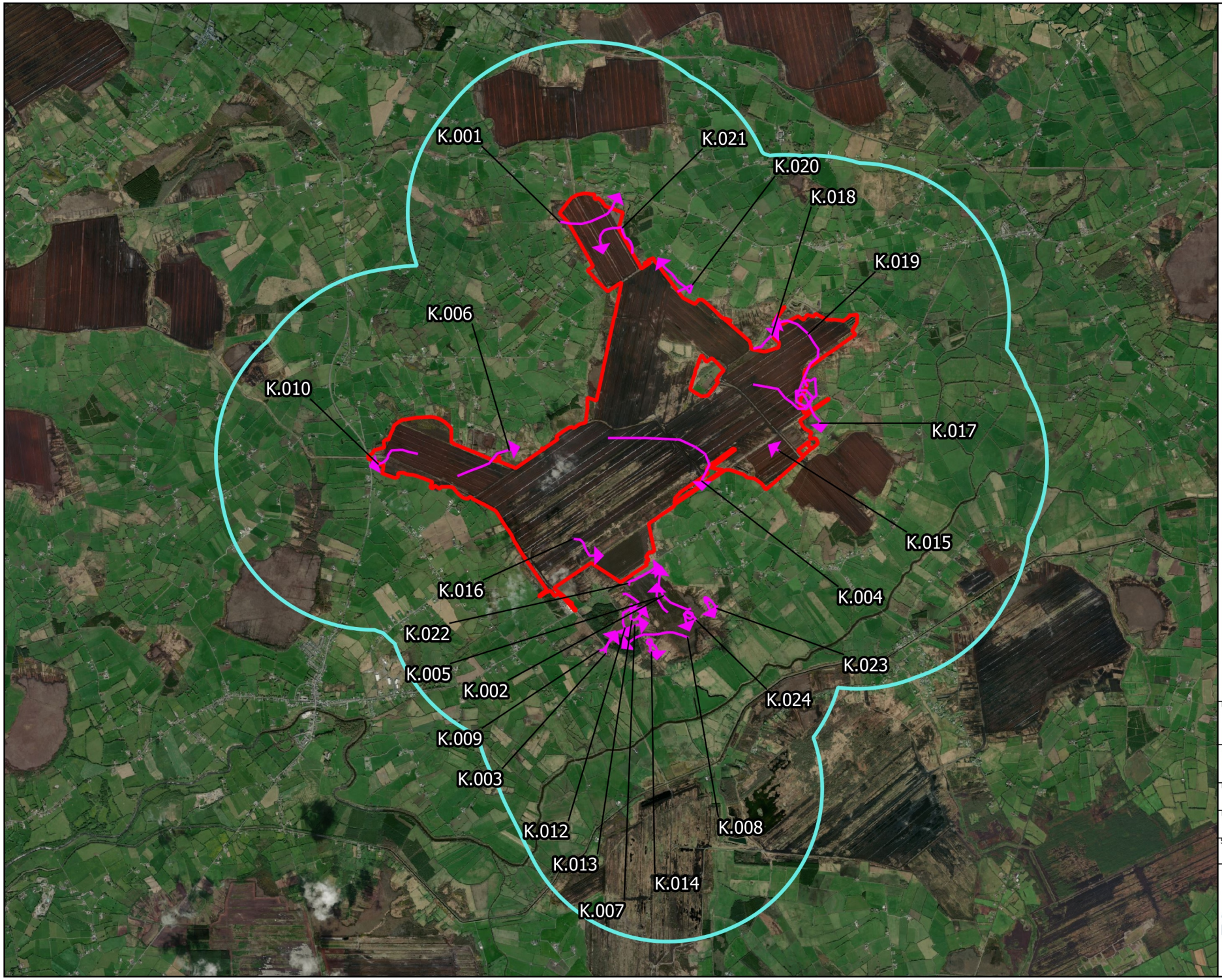
Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.3
Scale	Date
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Observations of Kestrel from Breeding Raptor Surveys have been further divided across the following Figures in order to improve readability:

- Figure 13-3a – Kestrel Breeding Raptor Survey Data – Breeding Season 2021
- Figure 13-3b – Kestrel Breeding Raptor Survey Data – Breeding Season 2022
- Figure 13-3c – Kestrel Breeding Raptor Survey Data – Breeding Season 2023
- Figure 13-3d – Kestrel Breeding Raptor Survey Data – Breeding Season 2024



Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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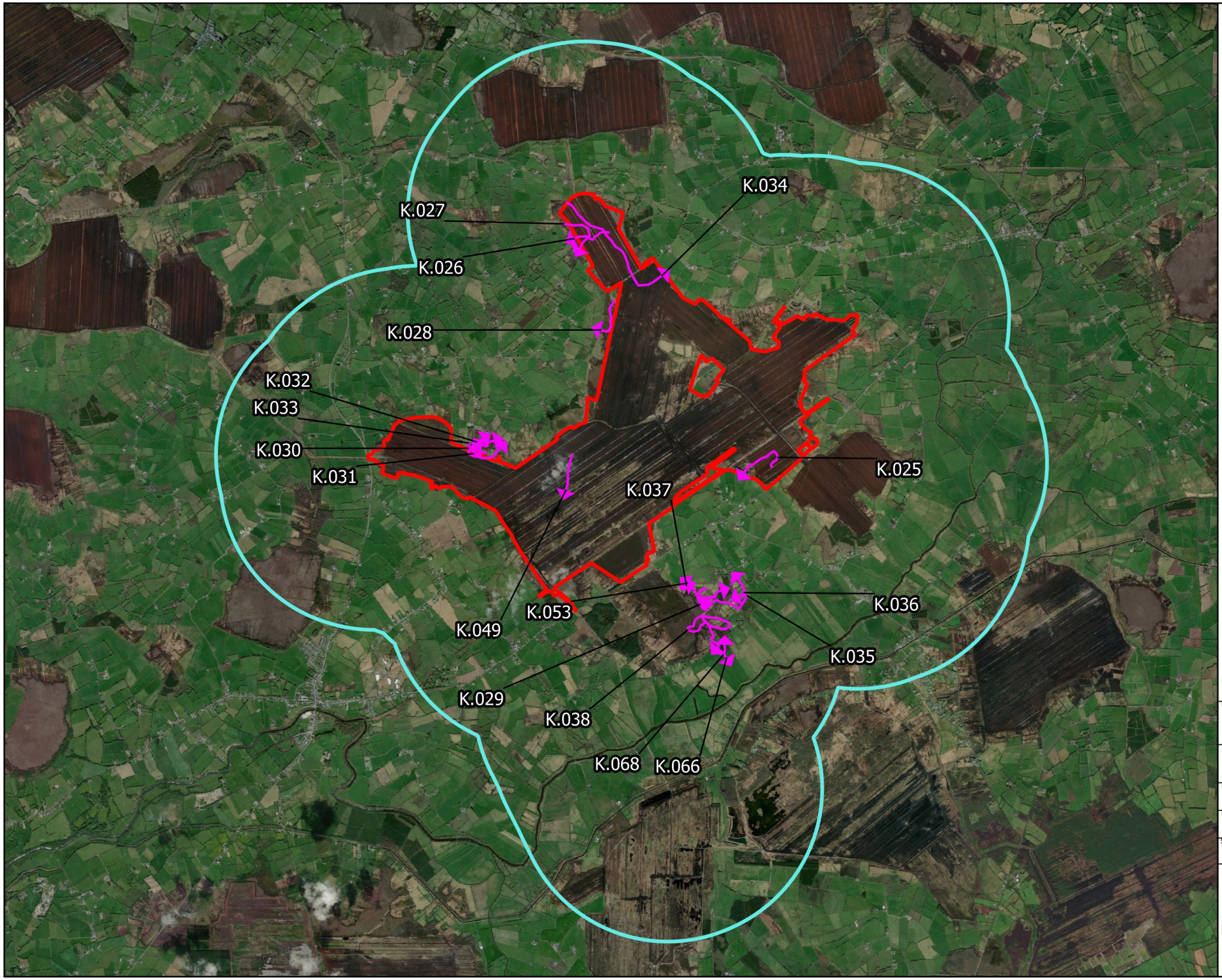
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Drawing Title
Kestrel Observations 2021
Breeding Raptor Survey

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.3a
Scale	Date
1:65,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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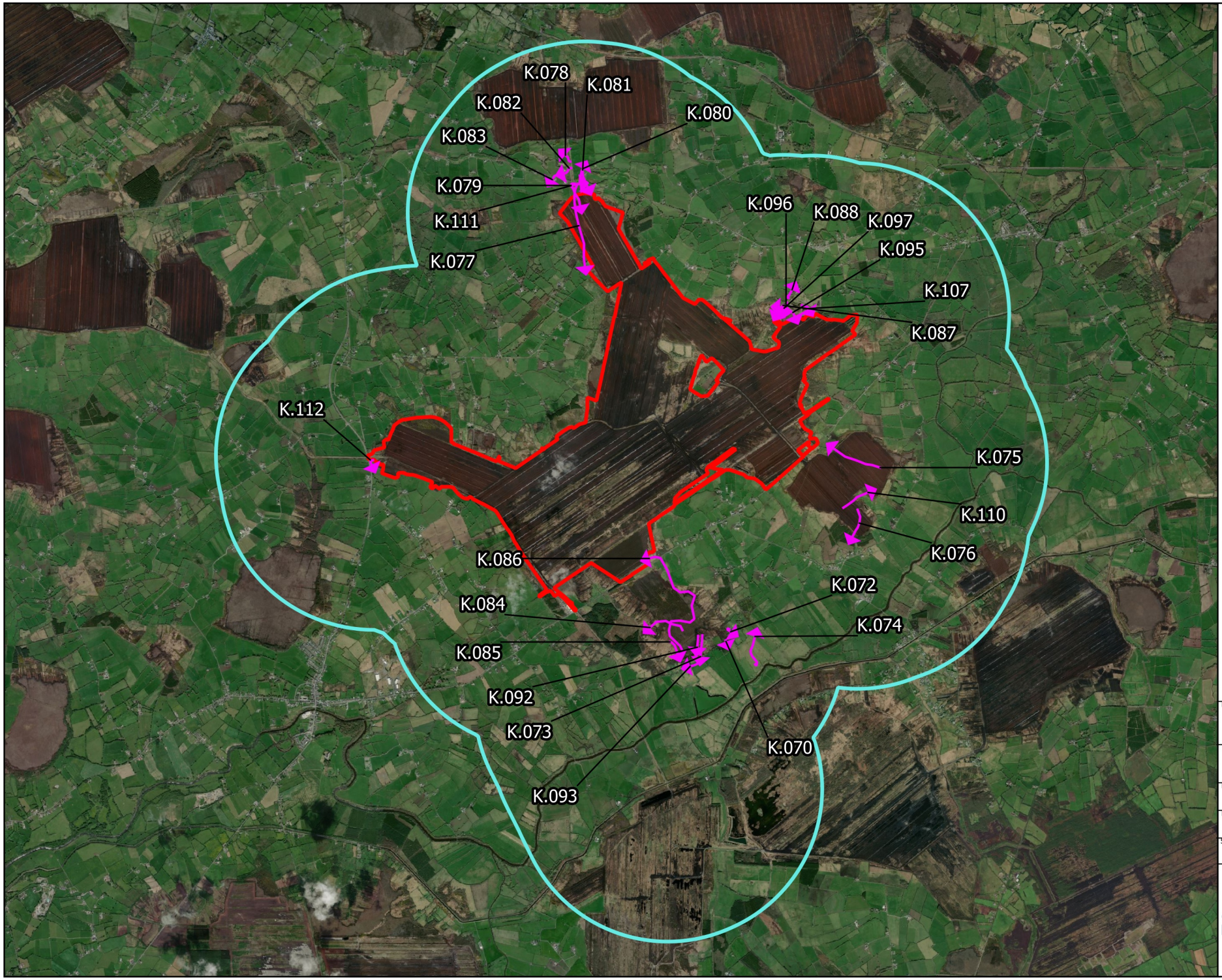
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Drawing Title
Kestrel Observations 2022
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.3b
Scale	Date
1:65,000	17.07.2025

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Map Legend

Application Site Boun

Survey Area

Flight Observation

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N

Drawing Title

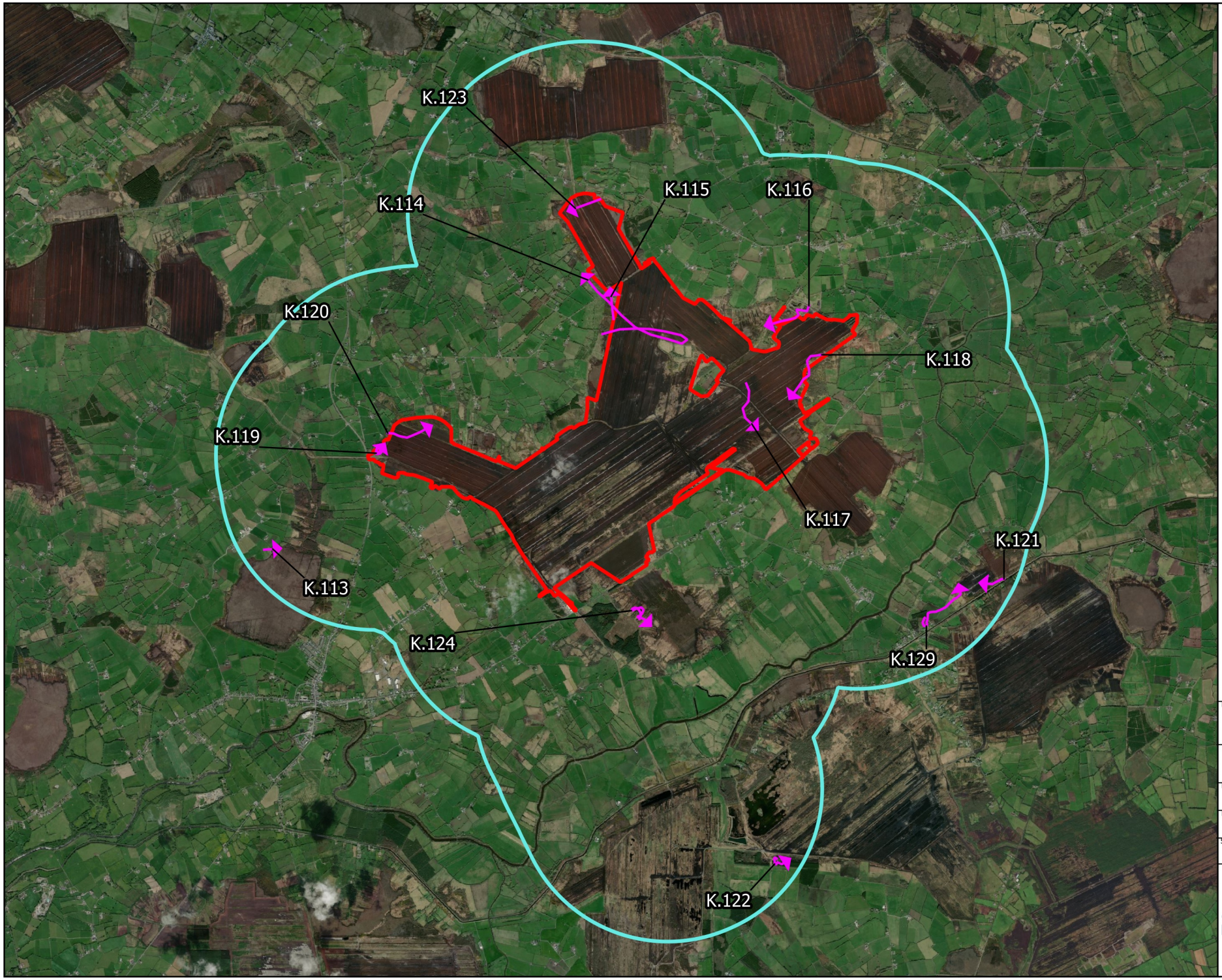
Kestrel Observations 2023
Breeding Raptor Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 13.3c
Scale	Date
1:65,000	17.07.2025

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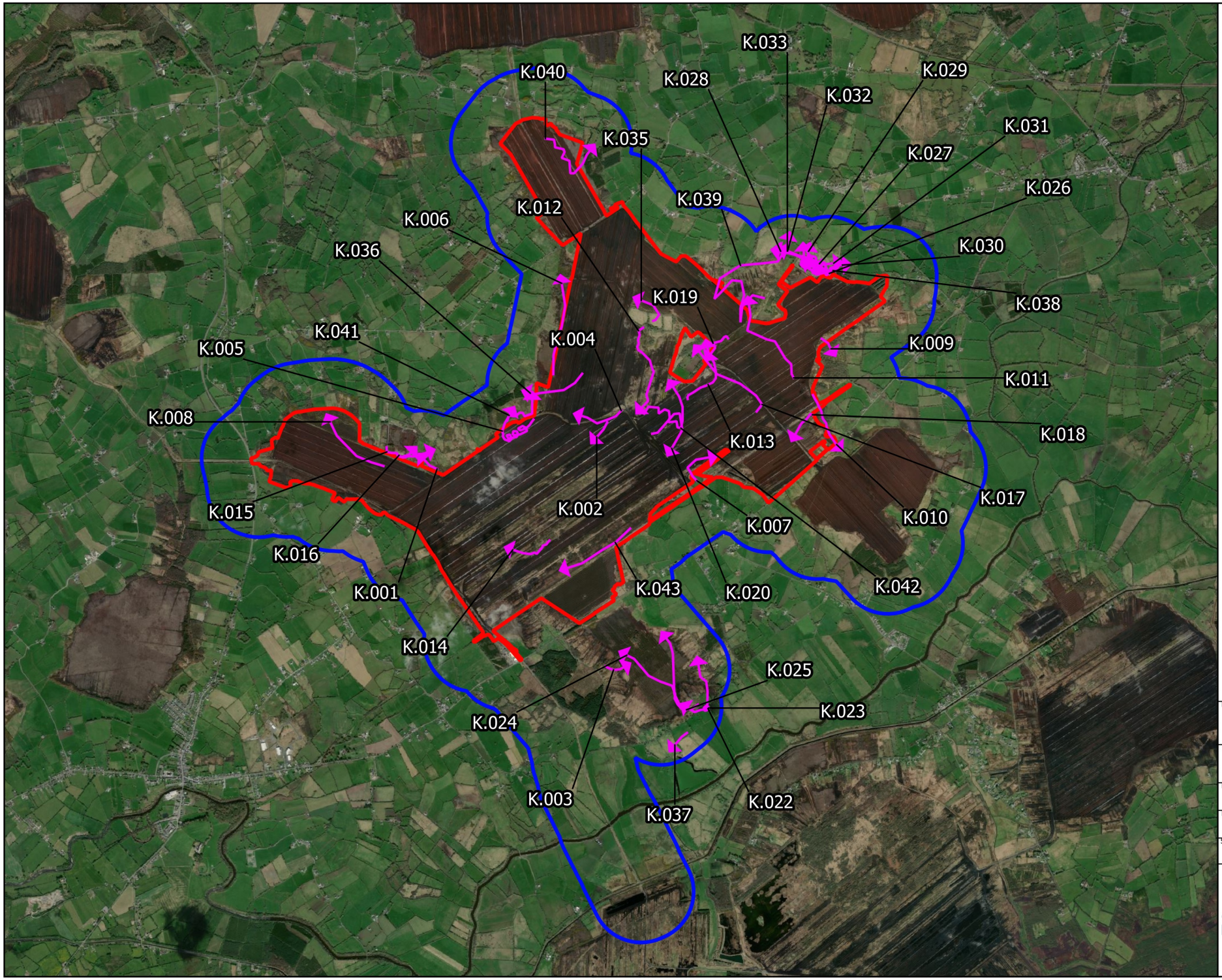
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Kestrel Observations 2024 Breeding Raptor Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 13.3d
Scale: 1:65,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title

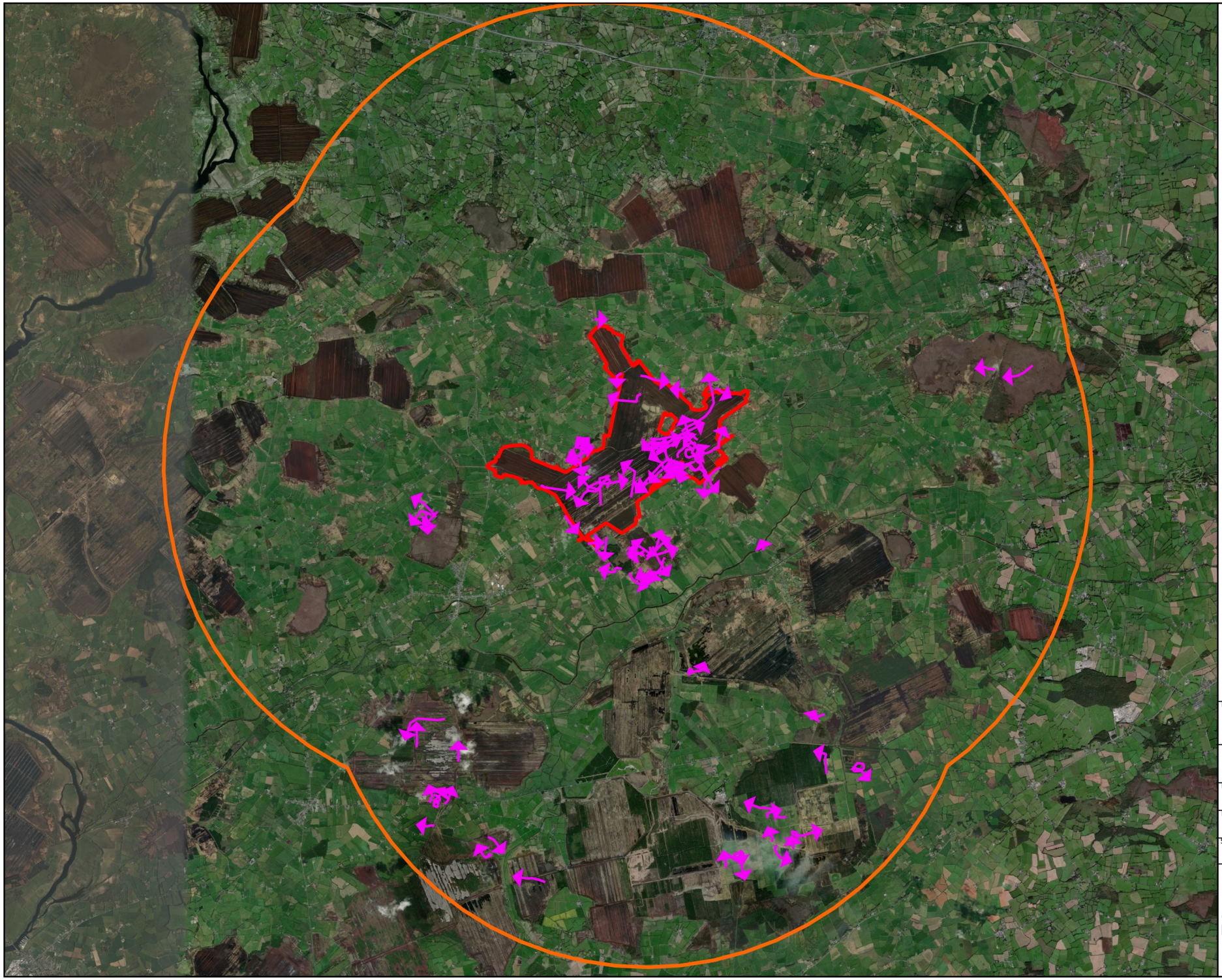
Kestrel
Winter Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.4
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

N

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Drawing Title

Kestrel
Incidental Records

Project Title

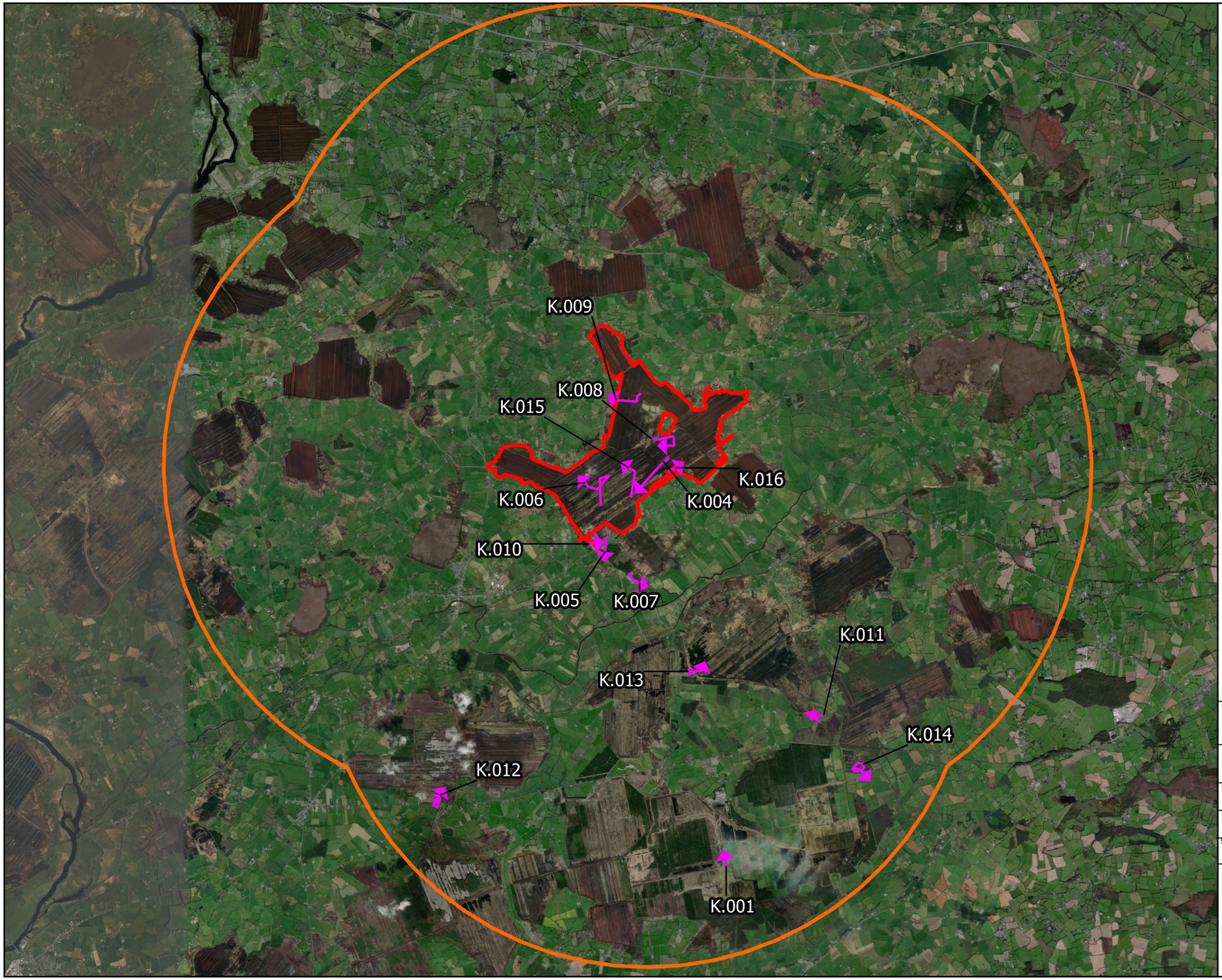
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5
Scale	Date
1:122,000	17.07.2025

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Incidental records of Kestrel have been further divided across the following Figures in order to improve readability:

- Figure 13-5a – Kestrel Incidental Records – Winter Season 2020/21 & Breeding Season 2021
- Figure 13-5b – Kestrel Incidental Records – Winter Season 2021/22 & Breeding Season 2022
- Figure 13-5c – Kestrel Incidental Records – Winter Season 2022/23 & Breeding Season 2023
- Figure 13-5d – Kestrel Incidental Records – Winter Season 2023/24 & Breeding Season 2024
- Figure 13-5e – Kestrel Incidental Records – Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

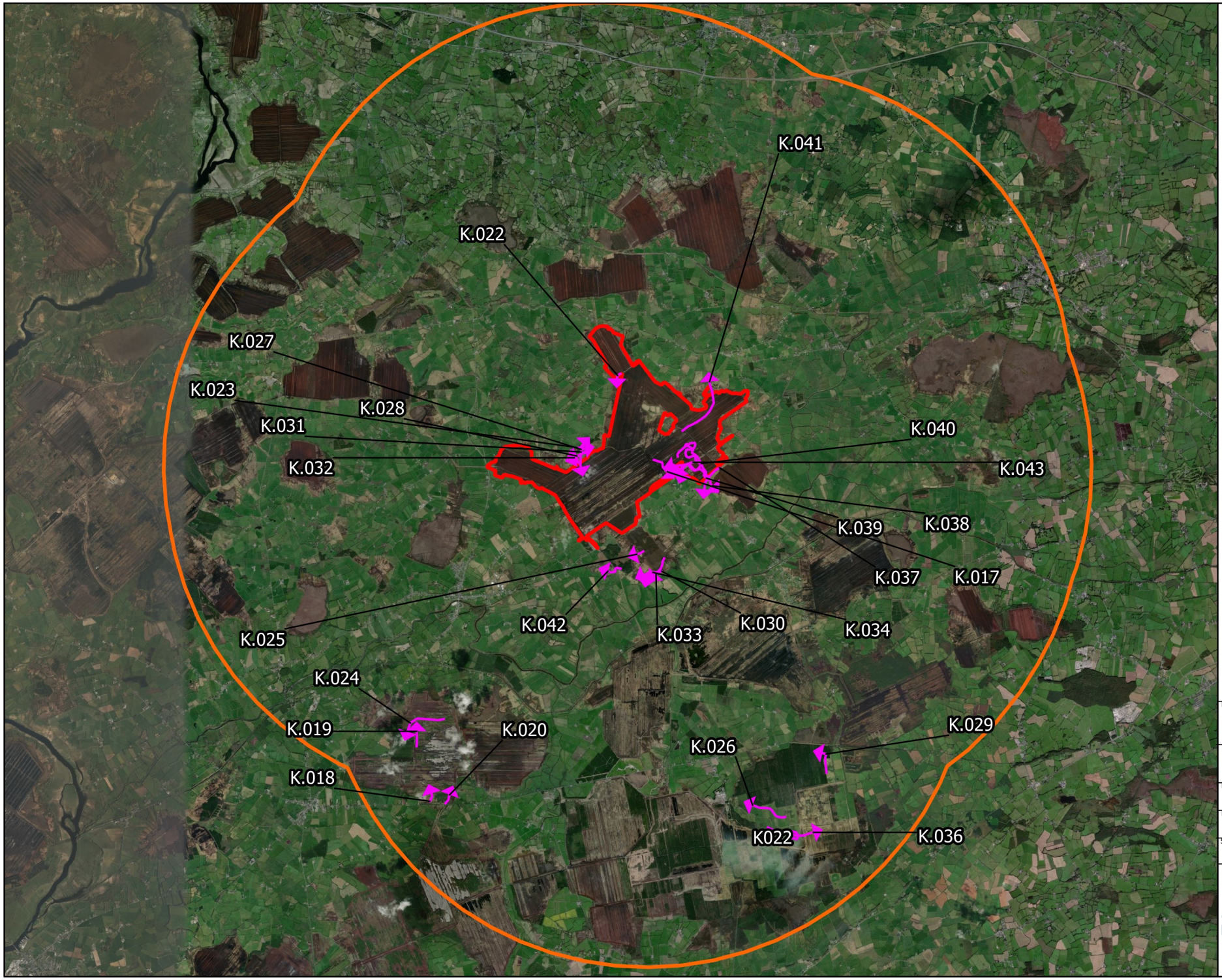
Kestrel
Incidental Records (Oct20-Sep21)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5a
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

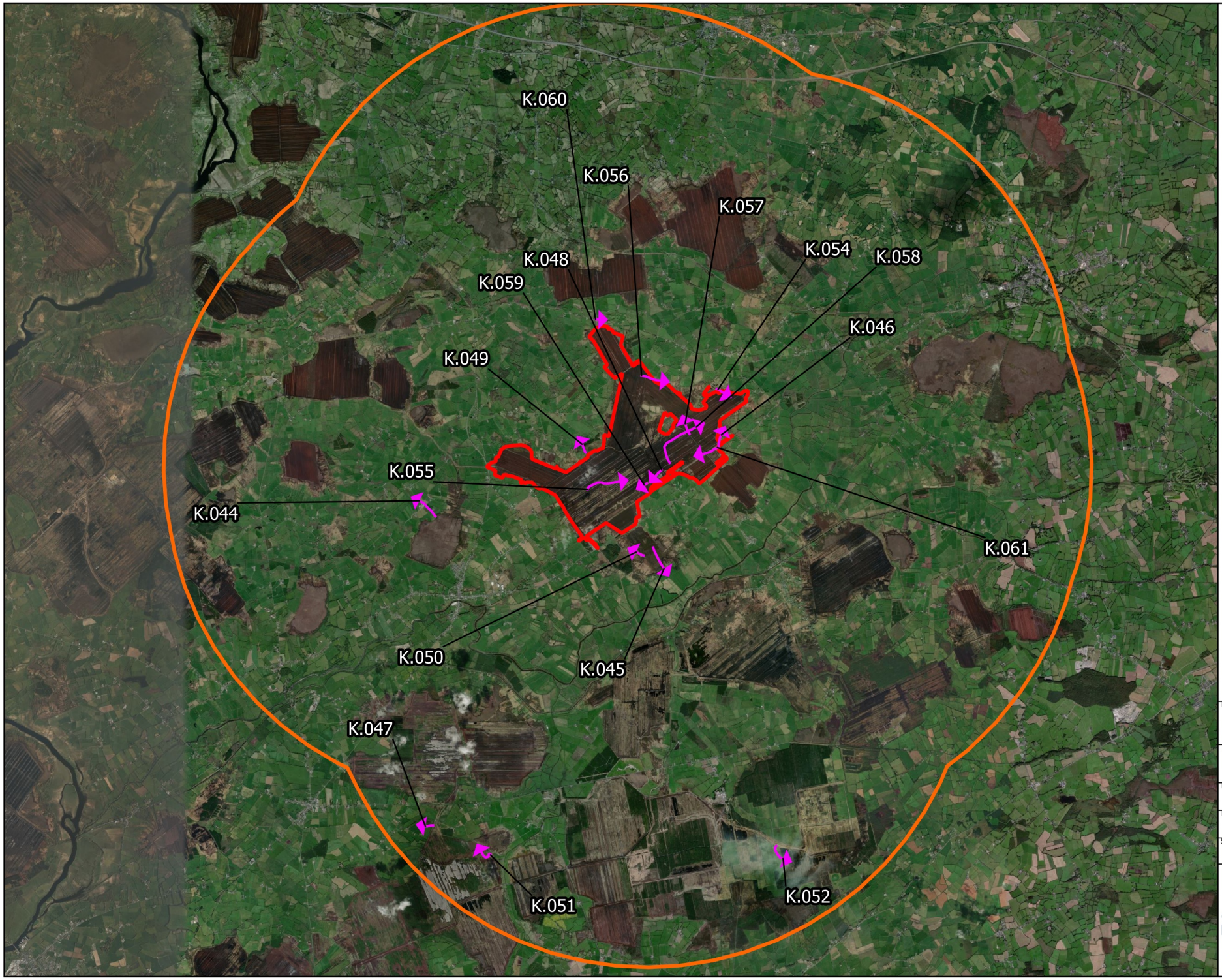
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Drawing Title
Kestrel
Incidental Records (Oct21-Sep22)

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5b
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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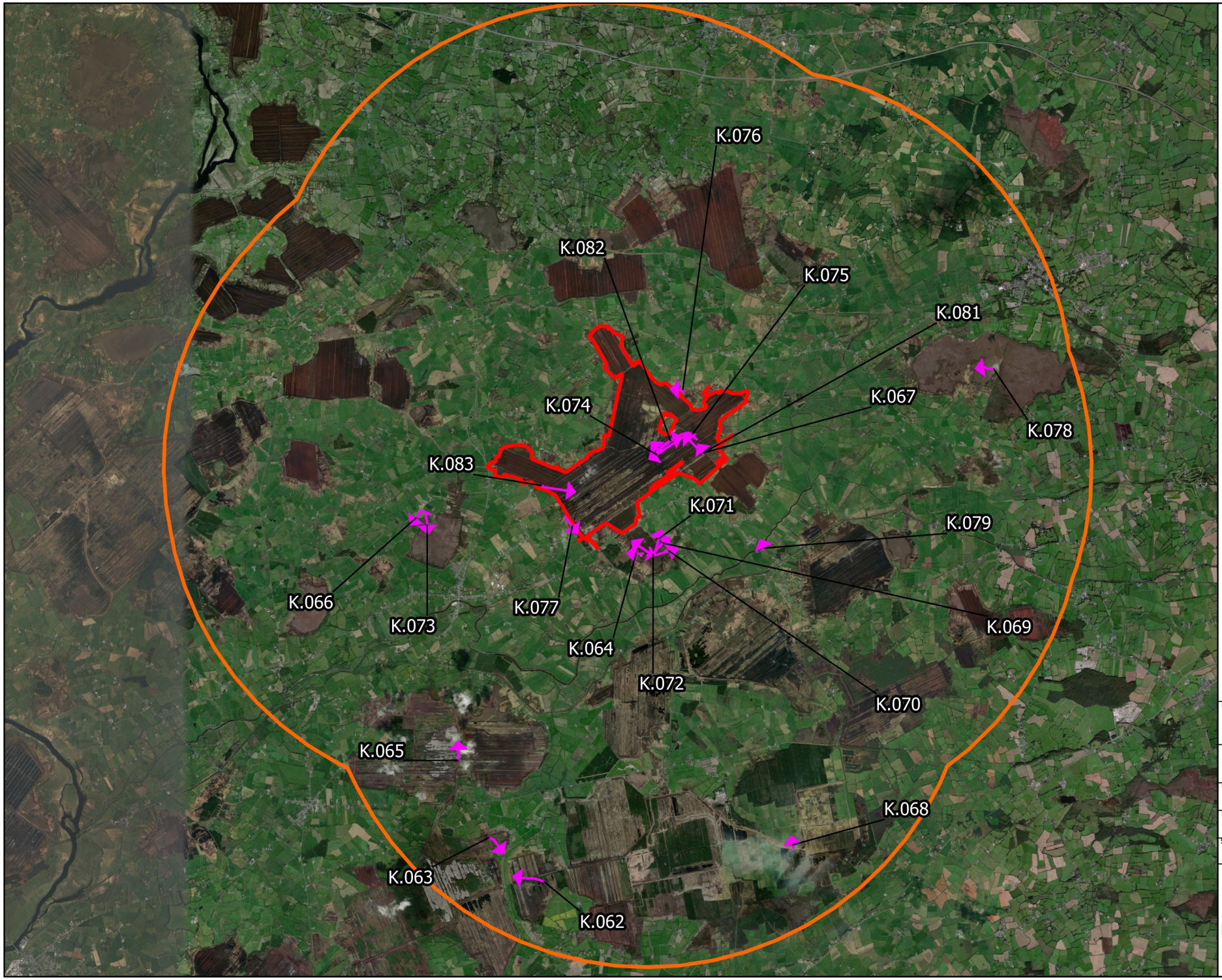
N

Drawing Title
Kestrel
Incidental Records (Oct22-Sep23)

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5c
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

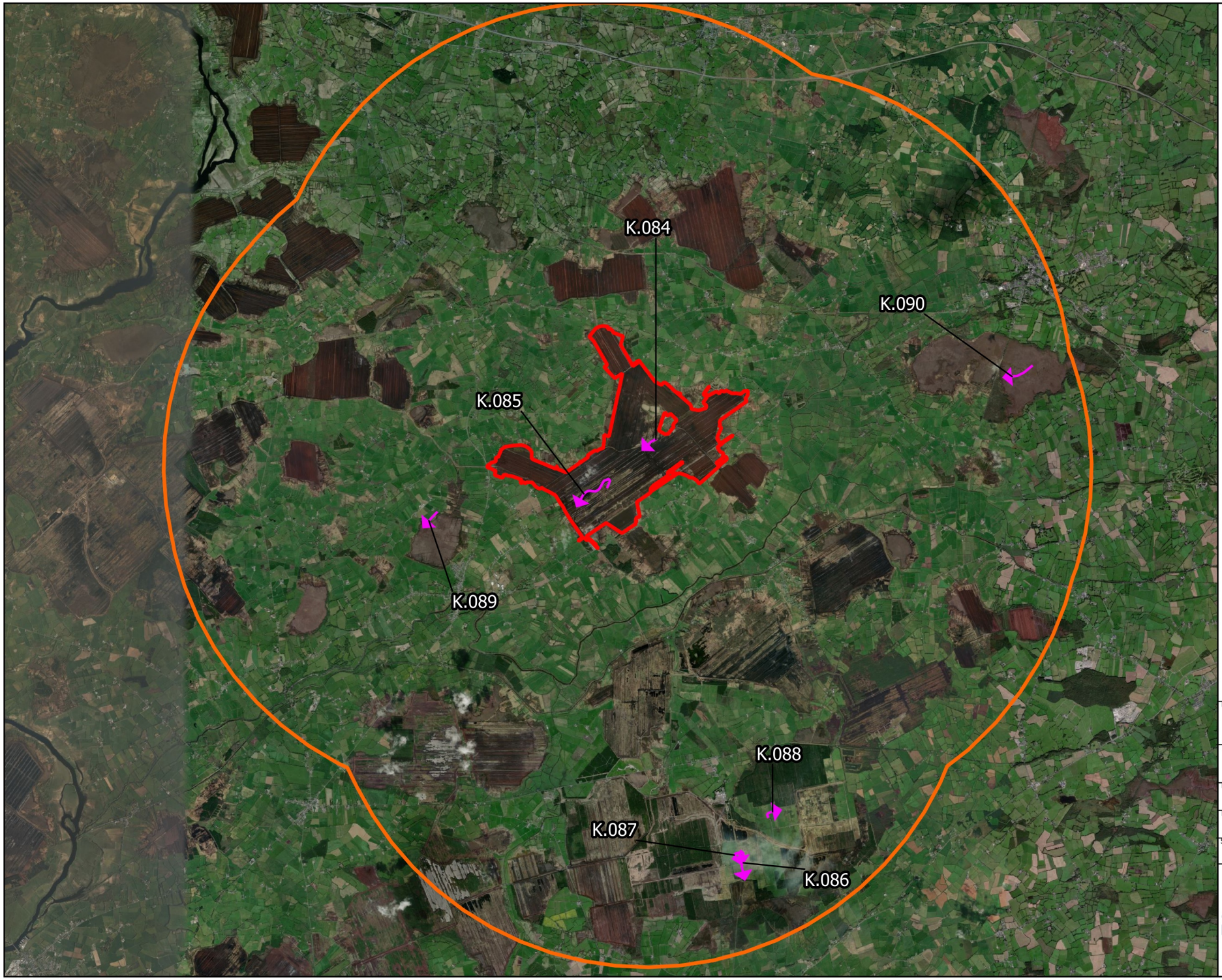
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Drawing Title
Kestrel
Incidental Records (Oct23-Sep24)

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5d
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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N

Drawing Title

Kestrel
Incidental Records (Oct24-Mar25)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.5e
Scale	Date
1:122,000	17.07.2025

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14. SNIPE

Table 14-1 Snipe Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN001	VP6	30/10/2020	15:36	Snipe	1	35	0	0	35	0	cutover bog and improved agricultural grassland; travelling	JH
SN002	VP5	13/01/2021	09:31	Snipe	1	10	10	0	0	0	cutover bog; travelling, flushed by hen harrier	JH
SN003	VP3	20/01/2021	09:50	Snipe	1	22	5	17	0	0	cutover bog; travelling, landing on pb4	JH
SN004	VP2	04/03/2021		Snipe	1	-	-	-	-	-	cutover bog and scrub; chipping, heard only/ too dark	JH
SN005	VP1	30/03/2021	20:42	Snipe	1	210	0	0	0	0	cutover bog; prolonged drumming, not seen (dark), mapped location approximate	PT
SN006	VP1	30/03/2021	20:47	Snipe	1	0	0	0	0	0	cutover bog; calling in flight, heard only, possibly flying north	PT
SN007	VP2	25/05/2021	06:53	Snipe	1	18	18	0	0	0	cutover bog and drainage ditches; flying, flew low over ground over bank and out of sight	SOB
SN008	VP3	27/05/2021	08:48	Snipe	1	14	2	10	2	0	wet grassland, cutover bog and mixed broadleaved woodland; flying and landing, snipe flying at height taller than trees, did a circle and landed on ground	SOB
SN009	VP6	08/06/2021	13:53	Snipe	1	15	15	0	0	0	cutover bog, scrub and drainage ditches; alarmed flight, snipe flew alarmedly away (disturbed by fox or pine martin?)	SOB
SN010	VP5	20/10/2021	13:30	Snipe	1	-	-	-	-	-	cutover bog and bog woodland; calling, heard calling.	CR
SN011	VP6	26/10/2021	07:45	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN012	VP1	01/11/2021	17:32	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN013	VP1	01/11/2021	17:39	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN014	VP1	01/11/2021	17:49	Snipe	1	9	9	0	0	0	cutover bog; flying/calling, heading south west	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN015	VP2	02/11/2021	17:38	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN016	VP2	02/11/2021	17:41	Snipe	2	-	-	-	-	-	cutover bog; calling, at least two snipe heard calling north east of vp2.	CR
SN017	VP2	02/11/2021	17:50	Snipe	1	-	-	-	-	-	cutover bog; calling, heard calling	CR
SN018	VP4	04/11/2021	17:25	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN019	VP5	05/11/2021	17:26	Snipe	1	-	-	-	-	-	cutover bog; calling, calling	CR
SN020	VP5	05/11/2021	17:30	Snipe	2	-	-	-	-	-	cutover bog; calling, at least two birds heard calling to the north.	CR
SN021	VP5	05/11/2021	17:35	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN022	VP4	10/12/2021	08:23	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN023	VP6	13/12/2021	07:49	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN024	VP5	05/01/2022	13:09	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN025	VP6	26/01/2022	17:32	Snipe	3	8	8	0	0	0	cutover bog; fly	AOD
SN026	VP6	26/01/2022	17:54	Snipe	2	5	0	5	0	0	cutover bog; fly	AOD
SN027	VP4	14/03/2022	19:19	Snipe	1	-	-	-	-	-	cutover bog; calling, heard calling to the east.	CR
SN028	VP5	04/05/2022	21:19	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN029	VP2	25/05/2022	22:20	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN030	VP3	31/05/2022	22:22	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN031	VP5	08/06/2022	21:24	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN032	VP5	01/07/2022	15:14	Snipe	1	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN033	VP4	05/09/2022	20:47	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN034	VP6	06/09/2022	20:48	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN035	VP3	07/09/2022	20:37	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN036	VP2	12/09/2022	19:48	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN037	VP2	12/09/2022	20:46	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN038	VP1	13/09/2022	20:38	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN039	VP5	06/10/2022	06:39	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN040	VP5	06/10/2022	06:47	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN041	VP4	07/10/2022	07:07	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN042	VP4	07/10/2022	07:30	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN043	VP2	20/10/2022	09:25	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN044	VP1	04/11/2022	07:43	Snipe	1	72	0	0	72	0	cutover bog and improved grassland; flying, heading north-west.	CR
SN045	VP1	04/11/2022	10:00	Snipe	1	-	-	-	-	-	cutover bog and scrub; calling	CR
SN046	VP5	09/11/2022	13:15	Snipe	2	-	-	-	-	-	cutover bog; calling	CR
SN047	VP5	09/11/2022	17:25	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN048	VP5	09/11/2022	17:28	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN049	VP3	14/11/2022	16:45	Snipe	1	10	10	0	0	0	scrub and cutover bog; flying	CR
SN050	VP2	15/11/2022	17:26	Snipe	1	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN051	VP2	15/11/2022	17:37	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN052	VP1	16/11/2022	17:16	Snipe	1	-	-	-	-	-	cutover bog and scrub; calling	CR
SN053	VP6	17/11/2022	12:06	Snipe	2	15	15	0	0	0	cutover bog; flying	CR
SN054	VP6	17/11/2022	17:12	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN055	VP6	17/11/2022	17:20	Snipe	1	-	-	-	-	-	improved grassland; calling	CR
SN056	VP4	06/12/2022	08:04	Snipe	1	14	14	0	0	0	cutover bog; flying	CR
SN057	VP4	06/12/2022	08:04	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN058	VP4	06/12/2022	10:24	Snipe	5	21	21	0	0	0	cutover bog; flying	CR
SN059	VP3	08/12/2022	12:15	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN060	VP4	13/01/2023	17:27	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN061	VP2	24/01/2023	17:20	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN062	VP2	24/01/2023	17:42	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN063	VP2	24/01/2023	17:48	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN064	VP2	24/01/2023	18:00	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN065	VP1	27/01/2023	17:48	Snipe	2	-	-	-	-	-	cutover bog; calling	CR
SN066	VP1	27/01/2023	17:54	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN067	VP4	16/02/2023	09:58	Snipe	1	56	5	8	43	0	cutover bog; flying	CR
SN068	VP1	27/02/2023	08:00	Snipe	1	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN069	VP5	03/03/2023	18:44	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN070	VP5	03/03/2023	18:47	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN071	VP5	03/03/2023	18:52	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN072	VP5	03/03/2023	19:00	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN073	VP4	06/03/2023	13:14	Snipe	1	33	33	0	0	0	cutover bog; flying	CR
SN074	VP4	06/03/2023	19:02	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN075	VP6	14/03/2023	19:12	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN076	VP2	30/03/2023	20:30	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN077	VP2	30/03/2023	20:41	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN078	VP5	14/04/2023	07:38	Snipe	1	-	-	-	-	-	cutover bog; calling, breeding call	CR
SN079	VP5	14/04/2023	08:07	Snipe	1	10	10	0	0	0	cutover bog; flying	CR
SN080	VP2	02/05/2023	08:03	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN081	VP5	08/05/2023	21:53	Snipe	1	-	-	-	-	-	cutover bog; calling, drumming repeatdly from one spot up to end of survey at 22:09 pm.	CR
SN082	VP2	16/05/2023	20:33	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN083	VP2	16/05/2023	22:05	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN084	VP2	16/05/2023	22:15	Snipe	1	-	-	-	-	-	cutover bog; calling, drumming	CR
SN085	VP2	16/05/2023	22:23	Snipe	1	-	-	-	-	-	cutover bog; calling, breeding call	CR
SN086	VP4	17/05/2023	22:11	Snipe	1	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN087	VP4	17/05/2023	22:18	Snipe	1	-	-	-	-	-	cutover bog; calling, breeding call heard until 22:21	CR
SN088	VP4	17/05/2023	22:23	Snipe	1	-	-	-	-	-	cutover bog; calling, drumming	CR
SN089	VP2	01/06/2023	06:57	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN090	VP2	02/06/2023	07:24	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN091	VP1	11/07/2023	20:37	Snipe	1	-	-	-	-	-	cutover bog; calling, breeding call	CR
SN092	VP5	01/08/2023	22:09	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN093	VP3	04/08/2023	13:05	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN094	VP5	16/08/2023	21:48	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN095	VP4	04/10/2023	19:37	Snipe	1	16	16	0	0	0	cutover bog; flying/calling	CR
SN096	VP2	12/10/2023	14:00	Snipe	1	5	5	0	0	0	cutover bog; flying	CR
SN097	VP2	12/10/2023	17:21	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN098	VP2	12/10/2023	17:54	Snipe	1	80	5	7	68	0	cutover bog; flying/calling	CR
SN099	VP2	12/10/2023	17:57	Snipe	2	282	0	0	282	0	cutover bog; flying/calling	CR
SN100	VP2	12/10/2023	18:01	Snipe	1	42	0	10	32	0	cutover bog; flying/calling	CR
SN101	VP2	12/10/2023	19:07	Snipe	1	55	2	2	51	0	cutover bog; flying/calling	CR
SN102	VP2	12/10/2023	19:07	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN103	VP2	12/10/2023	19:12	Snipe	1	32	14	18	0	0	cutover bog; flying/calling	CR
SN104	VP2	12/10/2023	19:15	Snipe	2	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN105	VP2	12/10/2023	19:21	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN106	VP3	16/10/2023	19:07	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN107	VP6	17/10/2023	13:40	Snipe	2	68	7	6	55	0	cutover bog; flying	CR
SN108	VP5	15/11/2023	08:05	Snipe	3	31	31	0	0	0	cutover bog; flying	CR
SN109	VP2	16/11/2023	09:47	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN110	VP6	12/12/2023	16:58	Snipe	2	-	-	-	-	-	cutover bog; calling	CR
SN111	VP6	12/12/2023	17:03	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN112	VP6	12/12/2023	17:07	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN113	VP3	13/12/2023	14:34	Snipe	1	10	10	0	0	0	cutover bog; flying	CR
SN114	VP3	13/12/2023	17:00	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN115	VP3	13/12/2023	17:02	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN116	VP5	15/12/2023	16:52	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN117	VP5	15/12/2023	16:55	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN118	VP5	15/12/2023	17:00	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN119	VP5	15/12/2023	17:05	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN120	VP4	18/12/2023	14:53	Snipe	1	8	0	0	0	0	cutover bog; flying	CR
SN121	VP4	18/12/2023	16:53	Snipe	2	-	-	-	-	-	cutover bog; calling	CR
SN122	VP4	18/12/2023	17:02	Snipe	1	-	-	-	-	-	cutover bog; calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN123	VP4	18/12/2023	17:10	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN124	VP5	29/01/2024	14:08	Snipe	1	37	7	20	10	0	bogs and scrub/transitional woodland; flying	JD
SN125	VP6	30/01/2024	11:41	Snipe	1	27	5	5	17	0	bogs and scrub/transitional woodland; flying	JD
SN126	VP2	08/02/2024	18:10	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN127	VP1	20/02/2024	16:49	Snipe	2	100	13	17	70	0	cutover bog and scrub/transitional woodland; flying, spooked by walkers	CR
SN128	VP1	20/02/2024	18:29	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN129	VP1	20/02/2024	18:32	Snipe	1	-	-	-	-	-	cutover bog and scrub/transitional woodland; calling	CR
SN130	VP3	21/02/2024	18:33	Snipe	1	-	-	-	-	-	cutover bog; calling	CR
SN131	VP5	27/02/2024	13:09	Snipe	14	29	5	15	9	0	bogs and mixed broadleaved/conifer woodland; flying	JD
SN132	VP5	27/02/2024	13:34	Snipe	1	39	5	10	24	0	mixed broadleaved/conifer woodland and bogs; flying	JD
SN133	VP4	28/02/2024	16:37	Snipe	1	84	4	20	50	10	bogs, scrub/transitional woodland and improved agricultural grassland; flying	JD
SN134	VP3	10/04/2024	20:59	Snipe	1	-	-	-	-	-	cutover bog; calling	CG
SN135	VP6	18/04/2024	20:52	Snipe	4	-	-	-	-	-	cutover bog; calling	NL
SN136	VP5	25/04/2024	16:28	Snipe	1	6	6	0	0	0	cutover bog; flushed by hare	NL
SN137	VP2	29/04/2024	20:14	Snipe	4	-	-	-	-	-	bogs; drumming, number times birds heard drumming but not seen	PDC
SN138	VP2	20/05/2024	06:23	Snipe	1	23	23	0	0	0	bogs; travelling, dropped briefly onto bog near vp, then took off again and dropped again onto bog	PDC
SN139	VP2	20/05/2024	06:25	Snipe	2	-	-	-	-	-	bogs; calling, heard not seen	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN140	VP2	20/05/2024	08:33	Snipe	1	73	0	73	0	0	bogs; drumming	PDC
SN141	VP2	20/05/2024	08:35	Snipe	1	-	-	-	-	-	bogs; drumming, couldn't see it due to the sun	PDC
SN142	VP3	21/05/2024	06:04	Snipe	1	-	-	-	-	-	cutover bog; singing	CG
SN143	VP3	21/05/2024	10:00	Snipe	1	-	-	-	-	-	cutover bog; drumming	CG
SN144	VP1	24/05/2024	04:44	Snipe	2	-	-	-	-	-	cutover bog; drumming	CG
SN145	VP1	18/06/2024	07:51	Snipe	1	-	-	-	-	-	bogs; singing, heard not seen	PDC
SN146	VP1	18/06/2024	08:34	Snipe	1	51	0	51	0	0	bogs and scrub/transitional woodland; drumming, came up from bog, then dropped back onto bog	PDC
SN147	VP2	19/06/2024	06:37	Snipe	2	-	-	-	-	-	bogs; calling, heard not seen	PDC
SN148	VP2	19/06/2024	07:30	Snipe	1	-	-	-	-	-	bogs; calling	PDC
SN149	VP2	19/06/2024	08:27	Snipe	1	35	0	35	0	0	cutover bog; flying, drumming, landed back on bog	PDC
SN150	VP1	10/07/2024	07:19	Snipe	1	-	-	-	-	-	bogs; calling, heard not seen	PDC
SN151	VP2	11/07/2024	07:22	Snipe	1	-	-	-	-	-	bogs; calling, heard not seen	PDC
SN152	VP2	11/07/2024	08:08	Snipe	1	525	0	525	0	0	bogs; drumming	PDC
SN153	VP2	11/07/2024	08:09	Snipe	1	-	-	-	-	-	bogs; calling, heard calling whilst previous snipe was drumming	PDC
SN154	VP3	15/07/2024	07:53	Snipe	2	-	-	-	-	-	bogs; calling, heard not seen	PDC
SN155	VP5	19/07/2024	08:14	Snipe	1	5	0	5	0	0	cutover bog; chipping	KS
SN156	VP1	05/09/2024	08:03	Snipe	1	8	8	0	0	0	bogs; flushed, flushed from beside the vp. it had ignored my presence for the previous 2 hours. dropped into field behind vp.	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SN157	VP5	19/09/2024	10:27	Snipe	1	-	-	-	-	-	bogs; calling, heard not seen	PDC
SN158	VP4	16/10/2024	19:04	Snipe	1	9	9	0	0	0	cutover bog; travelling, calling	CC
SN159	VP3	24/10/2024	18:47	Snipe	1	8	8	0	0	0	cutover bog; travelling, lost quickly getting too dark to see	CC
SN160	VP6	31/10/2024	13:25	Snipe	1	26	26	0	0	0	cutover bog; travelling, calling	CC
SN161	VP4	23/01/2025	12:05	Snipe	1	14	14	0	0	0	cutover bog; travelling, calling, flushed by buzzard	CC
SN162	VP1	14/01/2025	07:45	Snipe	1	-	-	-	-	-	cutover bog; calling, heard only	ZE
SN163	VP4	19/02/2025	18:27	Snipe	3	-	-	-	-	-	cutover bog; calling, emerging	CC
SN164	VP1	11/02/2025	18:04	Snipe	1	-	-	-	-	-	cutover bog; calling, heard only	ZE
SN165	VP6	20/03/2025	08:41	Snipe	1	8	8	0	0	0	cutover bog; travelling, flushed	CC

Table 14-2 Snipe Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN001	22/04/2021	14:40	-	Snipe	1	cutover bog, drainage ditches and scrub; flushed, calling in flight (suitable nesting habitat; possible breeder)	TR
SN002	14/05/2021	14:31	-	Snipe	1	drainage ditches and cutover bog; flushed, flushed, (suitable nesting habitat; possible breeder)	TR
SN003	10/05/2022	15:49	-	Snipe	1	cutover bog and scrub; flying (suitable nesting habitat; possible breeder)	CR
SN004	02/06/2022	22:52	-	Snipe	1	improved grassland; calling, heard calling (suitable nesting habitat; possible breeder)	CR
SN005	04/04/2023	15:15	-	Snipe	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
SN006	04/04/2023	18:30	-	Snipe	1	depositing/lowland rivers; calling (suitable nesting habitat; possible breeder)	CR
SN007	06/04/2023	13:41	-	Snipe	3	cutover bog and highly modified/non-native woodland; flying (suitable nesting habitat; possible breeder)	CR
SN008	06/04/2023	14:40	-	Snipe	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
SN009	27/06/2023	17:00	-	Snipe	1	cutover bog; drumming (courtship and display; probable breeding)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN010	27/06/2023	18:56	-	Snipe	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
SN011	28/06/2023	14:50	-	Snipe	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
SN012	23/04/2024	07:36	T2	Snipe	1	bogs; singing, heard not seen (suitable nesting habitat; possible breeder)	PDC
SN013	24/04/2024	10:40	T3	Snipe	1	bogs and improved agricultural grassland; flushed (suitable nesting habitat; possible breeder)	PDC
SN014	28/05/2024	07:50	T2	Snipe	2	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
SN015	28/05/2024	07:50	T2	Snipe	1	bogs; travelling, came up with previous 2 snipe, but split off and dropped back to bog (suitable nesting habitat; possible breeder)	PDC
SN016	28/05/2024	07:53	T2	Snipe	1	bogs; travelling (suitable nesting habitat; possible breeder)	PDC
SN017	29/05/2024	06:42	T3	Snipe	1	bogs; calling, heard not seen (suitable nesting habitat; possible breeder)	PDC
SN018	29/05/2024	06:42	T3	Snipe	1	bogs; calling, heard not seen (suitable nesting habitat; possible breeder)	PDC
SN019	29/05/2024	08:46	T3	Snipe	2	bogs; drumming, calling (suitable nesting habitat; possible breeder)	PDC
SN020	29/05/2024	08:48	T3	Snipe	1	bogs; drumming (suitable nesting habitat; possible breeder)	PDC
SN021	25/06/2024	08:38	T2	Snipe	2	bogs; drumming (suitable nesting habitat; possible breeder)	PDC
SN022	26/06/2024	06:30	T3	Snipe	1	bogs; calling (suitable nesting habitat; possible breeder)	PDC
SN023	26/06/2024	08:07	T3	Snipe	2	bogs; drumming (suitable nesting habitat; possible breeder)	PDC
SN024	26/06/2024	08:08	T3	Snipe	1	bogs and scrub/transitional woodland; drumming (suitable nesting habitat; possible breeder)	PDC
SN025	26/06/2024	08:12	T3	Snipe	2	bogs; travelling, dropped onto bog (suitable nesting habitat; possible breeder)	PDC
SN026	26/06/2024	08:13	T3	Snipe	1	bogs; drumming (suitable nesting habitat; possible breeder)	PDC
SN027	26/06/2024	08:14	T3	Snipe	2	bogs; drumming (suitable nesting habitat; possible breeder)	PDC
SN028	26/06/2024	08:21	T3	Snipe	3	bogs and scrub/transitional woodland; travelling, drumming (suitable nesting habitat; possible breeder)	PDC
SN029	26/06/2024	10:41	T3	Snipe	2	bogs, scrub/transitional woodland and highly modified/non-native woodland; drumming (suitable nesting habitat; possible breeder)	PDC
SN030	26/06/2024	10:42	T3	Snipe	1	bogs and conifer plantation; drumming (suitable nesting habitat; possible breeder)	PDC
SN031	26/06/2024	10:44	T3	Snipe	1	bogs and highly modified/non-native woodland; drumming (suitable nesting habitat; possible breeder)	PDC
SN032	26/06/2024	10:46	T3	Snipe	1	bogs; drumming (suitable nesting habitat; possible breeder)	PDC

Table 14-3 Snipe Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN001	16/11/2020	10:35	-	Snipe	1	cutover bog; flying, flushed by observer (wintering)	JH
SN002	16/11/2020	10:38	-	Snipe	2	cutover bog; travelling, flushed by observer (wintering)	JH
SN003	16/11/2020	10:48	-	Snipe	2	cutover bog; travelling, flushed by observer (wintering)	JH
SN004	16/11/2020	10:57	-	Snipe	1	cutover bog; travelling, flushed by observer (wintering)	JH
SN005	11/02/2021	10:56	-	Snipe	1	cutover bog; flying, flushed by observer (wintering)	JH
SN006	13/10/2021	11:00	-	Snipe	1	cutover bog; flying/calling, observed heading north. (wintering)	CR
SN007	13/10/2021	16:06	-	Snipe	1	cutover bog; flying/calling, flushed (wintering)	CR
SN008	13/10/2021	16:10	-	Snipe	1	cutover bog; flying/calling, flushed (wintering)	CR
SN009	13/10/2021	16:11	-	Snipe	1	cutover bog; flying/calling, flushed (wintering)	CR
SN010	13/10/2021	16:28	-	Snipe	2	cutover bog; flying/calling, pair observed heading south before descending into the bog. (wintering)	CR
SN011	15/10/2021	15:09	-	Snipe	1	cutover bog; flying/calling, flushed (wintering)	CR
SN012	12/01/2022	12:47	-	Snipe	1	cutover bog and scrub; flying/calling (wintering)	CR
SN013	12/01/2022	12:50	-	Snipe	2	scrub and cutover bog; flying/calling (wintering)	CR
SN014	13/01/2022	14:05	-	Snipe	1	cutover bog; flying (wintering)	CR
SN015	13/01/2022	14:06	-	Snipe	2	cutover bog; flying (wintering)	CR
SN016	18/01/2022	14:17	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN017	22/02/2022	12:00	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN018	22/02/2022	14:30	-	Snipe	2	cutover bog; flying (wintering)	CR
SN019	22/02/2022	14:33	-	Snipe	2	cutover bog and scrub; flying (wintering)	CR
SN020	22/02/2022	15:15	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN021	23/02/2022	11:05	-	Snipe	1	cutover bog; flying (wintering)	CR
SN022	23/02/2022	12:10	-	Snipe	1	cutover bog; flying (wintering)	CR
SN023	23/02/2022	12:32	-	Snipe	2	cutover bog; flying (wintering)	CR
SN024	23/02/2022	13:40	-	Snipe	1	cutover bog and improved grassland; flying, male kestrel heading north west. (wintering)	CR
SN025	23/02/2022	15:10	-	Snipe	2	cutover bog; flying (wintering)	CR
SN026	21/03/2022	14:37	-	Snipe	3	cutover bog; flying (wintering)	CR
SN027	22/03/2022	16:23	-	Snipe	1	cutover bog; flying (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN028	22/03/2022	16:47	-	Snipe	1	cutover bog; flying (wintering)	CR
SN029	23/03/2022	15:30	-	Snipe	2	cutover bog and scrub; flying (wintering)	CR
SN030	23/03/2022	16:00	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN031	23/03/2022	16:05	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN032	24/03/2022	15:09	-	Snipe	2	cutover bog; flying (wintering)	CR
SN033	24/03/2022	15:15	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN034	24/03/2022	15:45	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN035	24/03/2022	15:47	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN036	24/03/2022	16:10	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN037	05/10/2022	16:44	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN038	05/10/2022	16:53	-	Snipe	1	cutover bog and scrub; flying (wintering)	CR
SN039	13/10/2022	18:50	-	Snipe	1	improved grassland; calling (wintering)	CR
SN040	22/11/2022	13:29	-	Snipe	1	cutover bog and improved grassland; flying (wintering)	CR
SN041	25/11/2022	12:40	-	Snipe	1	cutover bog; flying/calling (wintering)	CR
SN042	23/01/2023	15:03	-	Snipe	1	improved grassland; flying (wintering)	CR
SN043	23/01/2023	15:05	-	Snipe	1	improved grassland; flying, heading south (wintering)	CR
SN044	30/01/2023	15:50	-	Snipe	1	cutover bog; flying (wintering)	CR
SN045	30/01/2023	15:53	-	Snipe	1	cutover bog; flying (wintering)	CR
SN046	30/01/2023	16:02	-	Snipe	1	cutover bog; flying (wintering)	CR
SN047	16/03/2023	09:53	-	Snipe	3	cutover bog; flying (wintering)	CR
SN048	16/03/2023	09:55	-	Snipe	2	cutover bog; flying (wintering)	CR
SN049	16/03/2023	09:58	-	Snipe	2	cutover bog; flying (wintering)	CR
SN050	16/03/2023	10:10	-	Snipe	1	cutover bog; flying (wintering)	CR
SN051	16/03/2023	10:12	-	Snipe	1	cutover bog; flying (wintering)	CR
SN052	16/03/2023	10:28	-	Snipe	1	cutover bog; flying (wintering)	CR
SN053	28/03/2023	14:30	-	Snipe	1		CR
SN054	28/03/2023	14:51	-	Snipe	1	cutover bog; flying (wintering)	CR
SN055	03/10/2023	16:30	-	Snipe	1	cutover bog; flying (wintering)	CR
SN056	05/10/2023	14:46	-	Snipe	2	cutover bog; flying/calling (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN057	05/10/2023	15:40	-	Snipe	1	cutover bog; flying (wintering)	CR
SN058	05/10/2023	17:00	-	Snipe	1	cutover bog; flying (wintering)	CR
SN059	05/10/2023	17:25	-	Snipe	1	cutover bog; flying/calling (wintering)	CR
SN060	09/10/2023	15:46	-	Snipe	3	cutover bog; flying (wintering)	CR
SN061	09/10/2023	17:14	-	Snipe	1	cutover bog; flying/calling (wintering)	CR
SN062	07/11/2023	14:21	-	Snipe	1	cutover bog; flying (wintering)	CR
SN063	07/11/2023	14:37	-	Snipe	1	cutover bog and improved grassland; flying/calling (wintering)	CR
SN064	13/11/2023	13:39	-	Snipe	2	cutover bog; flying (wintering)	CR
SN065	13/11/2023	14:05	-	Snipe	2	cutover bog; flying (wintering)	CR
SN066	13/11/2023	14:06	-	Snipe	2	cutover bog; flying (wintering)	CR
SN067	13/11/2023	14:18	-	Snipe	1	cutover bog; flying (wintering)	CR
SN068	14/11/2023	13:57	-	Snipe	1	cutover bog; flying (wintering)	CR
SN069	14/11/2023	14:19	-	Snipe	1	cutover bog; flying/calling (wintering)	CR
SN070	29/11/2023	15:40	-	Snipe	4	cutover bog; flying (wintering)	CR
SN071	29/11/2023	15:48	-	Snipe	1	cutover bog; flying (wintering)	CR
SN072	29/11/2023	15:53	-	Snipe	1	cutover bog; flying (wintering)	CR
SN073	29/11/2023	17:02	-	Snipe	1	cutover bog; calling (wintering)	CR
SN074	11/01/2024	12:55	-	Snipe	1	cutover bog; flying (wintering)	CR
SN075	12/01/2024	15:37	-	Snipe	1	cutover bog; flying (wintering)	CR
SN076	26/01/2024	14:00	-	Snipe	1	improved grassland; flying (wintering)	CR
SN077	12/03/2024	16:31	-	Snipe	2	cutover bog; flying, calling (wintering)	CR
SN078	12/03/2024	16:31	-	Snipe	2	cutover bog; flying, calling (wintering)	CR
SN079	13/03/2024	09:22	-	Snipe	1	cutover bog; flying, calling (wintering)	CR
SN080	13/03/2024	09:53	-	Snipe	1	cutover bog; flying (wintering)	CR
SN081	13/03/2024	10:29	-	Snipe	1	cutover bog; drumming (courtship and display; probable breeding)	CR
SN082	13/03/2024	10:30	-	Snipe	1	cutover bog; flying, landing (wintering)	CR
SN083	21/03/2024	14:22	-	Snipe	1	cutover bog and scrub/transitional woodland; flying (wintering)	#REF!
SN084	21/03/2024	14:34	-	Snipe	1	cutover bog and scrub/transitional woodland; flying (wintering)	CR
SN085	27/03/2024	13:33	-	Snipe	2	cutover bog; flying, calling (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SN086	22/10/2024	11:52	T1	Snipe	1	cutover bog; calling, heard not seen, sounded like it had been predated (wintering)	CC
SN087	22/10/2024	11:57	T1	Snipe	1	treelines and cutover bog; travelling (wintering)	CC
SN088	05/11/2024	11:49	T1	Snipe	1	cutover bog; travelling, flushed (wintering)	CC
SN089	05/11/2024	12:21	T1	Snipe	1	cutover bog; travelling, flushed by surveyor (wintering)	CC
SN090	05/11/2024	12:42	T1	Snipe	1	cutover bog; travelling (wintering)	CC
SN091	05/11/2024	13:06	T1	Snipe	1	cutover bog; travelling, flushed (wintering)	CC
SN092	05/11/2024	13:44	T1	Snipe	1	cutover bog; travelling, flushed (wintering)	CC
SN093	06/11/2024	11:48	T2	Snipe	1	cutover bog; travelling, flushed (wintering)	CC
SN094	06/11/2024	13:27	T2	Snipe	1	cutover bog; travelling (wintering)	CC
SN095	13/01/2025	09:35	T2	Snipe	1	cutover bog; flushed (wintering)	ZE
SN096	13/01/2025	09:51	T2	Snipe	2	cutover bog; flushed (wintering)	ZE
SN097	13/01/2025	11:32	T1	Snipe	2	cutover bog; flying (wintering)	ZE

Table 14-4 Snipe Waterbird Distribution and Abundance Survey Data

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN001	Drinagh	15/03/2021	09:15	Snipe	2	lakes and ponds and swamps; in flight	PT
SN002	Finnamore Lakes	23/04/2021	14:43	Snipe	1	reed and large sedge swamps and other artificial lakes and ponds; alarmed flying, snipe alarmed by my presence flew to other side of lake.	SOB
SN003	Noggusduff	27/05/2021	15:30	Snipe	1	lakes and ponds and cutover bog; flying	JG
SN004	Noggusduff	27/05/2021	15:33	Snipe	1	acid oligotrophic lakes and cutover bog; feeding	JG
SN005	Boora	27/05/2021	19:24	Snipe	1	cutover bog and acid oligotrophic lakes; flying, flushed	JG
SN006	Finnamore Lakes	01/09/2021	15:00	Snipe	3	reed and large sedge swamps and other artificial lakes and ponds; alarmed flight, snipe flushed out as i was at shoreline scanning across lake. joined 2 other snipe in air.	SOB
SN007	Tumduff	10/11/2021	13:38	Snipe	6	lakes and ponds; flying, heading south west	CR
SN008	Drinagh	10/11/2021	15:38	Snipe	2	cutover bog, lakes and ponds and highly modified/non-native woodland; flying	CR
SN009	Cloghan Lake	11/04/2024	13:22	Snipe	1	lakes and ponds; flushed	NL
SN010	Finnamore Lakes	30/05/2024	10:33	Snipe	1	lakes and ponds; calling	NL
SN011	Clara Bog	24/09/2024	09:37	Snipe	1	raised bog; flushed	NL
SN012	South of Lough Boora	29/01/2025	13:07	Snipe	1	improved agricultural grassland; foraging, with golden plover and lapwing	ZE
SN013	Turraun Nature Park	18/02/2025	15:27	Snipe	2	lakes and ponds and swamps; flushed	ZE
SN014	Turraun Nature Park	05/03/2025	15:33	Snipe	1	swamps and lakes and ponds; flushed	ZE
SN015	Finnamore Lakes	19/03/2025	15:21	Snipe	5	lakes and ponds, swamps and semi-natural grassland; flushed	ZE
SN016	Turraun Nature Park	19/03/2025	16:09	Snipe	1	lakes and ponds and swamps; flying, calling	ZE

Table 14-5 Snipe Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN001	Waterbird Distribution and Abundance Survey; Noggus	27/11/2020	14:13	Snipe	7	acid oligotrophic lakes and cutover bog; travelling	JH
SN002	Breeding Woodcock Survey; on site, E	31/05/2021	22:29	Snipe	1	semi-natural grassland and drainage ditches; drumming display, one pair breeding	TR
SN003	Breeding Woodcock Survey; Lemanghan bog	18/05/2021	22:15	Snipe	1	cutover bog; calling	JG
SN004	Breeding Woodcock Survey; Lemanaghan bog north	03/06/2021	22:25	Snipe	2	cutover bog and mixed broadleaved woodland; chipping, drumming	JG
SN005	Breeding Woodcock Survey; Transect 4 Lemabghan bog east	23/06/2021	21:43	Snipe	1	cutover bog; drumming	JG
SN006	Breeding Raptor Survey; brvp1	05/07/2021	19:31	Snipe	1	cutover bog; drumming	JG
SN007	Vantage Point Survey; Near industrial railway	02/09/2021	14:50	Snipe	1	cutover bog, drainage ditches and scrub; alarmed flight, on way to vp	SOB
SN008	Vantage Point Survey; VP2	02/11/2021	11:24	Snipe	1	cutover bog; flying/calling, flushed; last seen heading north before descending into the bog.	CR
SN009	Vantage Point Survey; Near VP6	08/11/2021	11:10	Snipe	1	cutover bog; flying/calling, flushed whilst walking to vp6.	CR
SN010	Vantage Point Survey; VP6	13/12/2021	14:20	Snipe	1	cutover bog; flying	CR
SN011	Breeding Woodcock Survey; T3	20/06/2022	21:45	Snipe	1	cutover bog; flying, heading north west.	CR
SN012	Breeding Woodcock Survey; T3	20/06/2022	22:43	Snipe	2	cutover bog; calling, two birds heard drumming for several minutes.	CR
SN013	Breeding Woodcock Survey; T3	20/06/2022	22:45	Snipe	1	cutover bog and scrub; flying	CR
SN014	Breeding Woodcock Survey; T3	20/06/2022	22:53	Snipe	1	cutover bog; calling, heard drumming	CR
SN015	Breeding Woodcock Survey; T3	30/06/2022	22:40	Snipe	1	cutover bog; calling	CR
SN016	Breeding Woodcock Survey; T3	30/06/2022	22:50	Snipe	2	cutover bog; calling	CR
SN017	Vantage Point Survey; VP4	16/08/2022	14:05	Snipe	1	cutover bog; flying, observed heading south.	CR
SN018	Waterbird Distribution and Abundance Survey; Derrybrat	15/09/2022	15:23	Snipe	1	turloughs; flying	CR
SN019	Waterbird Distribution and Abundance Survey; Lough Boora	30/09/2022	16:11	Snipe	1	lakes and ponds; roosting	CR
SN020	Hen Harrier Roost Survey; HHVP1	10/10/2022	18:08	Snipe	17	improved grassland; flying, flock heading west.	CR
SN021	Hen Harrier Roost Survey; HHVP1	10/10/2022	19:24	Snipe	1	improved grassland; calling	CR
SN022	Waterbird Distribution and Abundance Survey; Noggusduff	11/10/2022	13:11	Snipe	17	cutover bog; flying, flock of 17 heading north.	CR

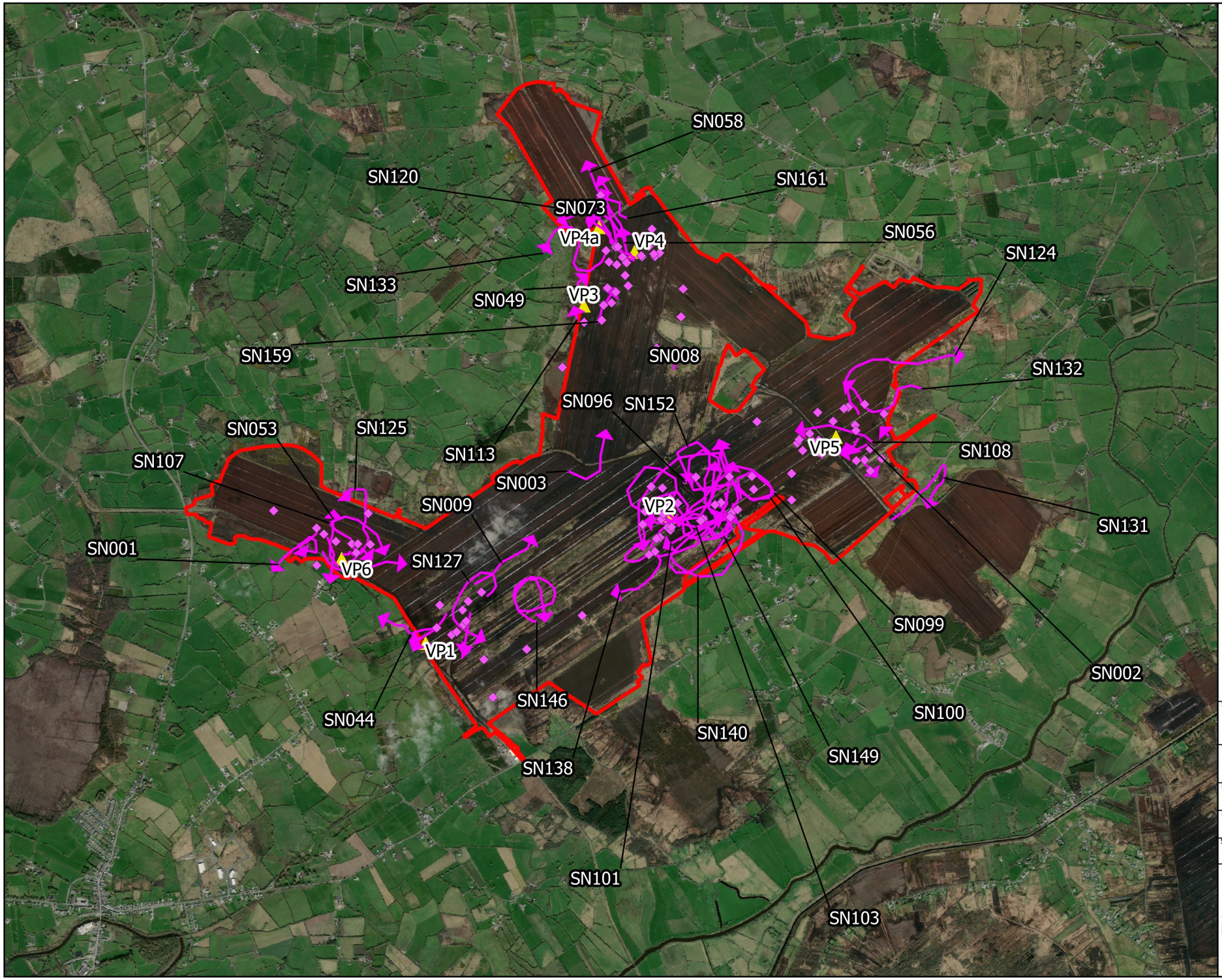
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN023	Waterbird Distribution and Abundance Survey; Turruan Nature Park	11/11/2022	17:12	Snipe	1	lakes and ponds; flying	CR
SN024	Vantage Point Survey; VP1	16/11/2022	11:27	Snipe	1	cutover bog and scrub; flying	CR
SN025	Hen Harrier Roost Survey; HHVP4	22/11/2022	18:10	Snipe	1	cutover bog; calling	CR
SN026	Waterbird Distribution and Abundance Survey; Noggusduff	23/11/2022	12:42	Snipe	1	turloughs; flying	CR
SN027	Waterbird Distribution and Abundance Survey; Drinagh	23/11/2022	17:01	Snipe	2	lakes and ponds and cutover bog; flying	CR
SN028	Hen Harrier Roost Survey; HHVP2	25/11/2022	16:58	Snipe	2	cutover bog; calling	CR
SN029	Hen Harrier Roost Survey; HHVP2	25/11/2022	17:02	Snipe	1	cutover bog; calling	CR
SN030	Hen Harrier Roost Survey; HHVP2	25/11/2022	17:10	Snipe	1	cutover bog; calling	CR
SN031	Hen Harrier Roost Survey; HHVP5	05/12/2022	16:55	Snipe	1	improved grassland; calling	CR
SN032	Waterbird Distribution and Abundance Survey; Lough Boora	10/01/2023	15:57	Snipe	1	lakes and ponds; flying	CR
SN033	Waterbird Distribution and Abundance Survey; Lough Boora	10/01/2023	16:00	Snipe	5	lakes and ponds; flying	CR
SN034	Hen Harrier Roost Survey; HHVP5	16/01/2023	17:20	Snipe	1	improved grassland; flying	CR
SN035	Hen Harrier Roost Survey; HHVP5	09/02/2023	18:05	Snipe	1	cutover bog; calling	CR
SN036	Hen Harrier Roost Survey; HHVP5	09/02/2023	18:11	Snipe	1	cutover bog; calling	CR
SN037	Hen Harrier Roost Survey; HHVP4	02/03/2023	18:45	Snipe	1	improved grassland; calling	CR
SN038	Hen Harrier Roost Survey; Near VP3	02/03/2023	19:02	Snipe	1	cutover bog; calling	CR
SN039	Waterbird Distribution and Abundance Survey; Drinagh	07/03/2023	13:28	Snipe	1	bogs and lakes and ponds; flying	CR
SN040	Hen Harrier Roost Survey; HHVP2	31/03/2023	06:30	Snipe	1	cutover bog; calling, druming call	CR
SN041	Breeding Walkover Survey; North of site near VP2	05/05/2023	21:40	Snipe	1	cutover bog; calling, breeding call	CR
SN042	Breeding Woodcock Survey; HHVP5	11/05/2023	21:35	Snipe	1	cutover bog; calling	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN043	Waterbird Distribution and Abundance Survey; Noggusduff	25/05/2023	17:49	Snipe	1	lakes and ponds; calling	CR
SN044	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:43	Snipe	1	cutover bog; calling, breeding call	CR
SN045	Breeding Woodcock Survey; VP2 area.	07/06/2023	22:44	Snipe	1	cutover bog; calling, drumming	CR
SN046	Breeding Woodcock Survey; VP4	13/06/2023	21:00	Snipe	1	cutover bog; calling, breeding call	CR
SN047	Breeding Woodcock Survey; VP4	13/06/2023	22:52	Snipe	1	cutover bog; calling, drumming	CR
SN048	Breeding Woodcock Survey; VP1 area.	19/06/2023	22:48	Snipe	1	cutover bog; calling	CR
SN049	Breeding Woodcock Survey; North of site near VP5	21/06/2023	21:11	Snipe	1	cutover bog; flying/drumming	CR
SN050	Breeding Woodcock Survey; North of site near VP5	21/06/2023	21:14	Snipe	1	cutover bog; calling, drumming	CR
SN051	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:33	Snipe	1	cutover bog; calling, breeding call	CR
SN052	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:51	Snipe	1	cutover bog; drumming	CR
SN053	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:59	Snipe	1	cutover bog; calling, breeding call	CR
SN054	Breeding Woodcock Survey; PB4	21/06/2023	22:59	Snipe	1	cutover bog; calling, alarm calling in response to long eared owl.	CR
SN055	Breeding Woodcock Survey; VP3	27/06/2023	22:45	Snipe	1	cutover bog; calling, breeding call	CR
SN056	Hen Harrier Roost Survey; hhvp2	09/10/2023	17:58	Snipe	1	cutover bog; calling	CR
SN057	Hen Harrier Roost Survey; hhvp2	09/10/2023	18:40	Snipe	1	cutover bog; calling	CR
SN058	Hen Harrier Roost Survey; hhvp2	09/10/2023	19:24	Snipe	2	cutover bog; calling	CR
SN059	Hen Harrier Roost Survey; hhvp2	07/11/2023	17:30	Snipe	2	cutover bog; calling	CR
SN060	Hen Harrier Roost Survey; hhvp2	07/11/2023	17:31	Snipe	1	cutover bog; calling	CR
SN061	Hen Harrier Roost Survey; hhvp2	07/11/2023	17:35	Snipe	1	cutover bog; calling	CR
SN062	Waterbird Distribution and Abundance Survey; Lough Boora	09/11/2023	13:24	Snipe	1	lakes and ponds; flying	CR
SN063	Hen Harrier Roost Survey; hhvp1	09/11/2023	16:19	Snipe	1	improved grassland; flying	CR
SN064	Hen Harrier Roost Survey; hhvp1	09/11/2023	17:35	Snipe	1	improved grassland; calling	CR
SN065	Hen Harrier Roost Survey; hhvp5	13/11/2023	17:18	Snipe	1	cutover bog and improved grassland; calling	CR
SN066	Hen Harrier Roost Survey; hhvp5	13/11/2023	17:22	Snipe	2	cutover bog and improved grassland; calling	CR
SN067	Hen Harrier Roost Survey; hhvp2	28/11/2023	16:55	Snipe	1	cutover bog; calling	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN068	Hen Harrier Roost Survey; hhvp2	28/11/2023	17:01	Snipe	2	cutover bog; calling	CR
SN069	Hen Harrier Roost Survey; HHVP2	05/12/2023	16:59	Snipe	1	cutover bog; calling	CR
SN070	Waterbird Distribution and Abundance Survey; Lough Boora	08/12/2023	13:50	Snipe	1	lakes and ponds; flying	CR
SN071	Waterbird Distribution and Abundance Survey; Finnamore Lakes	03/01/2024	17:09	Snipe	3	lakes and ponds; calling	CR
SN072	Hen Harrier Roost Survey; HHVP2	08/01/2024	17:13	Snipe	1	cutover bog; calling	CR
SN073	Waterbird Distribution and Abundance Survey; Derrybrat	30/01/2024	13:44	Snipe	2	lakes and ponds; flying	CR
SN074	Hen Harrier Roost Survey; HHVP2	07/02/2024	18:04	Snipe	1	cutover bog; calling	CR
SN075	Waterbird Distribution and Abundance Survey; Tumduff	12/02/2024	18:00	Snipe	1	scrub/transitional woodland; calling, drumming	CR
SN076	Hen Harrier Roost Survey; HHVP2	23/02/2024	18:35	Snipe	1	cutover bog; calling	CR
SN077	Hen Harrier Roost Survey; HHVP2	12/03/2024	19:08	Snipe	1	cutover bog; calling	CR
SN078	Waterbird Distribution and Abundance Survey; Cloghan lake	13/03/2024	13:48	Snipe	1	lakes and ponds; flying	CR
SN079	Hen Harrier Roost Survey; HHVP5	19/03/2024	19:08	Snipe	1	cutover bog; calling	CR
SN080	Hen Harrier Roost Survey; HHVP2	26/03/2024	19:25	Snipe	1	cutover bog; drumming	CR
SN081	Breeding Raptor Survey; BR4	16/04/2024	09:43	Snipe	1	cutover bog; flushed	NL
SN082	Vantage Point Survey; VP5	25/04/2024	21:57	Snipe	1	cutover bog; flushed	NL
SN083	Vantage Point Survey; VP5	25/04/2024	21:58	Snipe	1	cutover bog; flushed	NL
SN084	Vantage Point Survey; VP2	20/05/2024	05:49	Snipe	1	bogs; calling, heard not seen	PDC
SN085	Breeding Woodcock Survey; T2	30/05/2024	22:39	Snipe	1	cutover bog; drumming	PM
SN086	Breeding Woodcock Survey; BWK3	12/06/2024	22:35	Snipe	1	cutover bog and semi-natural woodland; drumming	BC
SN087	Breeding Woodcock Survey; BWK3	12/06/2024	22:48	Snipe	2	cutover bog and semi-natural woodland; flying	BC
SN088	Breeding Woodcock Survey; BWK3	12/06/2024	22:50	Snipe	1	cutover bog and semi-natural woodland; drumming, heard, not seen	BC

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN089	Breeding Woodcock Survey; BWK2	12/06/2024	21:28	Snipe	3	cutover bog; drumming	SD
SN090	Vantage Point Survey; VP2	19/06/2024	11:03	Snipe	1	bogs; calling	PDC
SN091	Breeding Raptor Survey; BR9	20/06/2024	10:04	Snipe	2	scrub/transitional woodland; flying	NL
SN092	Breeding Raptor Survey; BR2	27/06/2024	10:33	Snipe	1	cutover bog; flushed	NL
SN093	Hen Harrier Roost Survey; HHVP7	17/10/2024	19:02	Snipe	1	cutover bog; travelling	CC
SN094	Hen Harrier Roost Survey; HHVP6	30/10/2024	17:34	Snipe	2	lowland blanket bog; travelling	CC
SN095	Hen Harrier Roost Survey; HHVP6	30/10/2024	17:35	Snipe	5	lowland blanket bog; calling, 5 seperate calls heard from around vp loction	CC
SN096	Hen Harrier Roost Survey; HHVP1	05/11/2024	17:39	Snipe	1	lowland blanket bog and improved agricultural grassland; calling, travelling	CC
SN097	Hen Harrier Roost Survey; HHVP 6	27/11/2024	16:14	Snipe	1	lowland blanket bog; calling	CC
SN098	Hen Harrier Roost Survey; HHVP6	28/01/2025	17:46	Snipe	2	bogs; calling, heard only	ZE
SN099	Hen Harrier Roost Survey; HHVP2	29/01/2025	16:33	Snipe	1	bogs; calling, heard only	ZE
SN100	Hen Harrier Roost Survey; HHVP2	29/01/2025	17:49	Snipe	1	bogs; calling, heard only	ZE
SN101	Hen Harrier Roost Survey; HHVP7	06/02/2025	18:12	Snipe	1	bogs; calling, heard only	ZE
SN102	Hen Harrier Roost Survey; HHVP7	06/02/2025	18:22	Snipe	1	bogs; calling, heard only	ZE
SN103	Hen Harrier Roost Survey; HHVP6	18/02/2025	18:15	Snipe	1	bogs; calling, heard only	ZE
SN104	Hen Harrier Roost Survey; HHVP6	18/02/2025	09:28	Snipe	2	bogs; calling, heard only	ZE
SN105	Hen Harrier Roost Survey; HHVP7	05/03/2025	18:48	Snipe	1	bogs; flying, calling	ZE
SN106	Hen Harrier Roost Survey; HHVP7	05/03/2025	18:54	Snipe	2	bogs; calling, heard only	ZE
SN107	Hen Harrier Roost Survey; HHVP7	05/03/2025	19:07	Snipe	1	bogs; calling, heard only	ZE
SN108	Hen Harrier Roost Survey; HHVP2	06/03/2025	18:35	Snipe	1	bogs; flying	ZE
SN109	Hen Harrier Roost Survey; HHVP6	19/03/2025	19:17	Snipe	1	bogs; flying, calling	ZE

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SN110	Hen Harrier Roost Survey; HHVP6	19/03/2025	19:22	Snipe	1	bogs; flying, calling	ZE
SN111	Hen Harrier Roost Survey; HHVP6	19/03/2025	19:27	Snipe	2	bogs; calling, heard only	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title

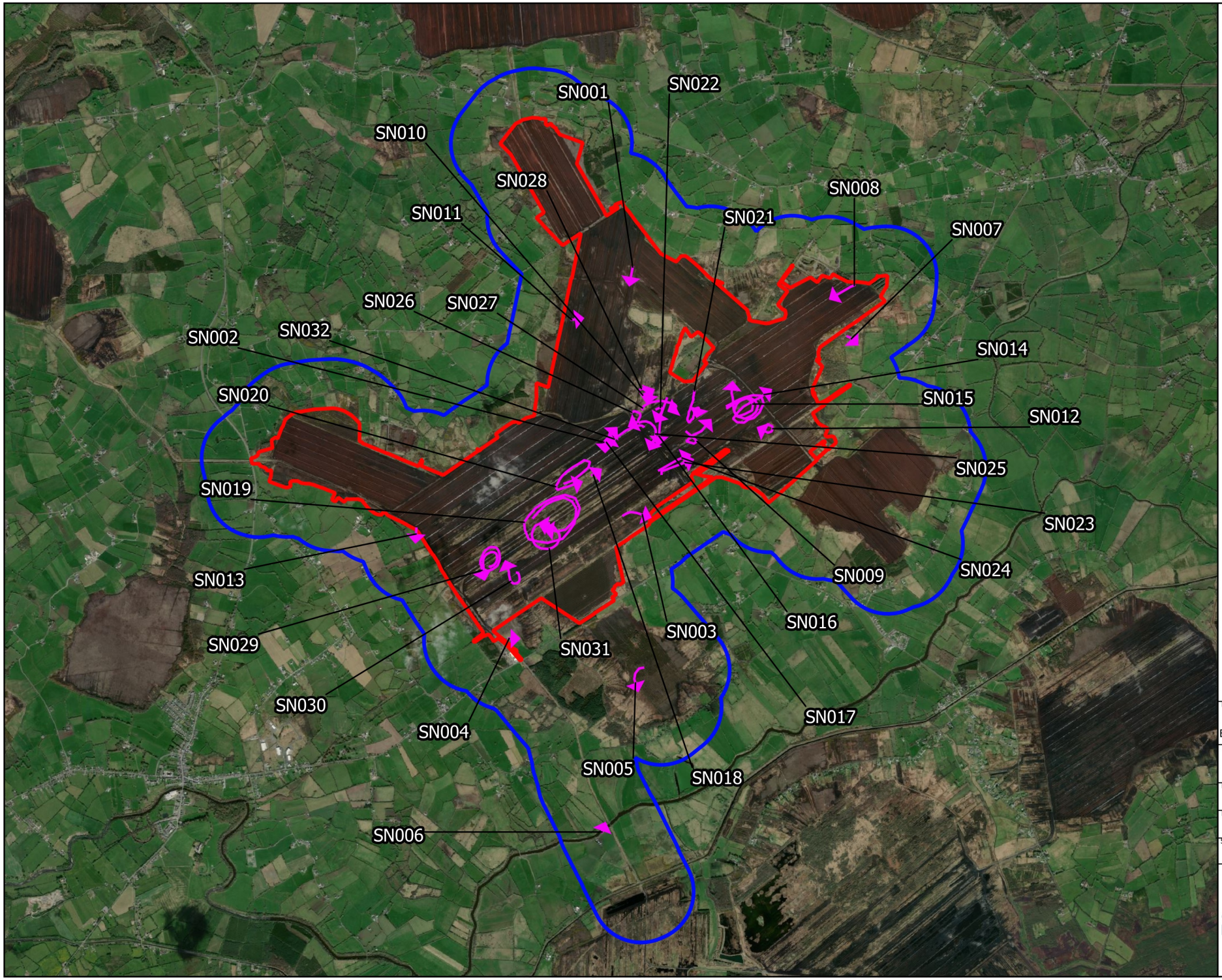
Snipe
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.1
Scale	Date
1:40,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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N

Drawing Title

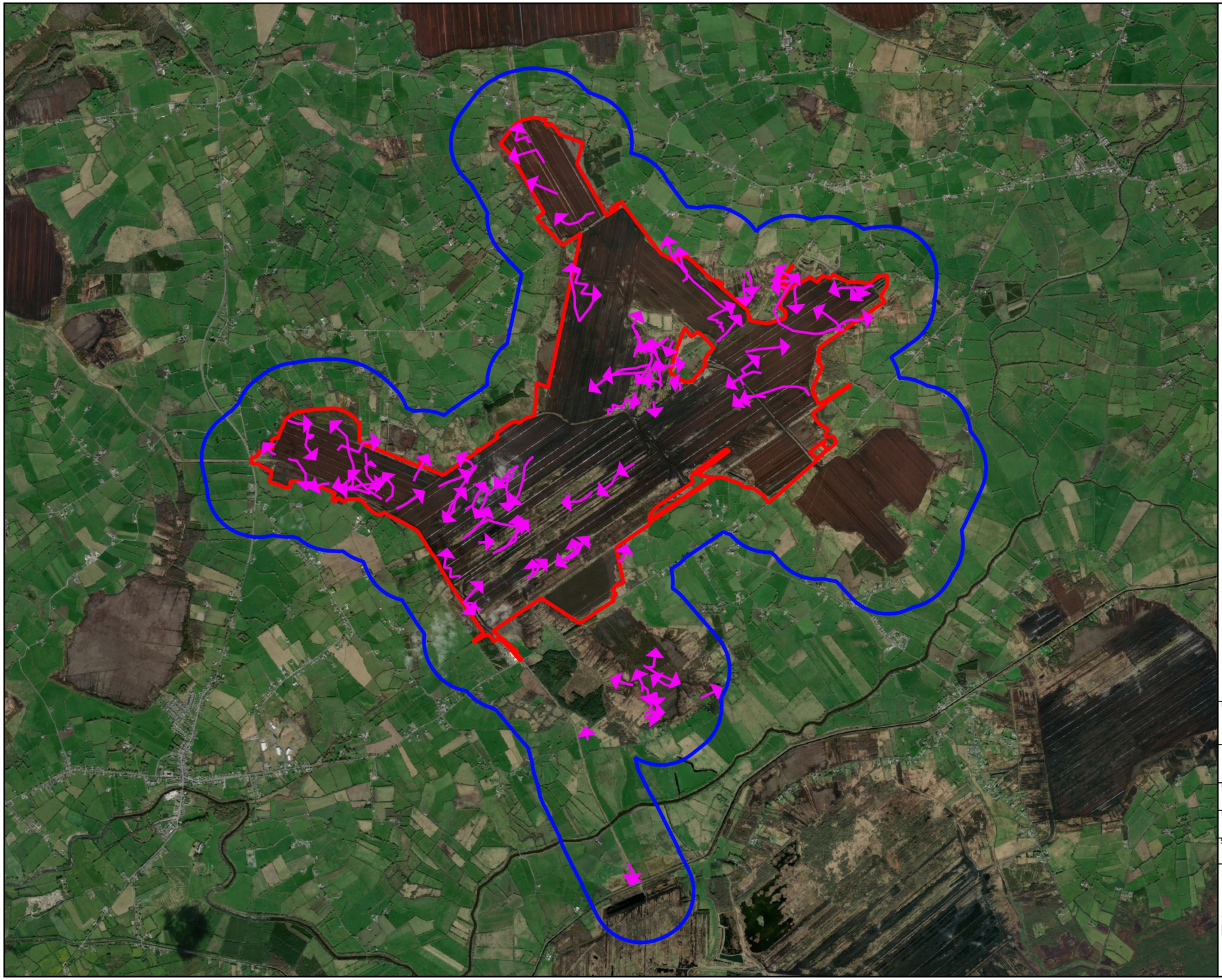
Snipe
Breeding Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.2
Scale	Date
1:50,000	17.07.2025

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Drawing Title

Snipe
Winter Walkover Survey Observations

Project Title

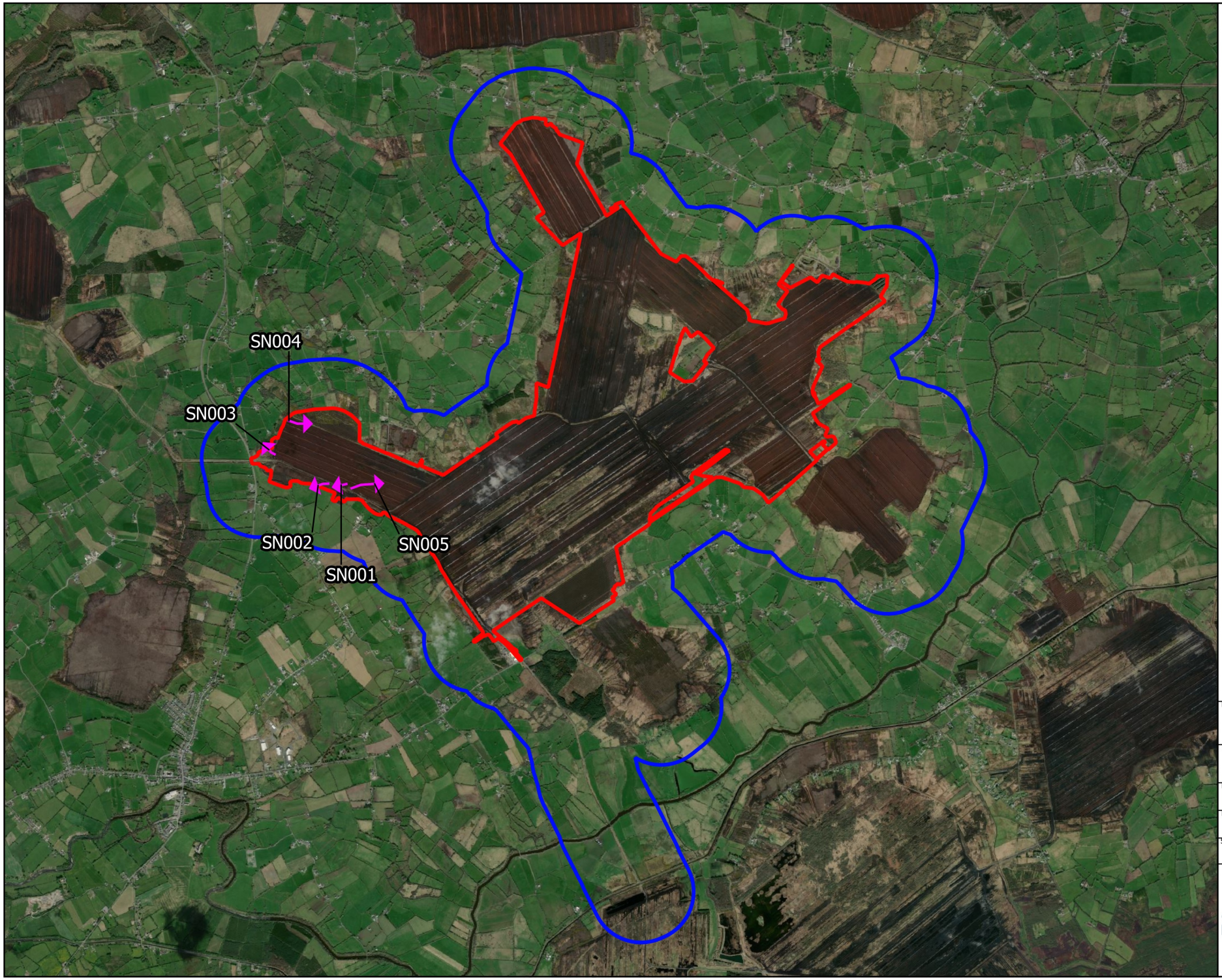
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.3
Scale	Date
1:50,000	17.07.2025

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Observations of Snipe from Winter Walkover Surveys have been further divided across the following Figures in order to improve readability:

- Figure 14-3a – Snipe Winter Walkover Survey Data – Winter Season 2020/2021
- Figure 14-3b – Snipe Winter Walkover Survey Data – Winter Season 2021/2022
- Figure 14-3c – Snipe Winter Walkover Survey Data – Winter Season 2022/2023
- Figure 14-3d – Snipe Winter Walkover Survey Data – Winter Season 2023/2024
- Figure 14-3e – Snipe Winter Walkover Survey Data – Winter Season 2024/2025



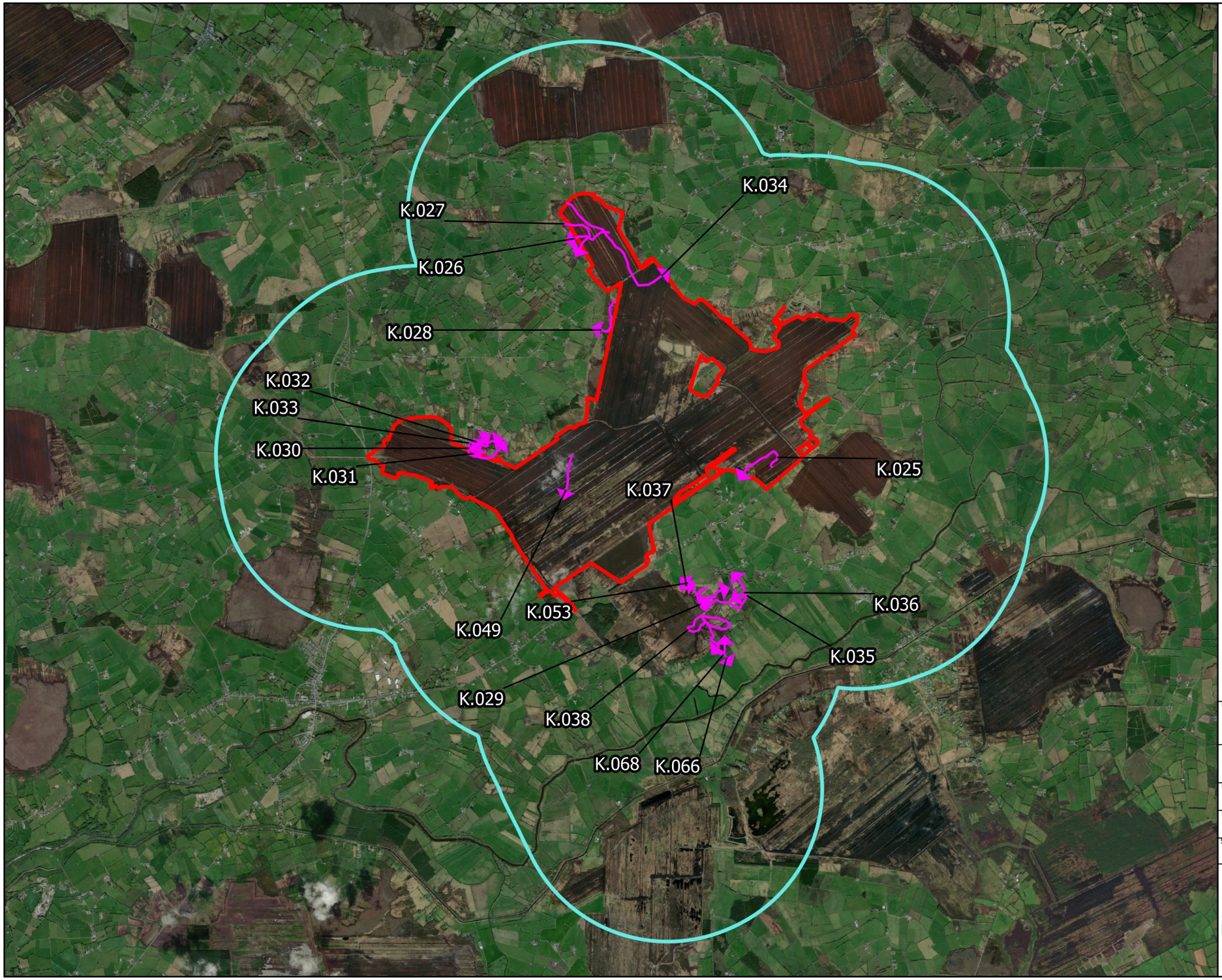
Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Snipe Observations Winter 2020/21 Winter Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 14.3a
Scale: 1:50,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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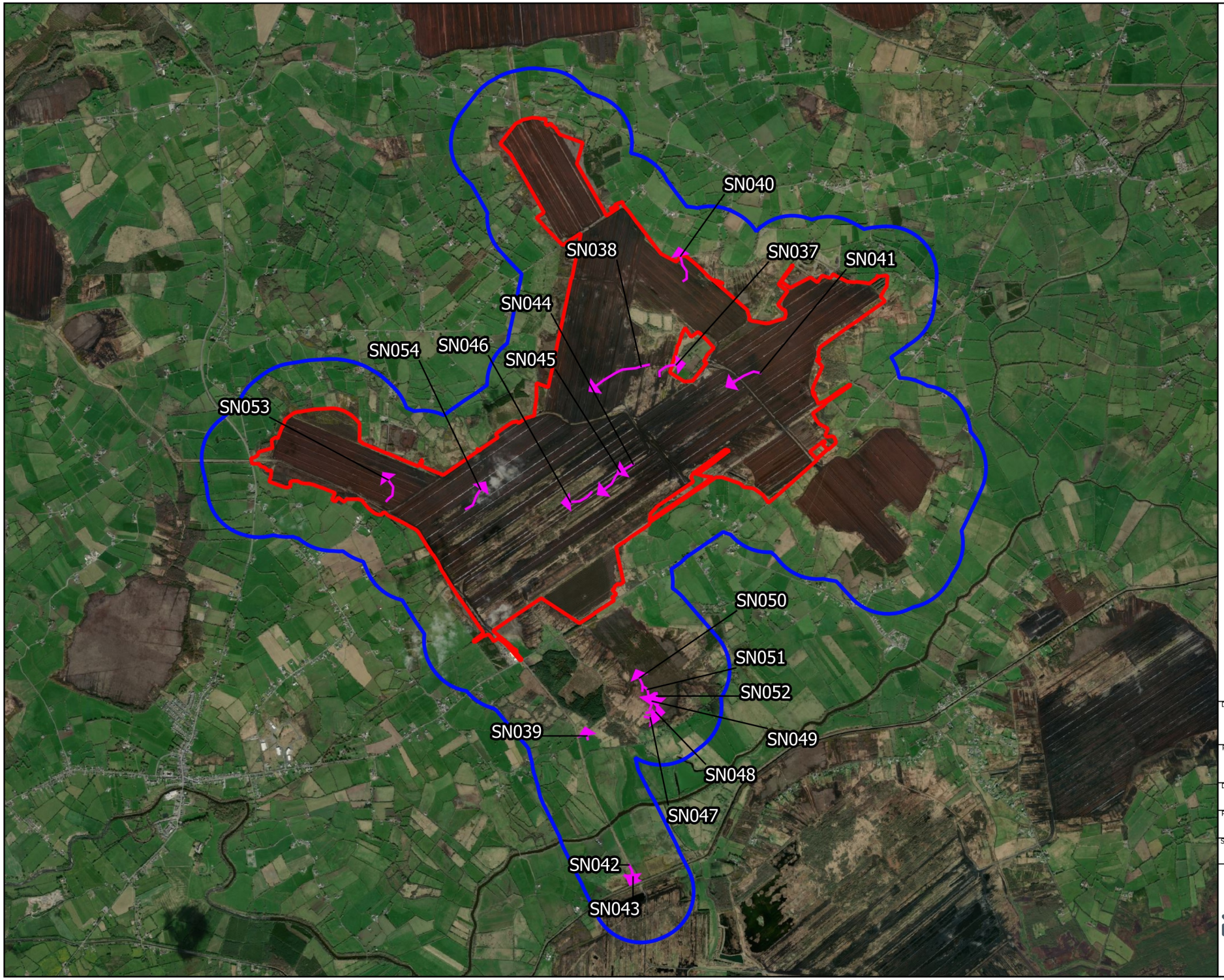
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Drawing Title
Kestrel Observations 2022
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 13.3b
Scale	Date
1:65,000	17.07.2025

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Map Legend

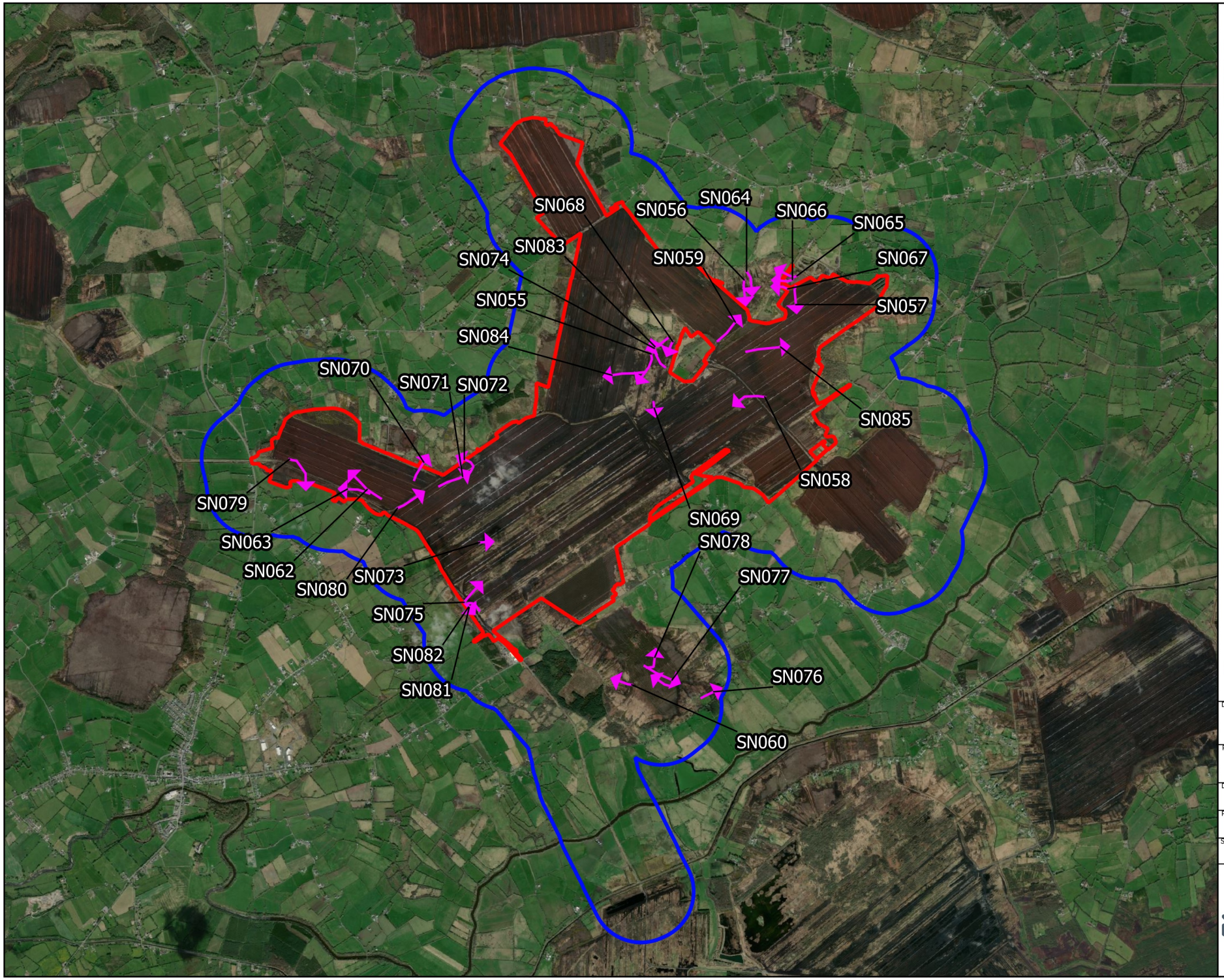
- Application Site Boundary
- Survey Area
- Flight Observation

N

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Drawing Title	Snipe Observations Winter 2022/23 Winter Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 14.3c
Scale: 1:50,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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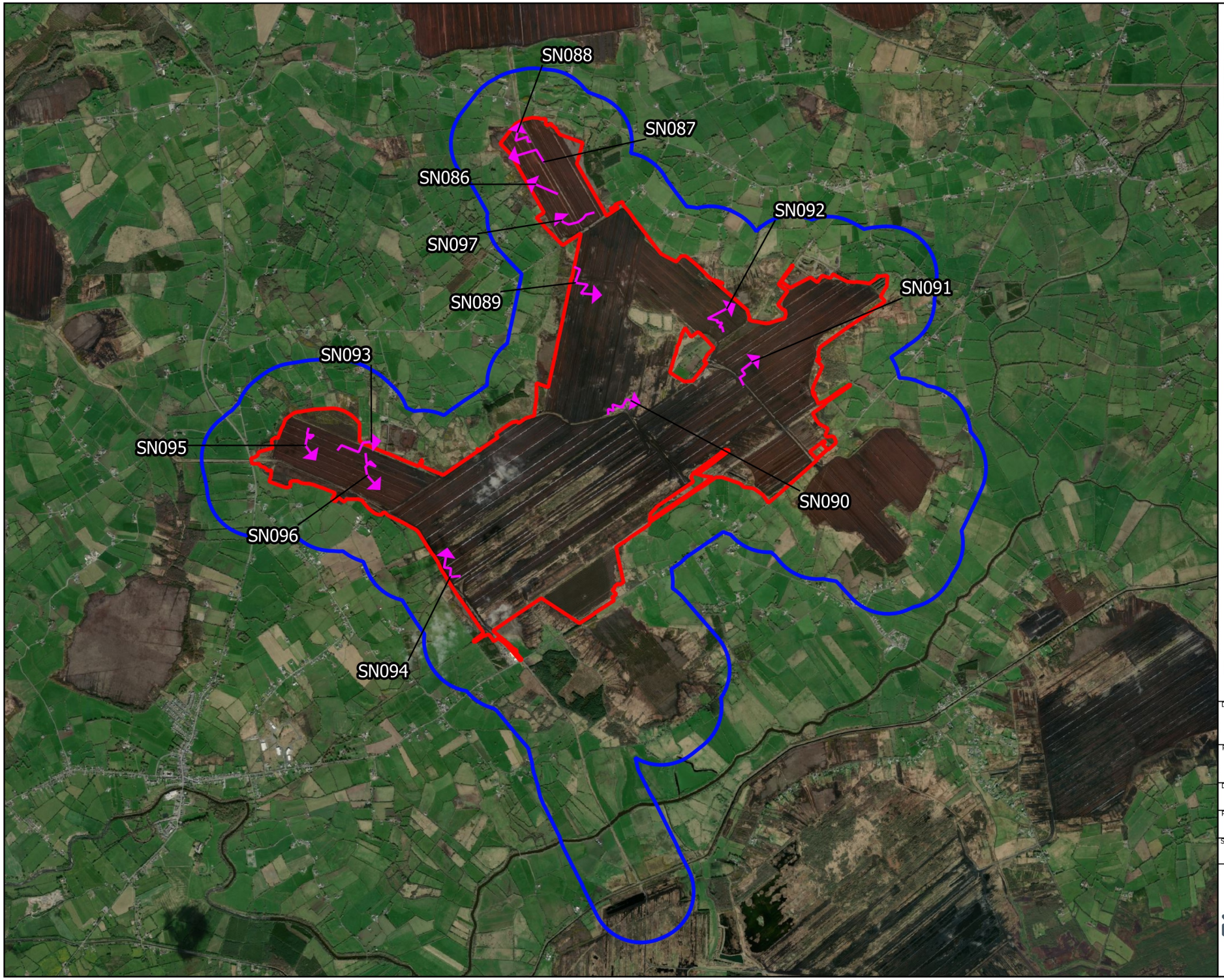
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Drawing Title: Snipe Observations Winter 2023/24 Winter Walkover Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.3d
Scale	Date
1:50,000	17.07.2025

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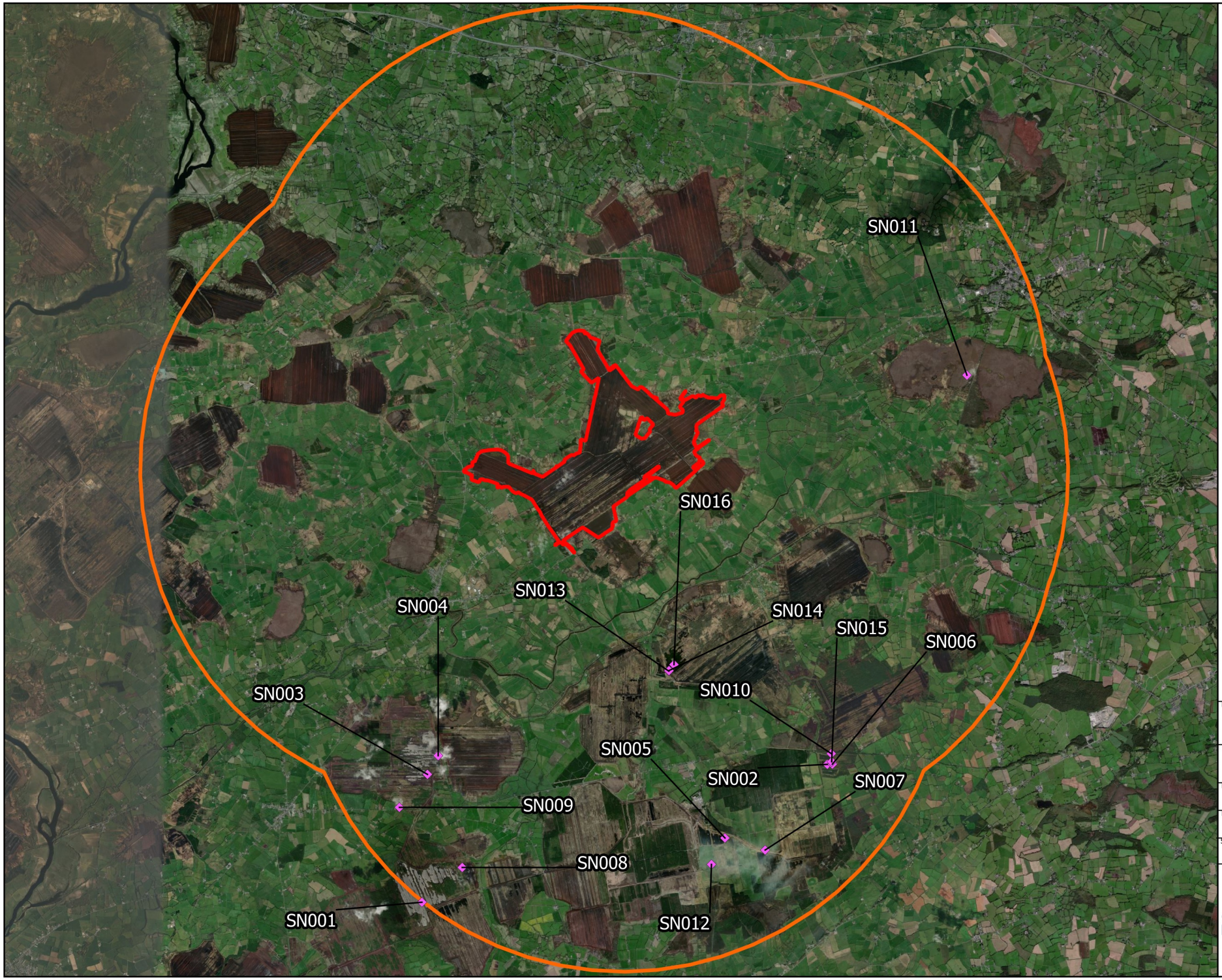
Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Snipe Observations Winter 24/25 Winter Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 14.3e
Scale: 1:50,000	Date: 17.07.2025

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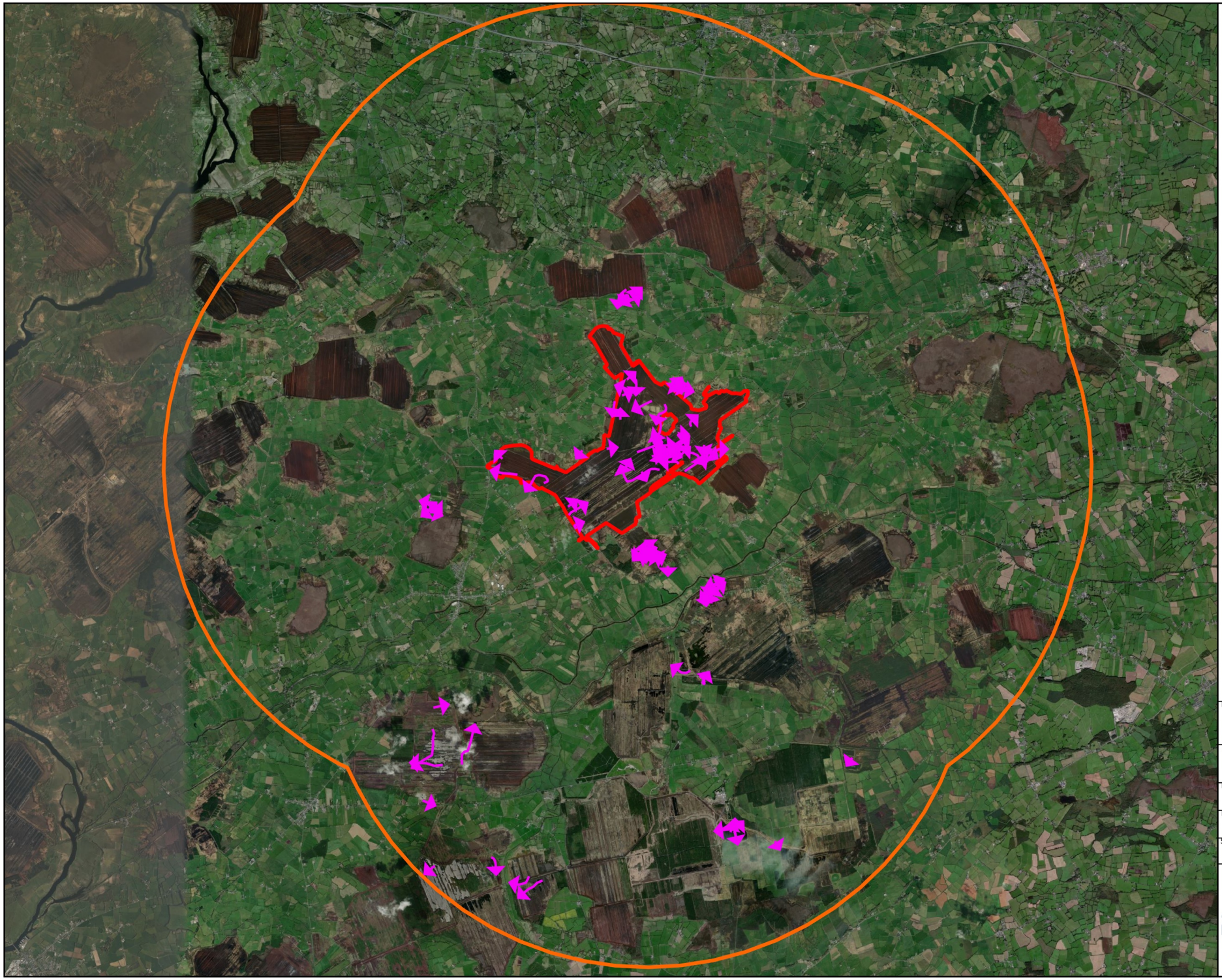
Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Snipe Waterbird Distribution and Abundance Survey Observations
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 14.4
Scale: 1:122,000	Date: 17.07.2025

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Drawing Title

Snipe
Incidental Records

Project Title

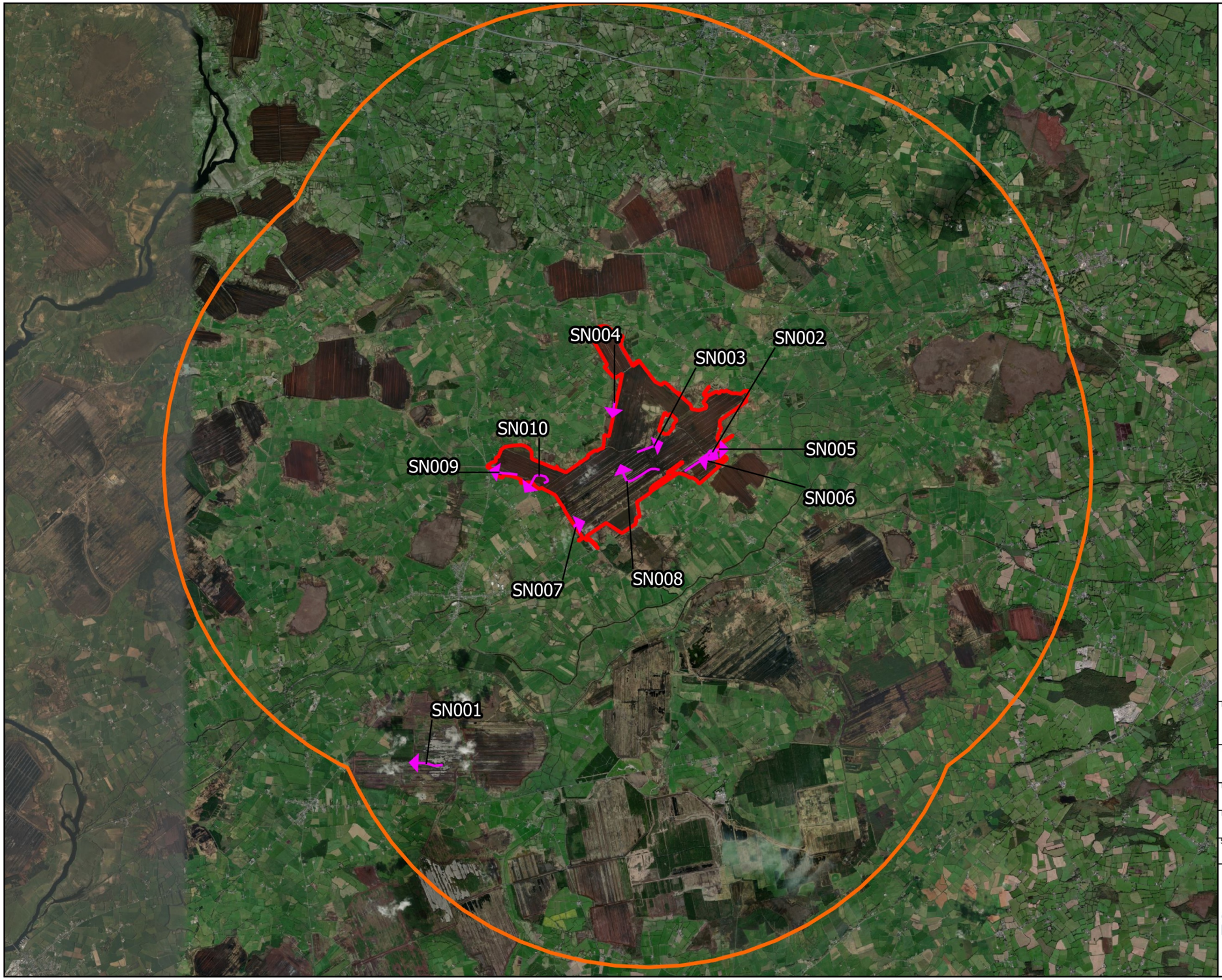
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5
Scale	Date
1:122,000	17.07.2025

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Incidental records of Snipe have been further divided across the following Figures in order to improve readability:

- Figure 14-5a – Snipe Incidental Records – Winter Season 2020/21, Breeding Season 2021 & Winter Season 2021/22
- Figure 14-5b – Snipe Incidental Records – Breeding Season 2022 & Winter Season 2022/23
- Figure 14-5c – Snipe Incidental Records – Breeding Season 2023
- Figure 14-5d – Snipe Incidental Records – Winter Season 2023/24
- Figure 14-5e – Snipe Incidental Records – Breeding Season 2024
- Figure 14-5f – Snipe Incidental Records – Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

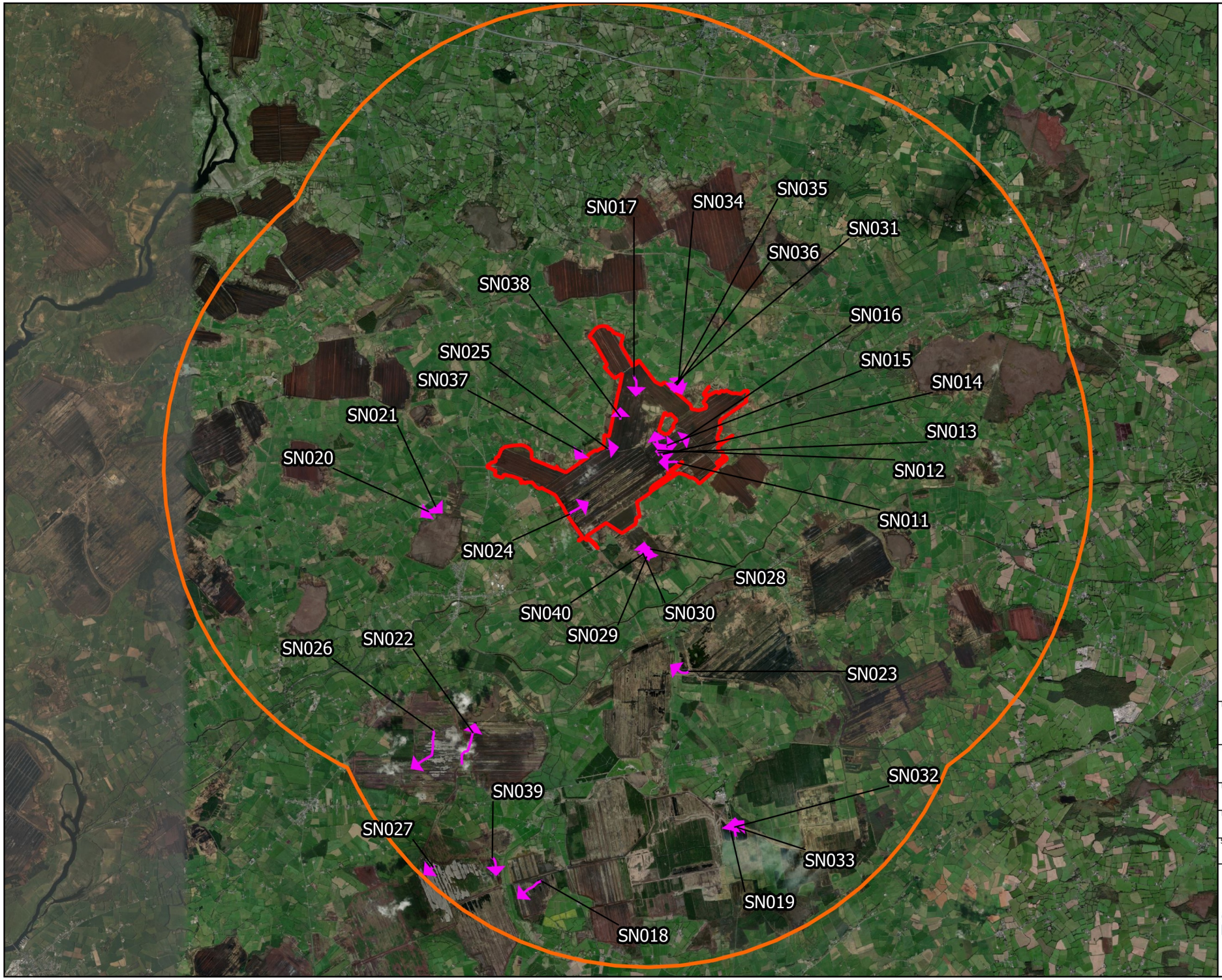
Snipe
Incidental Records (Oct20-Mar22)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5a
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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N

Drawing Title

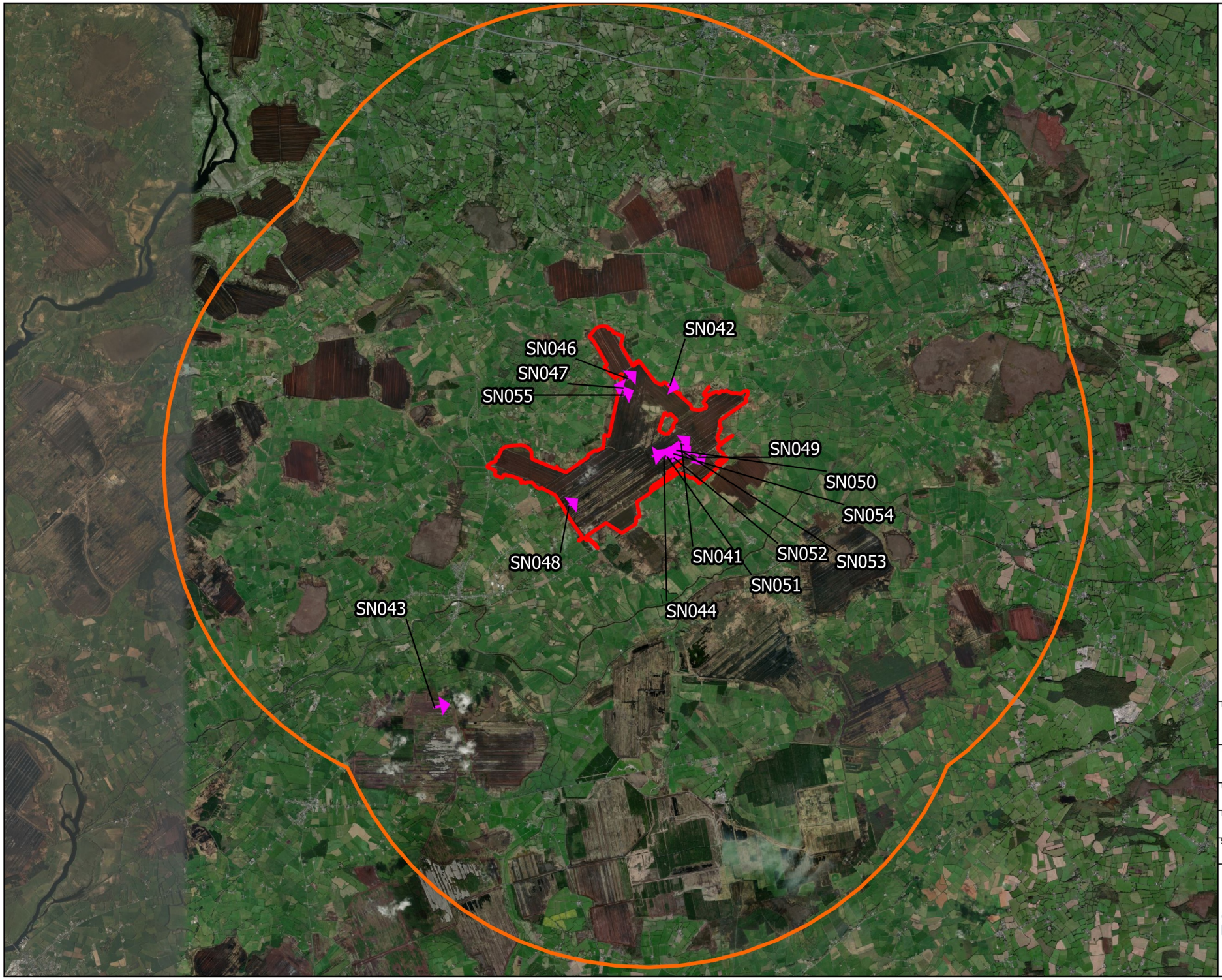
Snipe
Incidental Records (Apr22-Mar23)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5b
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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N

Drawing Title

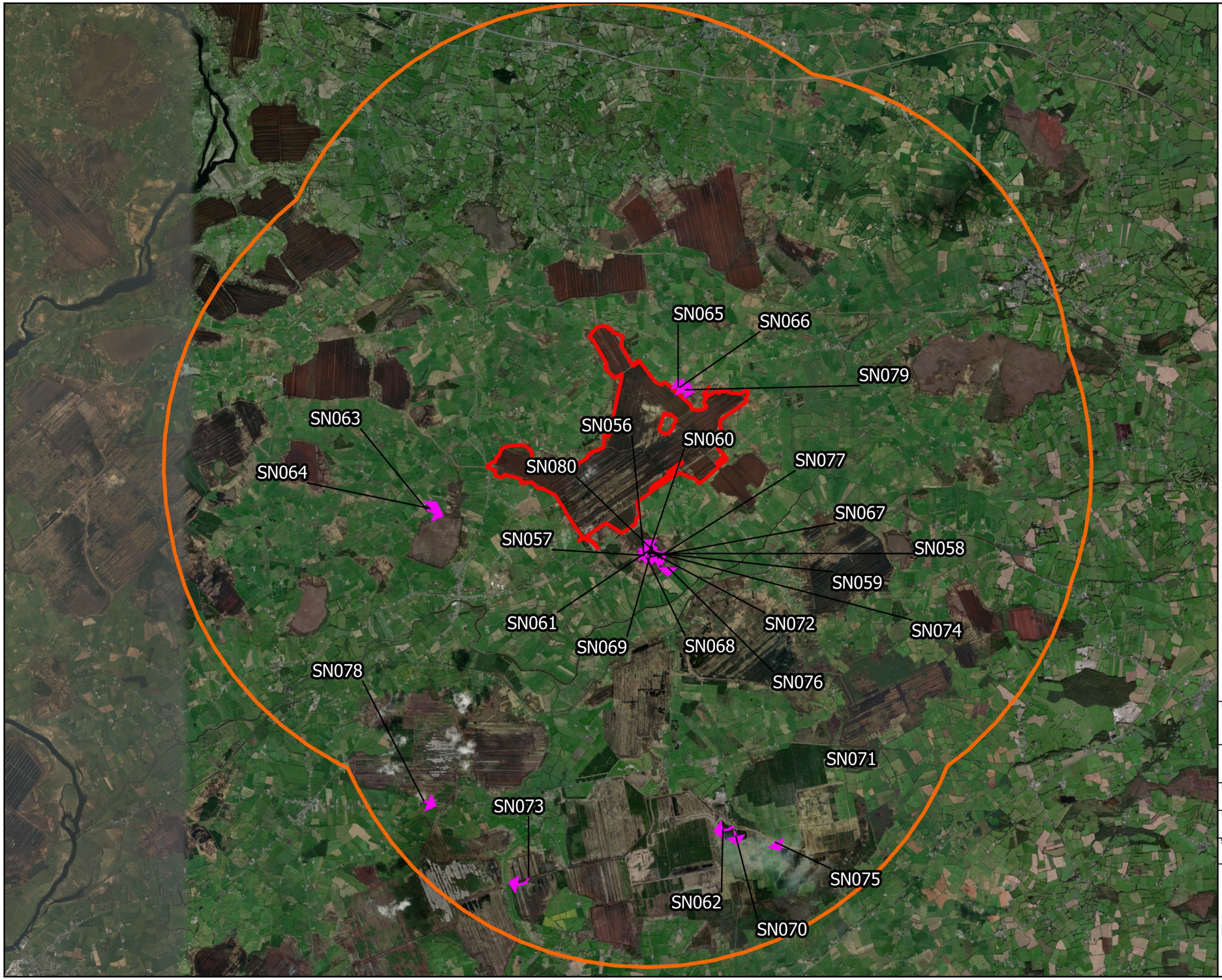
Snipe
Incidental Records (Apr23-Sep23)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5c
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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N

Drawing Title

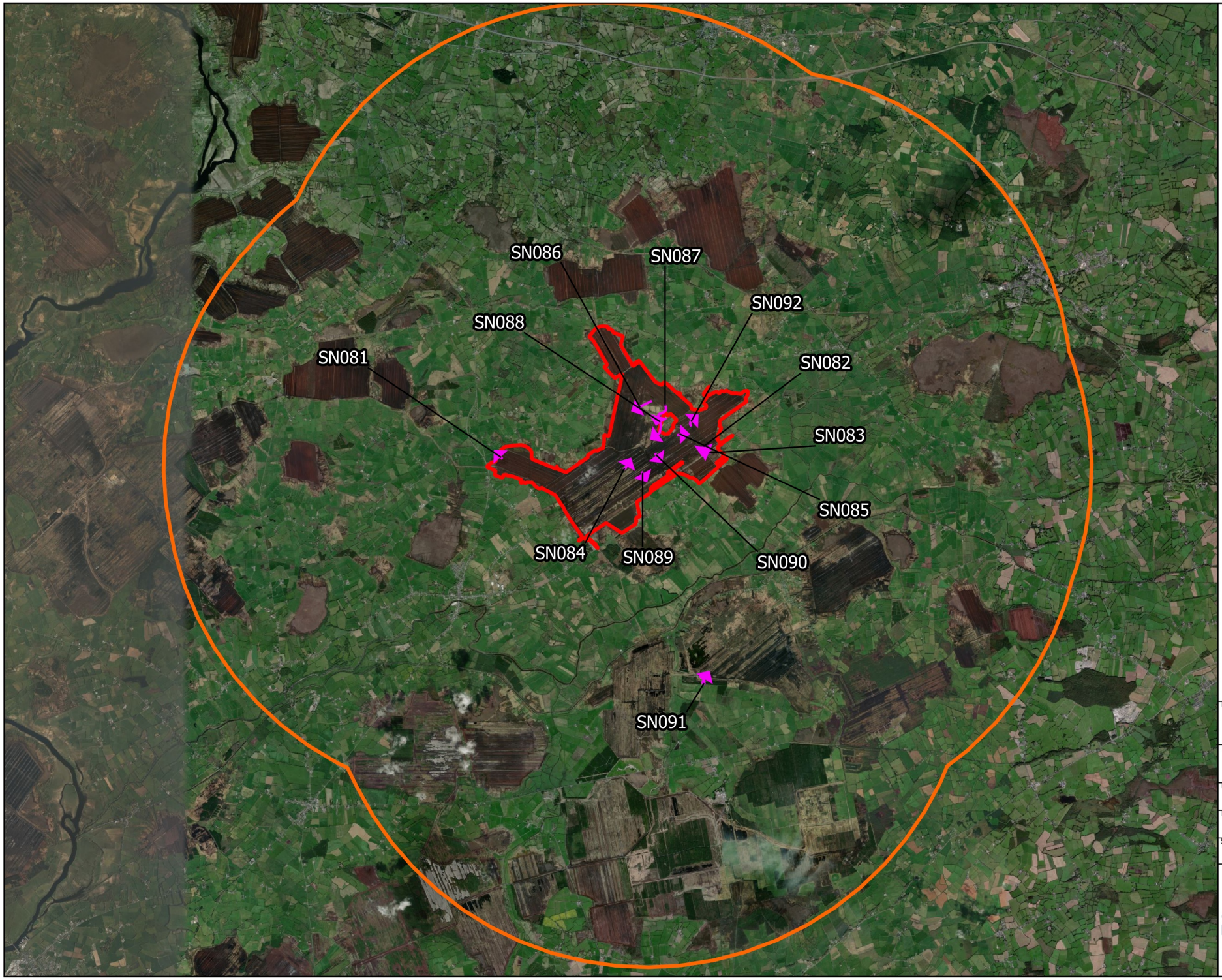
Snipe
Incidental Records (Oct23-Mar24)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5d
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

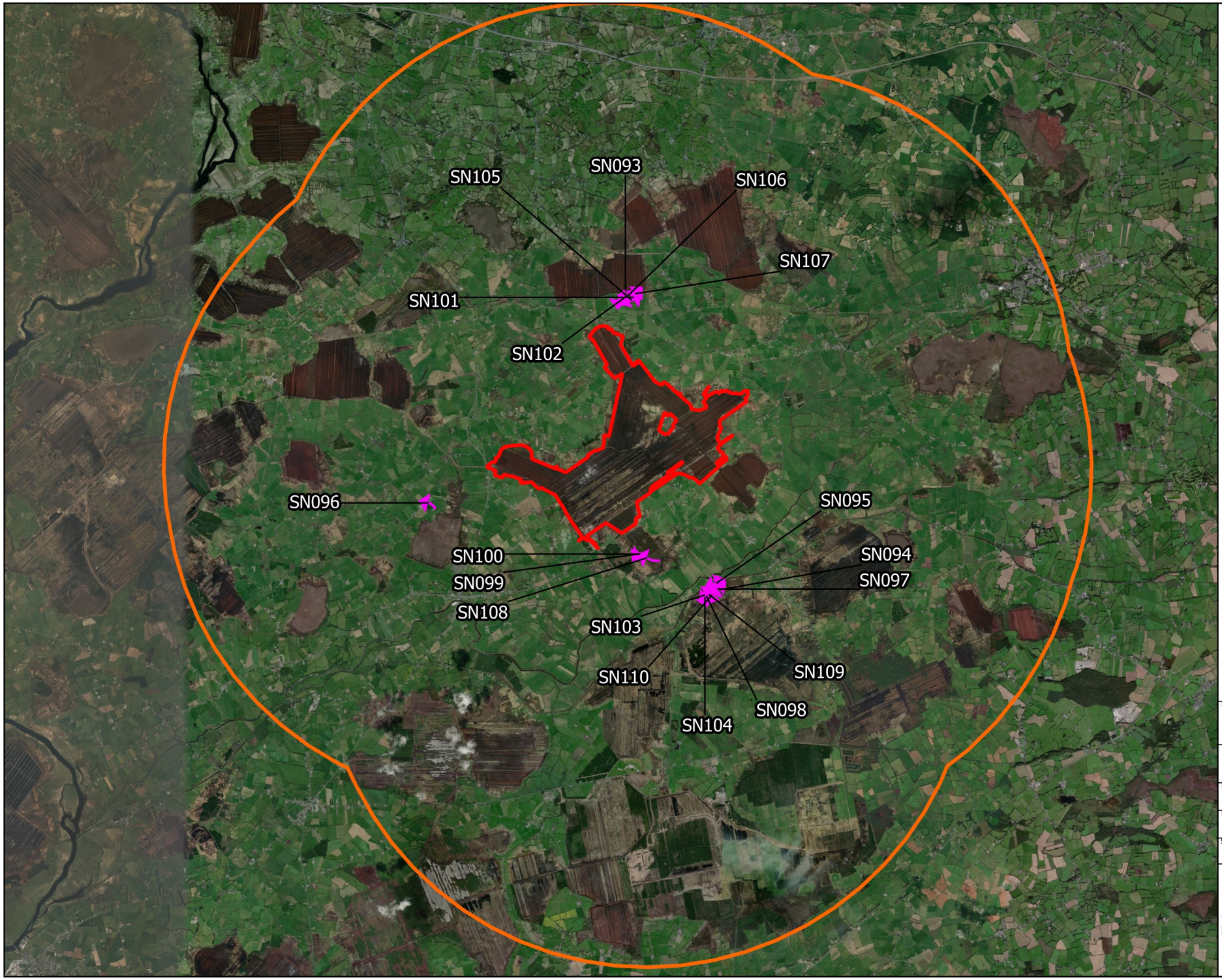
Snipe
Incidental Records (Apr24-Sep24)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 14.5e
Scale	Date
1:122,000	17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Snipe Incidental Records (Oct24-Mar25)
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 14.5f
Scale: 1:122,000	Date: 17.07.2025

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15. WOODCOCK

Table 15-1 Woodcock Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WK001	VP1	15/01/2021	09:14	Woodcock	1	10	10	0	0	0	cutover bog and scrub; travelling	JH
WK002	VP2	04/03/2021		Woodcock	1	-	-	-	-	-	cutover bog and scrub; vocalising/peenting, heard only/ too dark	JH
WK003	VP2	18/03/2021	19:00	Woodcock	1	20	20	0	0	0	woodland and scrub and bogs; flying	PT
WK004	VP2	18/03/2021	19:00	Woodcock	1	30	30	0	0	0	woodland and scrub and bogs; flying	PT
WK005	VP2	18/03/2021	19:01	Woodcock	1	30	30	0	0	0	cutover bog and bog woodland; flying	PT
WK006	VP3	25/03/2021	19:22	Woodcock	1	5	5	0	0	0	cutover bog and raised bog; roding	PT
WK007	VP3	25/03/2021	19:28	Woodcock	1	15	15	0	0	0	bog woodland; roding, behind vp	PT
WK008	VP1	30/03/2021	20:30	Woodcock	1	26	26	0	0	0	bog woodland; probably roding	PT
WK009	VP1	30/03/2021	20:31	Woodcock	1	28	28	0	0	0	bog woodland; probably roding	PT
WK010	VP1	30/03/2021	20:33	Woodcock	1	29	29	0	0	0	cutover bog, linear woodland/scrub and grassland and marsh; roding	PT
WK011	VP1	30/03/2021	20:35	Woodcock	1	40	40	0	0	0	cutover bog, linear woodland/scrub and grassland and marsh; roding	PT
WK012	VP1	05/07/2021	22:07	Woodcock	2	20	20	0	0	0	cutover bog and mixed broadleaved woodland; two males fighting	JG
WK013	VP6	26/01/2022	17:55	Woodcock	1	5	5	0	0	0	cutover bog; fly, flew from scrub	AOD
WK014	VP5	04/05/2022	21:22	Woodcock	1	55	8	47	0	0	bog woodland; flying, last seen heading north descending into woodland.	CR
WK015	VP5	04/05/2022	21:37	Woodcock	1	19	3	16	0	0	bog woodland and improved grassland; flying, heading north.	CR
WK016	VP5	04/05/2022	22:13	Woodcock	1	-	-	-	-	-	cutover bog; calling, male heard calling	CR
WK017	VP1	24/05/2022	21:13	Woodcock	1	138	40	98	0	0	scrub and cutover bog; flying	CR
WK018	VP1	24/05/2022	21:20	Woodcock	1	72	17	55	0	0	scrub and cutover bog; flying	CR
WK019	VP1	24/05/2022	21:23	Woodcock	1	66	28	38	0	0	scrub and cutover bog; flying	CR
WK020	VP1	24/05/2022	21:28	Woodcock	1	93	45	48	0	0	scrub and cutover bog; flying	CR
WK021	VP1	24/05/2022	21:40	Woodcock	1	124	13	23	88	0	scrub and cutover bog; flying	CR
WK022	VP1	24/05/2022	21:51	Woodcock	2	41	41	0	0	0	cutover bog and scrub; flying/calling, pair observed heading north east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WK023	VP1	24/05/2022	22:23	Woodcock	1	-	-	-	-	-	cutover bog and scrub; calling, male heard calling.	CR
WK024	VP2	25/05/2022	21:35	Woodcock	1	273	4	29	240	0	cutover bog and scrub; flying, last seen heading south.	CR
WK025	VP2	25/05/2022	21:44	Woodcock	1	420	8	12	400	0	cutover bog and scrub; flying, flying over scrubland for several minutes before observed heading north east.	CR
WK026	VP2	25/05/2022	22:08	Woodcock	1	56	23	33	0	0	scrub and cutover bog; flying, observed heading west into scrubland.	CR
WK027	VP2	25/05/2022	22:17	Woodcock	1	47	30	17	0	0	cutover bog and scrub; flying, heading north, also heard calling.	CR
WK028	VP2	25/05/2022	22:25	Woodcock	1	-	-	-	-	-	cutover bog; calling	CR
WK029	VP6	26/05/2022	21:56	Woodcock	1	71	10	61	0	0	cutover bog and scrub; flying, heading east.	CR
WK030	VP3	31/05/2022	22:11	Woodcock	1	63	0	7	56	0	bog woodland and cutover bog; flying, heading east.	CR
WK031	VP3	31/05/2022	22:15	Woodcock	1	22	3	19	0	0	cutover bog and highly modified/non-native woodland; flying, heard calling. heading north.	CR
WK032	VP3	31/05/2022	22:19	Woodcock	2	30	24	6	0	0	cutover bog and highly modified/non-native woodland; flying/calling, pair observed landing in bog.	CR
WK033	VP4	08/06/2022	22:00	Woodcock	1	44	44	0	0	0	cutover bog; flying	CR
WK034	VP5	03/03/2023	18:50	Woodcock	1	16	16	0	0	0	cutover bog; flying/calling	CR
WK035	VP1	29/03/2023	20:26	Woodcock	1	40	40	0	0	0	cutover bog and scrub; flying/calling	CR
WK036	VP1	29/03/2023	20:48	Woodcock	1	-	-	-	-	-	improved grassland; calling, breeding call	CR
WK037	VP3	31/03/2023	20:36	Woodcock	1	-	-	-	-	-	scrub; calling	CR
WK038	VP3	31/03/2023	20:49	Woodcock	1	-	-	-	-	-	scrub; calling	CR
WK039	VP6	17/04/2023	06:38	Woodcock	1	-	-	-	-	-	improved grassland; calling	CR
WK040	VP3	28/04/2023	06:00	Woodcock	1	-	-	-	-	-	scrub; calling	CR
WK041	VP5	08/05/2023	21:42	Woodcock	1	40	22	18	0	0	cutover bog and scrub; flying	CR
WK042	VP6	10/05/2023	10:08	Woodcock	1	-	-	-	-	-	cutover bog; calling	CR
WK043	VP3	15/05/2023	22:07	Woodcock	1	34	34	0	0	0	cutover bog; flying/calling	CR
WK044	VP3	15/05/2023	22:10	Woodcock	1	10	10	0	0	0	cutover bog; flying	CR
WK045	VP3	15/05/2023	22:18	Woodcock	1	-	-	-	-	-	cutover bog; flying/calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
WK046	VP2	16/05/2023	21:46	Woodcock	1	-	-	-	-	-	cutover bog and highly modified/non-native woodland; calling	CR
WK047	VP2	16/05/2023	21:56	Woodcock	1	-	-	-	-	-	cutover bog and highly modified/non-native woodland; calling	CR
WK048	VP2	16/05/2023	22:07	Woodcock	1	-	-	-	-	-	cutover bog and highly modified/non-native woodland; calling	CR
WK049	VP2	16/05/2023	22:25	Woodcock	1	-	-	-	-	-	cutover bog; calling	CR
WK050	VP4	17/05/2023	22:16	Woodcock	1	-	-	-	-	-	cutover bog; calling	CR
WK051	VP4	17/05/2023	22:22	Woodcock	1	20	20	0	0	0	cutover bog; flying/calling	CR
WK052	VP1	22/05/2023	21:43	Woodcock	1	99	37	62	0	0	cutover bog and improved grassland; flying/calling	CR
WK053	VP1	22/05/2023	21:54	Woodcock	1	7	7	0	0	0	cutover bog; flying/calling	CR
WK054	VP1	22/05/2023	21:55	Woodcock	1	86	65	21	0	0	cutover bog; flying/calling	CR
WK055	VP1	22/05/2023	21:57	Woodcock	1	39	39	0	0	0	cutover bog; flying/calling	CR
WK056	VP1	22/05/2023	21:57	Woodcock	1	8	8	0	0	0	cutover bog and improved grassland; flying/calling, observed pursuing woodcock sighted at 21:57 pm.	CR
WK057	VP1	22/05/2023	22:04	Woodcock	1	38	38	0	0	0	cutover bog; flying/calling	CR
WK058	VP1	22/05/2023	22:06	Woodcock	1	15	15	0	0	0	improved grassland; flying/calling	CR
WK059	VP1	22/05/2023	22:30	Woodcock	1	-	-	-	-	-	cutover bog; calling	CR
WK060	VP3	13/12/2023	16:58	Woodcock	2	9	0	0	0	0	cutover bog; flying	CR
WK061	VP1	20/02/2024	18:57	Woodcock	1	-	-	-	-	-	cutover bog and scrub/transitional woodland; calling	CR
WK062	VP3	21/02/2024	18:30	Woodcock	2	23	23	0	0	0	cutover bog; flying	CR
WK063	VP3	10/04/2024	20:43	Woodcock	1	10	10	0	0	0	cutover bog and scrub; roding	CG
WK064	VP4a	02/05/2024	05:11	Woodcock	1	-	-	-	-	-	cutover bog; calling	NL
WK065	VP1	24/05/2024	04:55	Woodcock	1	9	9	0	0	0	cutover bog; commuting	CG

Table 15-2 Woodcock Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
WK001	02/06/2022	19:13	-	Woodcock	1	cutover bog and scrub; flying (suitable nesting habitat; possible breeder)	CR
WK002	02/06/2022	19:24	-	Woodcock	1	cutover bog and scrub; flying/calling, heading north east. (suitable nesting habitat; possible breeder)	CR
WK003	02/06/2022	20:14	-	Woodcock	1	cutover bog and improved grassland; flying, heading south (suitable nesting habitat; possible breeder)	CR
WK004	02/06/2022	22:34	-	Woodcock	2	improved grassland, conifer plantation and scrub; flying, pair heading north (pair; probable breeding)	CR

Table 15-3 Breeding Woodcock Survey Data

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK001	WKT3	25/05/2021	21:39	Woodcock	1	mixed broadleaved woodland, cutover bog and scrub, roding, male seen and heard	TR
WK002	WKT3	25/05/2021	21:43	Woodcock	1	mixed broadleaved woodland, cutover bog and scrub, roding, different male to first observation	TR
WK003	WKT3	25/05/2021	21:47	Woodcock	1	mixed broadleaved woodland and cutover bog, roding	TR
WK004	WKT3	25/05/2021	21:56	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK005	WKT3	25/05/2021	21:59	Woodcock	1	mixed broadleaved woodland and scrub, roding	TR
WK006	WKT3	25/05/2021	22:03	Woodcock	1	mixed broadleaved woodland and scrub, roding	TR
WK007	WKT3	25/05/2021	22:06	Woodcock	1	mixed broadleaved woodland and scrub, roding	TR
WK008	WKT3	25/05/2021	22:10	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK009	WKT3	25/05/2021	22:20	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK010	WKT3	25/05/2021	22:23	Woodcock	1	mixed broadleaved woodland and scrub, roding	TR
WK011	WKT3	25/05/2021	22:28	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK012	WKT4	31/05/2021	21:49	Woodcock	1	scrub, mixed broadleaved woodland and cutover bog, roding, circled around when met with other male to sw. seperate territories	TR
WK013	WKT4	31/05/2021	21:50	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding, circled around when met male to ne, seperate territories	TR
WK014	WKT4	31/05/2021	21:54	Woodcock	1	scrub, mixed broadleaved woodland and cutover bog, roding	TR
WK015	WKT4	31/05/2021	21:58	Woodcock	2	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK016	WKT4	31/05/2021	22:05	Woodcock	1	mixed broadleaved woodland, scrub and cutover bog, roding	TR
WK017	WKT4	31/05/2021	22:11	Woodcock	1	scrub, mixed broadleaved woodland and cutover bog, roding	TR
WK018	WKT4	31/05/2021	22:38	Woodcock	2	hedgerows, scrub and cutover bog, roding, seen and heard, chipping and groaning	TR

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK019	WKT1	18/05/2021	21:21	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK020	WKT1	18/05/2021	21:25	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK021	WKT1	18/05/2021	21:25	Woodcock	1	cutover bog, calling/roding	JG
WK022	WKT1	18/05/2021	21:31	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK023	WKT1	18/05/2021	21:38	Woodcock	2	cutover bog and semi-natural woodland, calling/roding	JG
WK024	WKT1	18/05/2021	21:38	Woodcock	2	cutover bog and semi-natural woodland, calling/roding/fighting, two males fighting	JG
WK025	WKT1	18/05/2021	21:58	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK026	WKT1	18/05/2021	22:00	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK027	WKT1	18/05/2021	22:09	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK028	WKT2	27/05/2021	21:25	Woodcock	1	semi-natural woodland and conifer plantation, calling/roding	JG
WK029	WKT2	27/05/2021	21:26	Woodcock	1	cutover bog, conifer plantation and bog woodland, calling/roding	JG
WK030	WKT2	27/05/2021	21:28	Woodcock	1	cutover bog and conifer plantation, calling/roding	JG
WK031	WKT2	27/05/2021	21:33	Woodcock	1	conifer plantation and cutover bog, calling/roding	JG
WK032	WKT2	27/05/2021	21:44	Woodcock	1	cutover bog, bog woodland and conifer plantation, calling/roding	JG
WK033	WKT2	27/05/2021	21:52	Woodcock	1	cutover bog, calling/roding, only heard	JG
WK034	WKT2	27/05/2021	22:04	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK035	WKT2	27/05/2021	22:05	Woodcock	1	conifer plantation and cutover bog, calling/roding	JG
WK036	WKT2	27/05/2021	22:06	Woodcock	2	cutover bog and conifer plantation, two male fighting, one went north other south	JG
WK037	WKT2	27/05/2021	22:06	Woodcock	1	cutover bog and semi-natural woodland, fighting	JG
WK038	WKT2	27/05/2021	22:25	Woodcock	1	cutover bog, calling/roding, heard not seen	JG
WK039	WKT1	01/06/2021	21:50	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK040	WKT1	01/06/2021	21:51	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK041	WKT1	01/06/2021	21:52	Woodcock	1	cutover bog, calling/roding	JG
WK042	WKT1	01/06/2021	21:52	Woodcock	1	cutover bog and semi-natural woodland, calling/roding	JG
WK043	WKT1	01/06/2021	21:54	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK044	WKT1	01/06/2021	21:55	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK045	WKT1	01/06/2021	21:56	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK046	WKT1	01/06/2021	21:59	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK047	WKT1	01/06/2021	22:01	Woodcock	1	cutover bog, calling/roding	JG

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK048	WKT1	01/06/2021	22:03	Woodcock	1	cutover bog, calling/roding	JG
WK049	WKT1	01/06/2021	22:04	Woodcock	2	cutover bog and bog woodland, two males fighting	JG
WK050	WKT1	01/06/2021	22:09	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK051	WKT1	01/06/2021	22:11	Woodcock	1	cutover bog, flying	JG
WK052	WKT1	01/06/2021	22:14	Woodcock	1	semi-natural woodland, calling/roding	JG
WK053	WKT1	01/06/2021	22:14	Woodcock	1	bog woodland and cutover bog, calling/roding	JG
WK054	WKT1	01/06/2021	22:18	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK055	WKT1	01/06/2021	22:24	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK056	WKT1	03/06/2021	21:40	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK057	WKT1	03/06/2021	21:43	Woodcock	1	cutover bog and bog woodland, calling/roding	JG
WK058	WKT1	03/06/2021	21:52	Woodcock	1	improved agricultural grassland and semi-natural woodland, calling/roding	JG
WK059	WKT1	03/06/2021	22:20	Woodcock	1	cutover bog and mixed broadleaved woodland, calling/roding	JG
WK060	WKT1	03/06/2021	22:24	Woodcock	1	mixed broadleaved woodland, improved agricultural grassland and cutover bog, calling/roding	JG
WK061	WKT1	03/06/2021	22:25	Woodcock	1	mixed broadleaved woodland, improved agricultural grassland and cutover bog, calling/roding	JG
WK062	WKT1	03/06/2021	22:28	Woodcock	1	mixed broadleaved woodland, improved agricultural grassland and cutover bog, calling/roding	JG
WK063	WKT1	09/06/2021	22:02	Woodcock	1	mixed broadleaved woodland and cutover bog, calling	JG
WK064	WKT1	09/06/2021	22:05	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK065	WKT1	09/06/2021	22:08	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK066	WKT1	09/06/2021	22:11	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK067	WKT1	09/06/2021	22:14	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK068	WKT1	09/06/2021	22:14	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK069	WKT1	09/06/2021	22:15	Woodcock	1	mixed broadleaved woodland, calling/roding	JG
WK070	WKT1	09/06/2021	22:47	Woodcock	1	recently-felled woodland and mixed broadleaved woodland, calling, heard calling when i got back to the car	JG
WK071	WKT1	09/06/2021	22:50	Woodcock	1	improved agricultural grassland, mixed broadleaved woodland and recently-felled woodland, calling/roding, flew over main road	JG
WK072	WKT1	09/06/2021	22:55	Woodcock	1	cutover bog, recently-felled woodland and improved agricultural grassland, calling/roding, flew over road	JG
WK073	WKT1	14/06/2021	22:09	Woodcock	1	mixed broadleaved woodland, cutover bog and recently-felled woodland, calling/roding	JG

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK074	WKT1	14/06/2021	22:11	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK075	WKT1	14/06/2021	22:17	Woodcock	1	mixed broadleaved woodland, cutover bog and conifer plantation, calling/roding	JG
WK076	WKT1	14/06/2021	22:27	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK077	WKT1	14/06/2021	22:30	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK078	WKT1	14/06/2021	22:33	Woodcock	1	mixed broadleaved woodland, recently-felled woodland and conifer plantation, calling/roding	JG
WK079	WKT1	15/06/2021	21:36	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK080	WKT1	15/06/2021	22:17	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK081	WKT1	15/06/2021	22:21	Woodcock	1	cutover bog and mixed broadleaved woodland, calling/roding	JG
WK082	WKT1	15/06/2021	22:26	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK083	WKT1	15/06/2021	22:26	Woodcock	2	mixed broadleaved woodland and cutover bog, two males fighting	JG
WK084	WKT1	15/06/2021	22:28	Woodcock	1	mixed broadleaved woodland and cutover bog, calling, heard not seen	JG
WK085	WKT1	15/06/2021	22:34	Woodcock	1	cutover bog, calling/roding	JG
WK086	WKT1	15/06/2021	22:40	Woodcock	1	mixed broadleaved woodland, calling/roding	JG
WK087	WKT1	16/06/2021	22:33	Woodcock	1	mixed broadleaved woodland and cutover bog, calling/roding	JG
WK088	WKT1	16/06/2021	22:36	Woodcock	1	mixed broadleaved woodland, cutover bog and improved grassland, calling/roding	JG
WK089	WKT1	16/06/2021	22:41	Woodcock	1	mixed broadleaved woodland, calling/roding	JG
WK090	WKT1	28/06/2021	22:22	Woodcock	1	oak-birch-holly woodland and cutover bog, calling/roding	JG
WK091	WKT1	28/06/2021	22:27	Woodcock	1	oak-birch-holly woodland and cutover bog, calling/roding	JG
WK092	WKT1	19/05/2022	21:12	Woodcock	1	improved grassland and conifer plantation, flying, heading north before descending into woodland.	CR
WK093	WKT1	30/05/2022	21:24	Woodcock	1	cutover bog and conifer plantation, flying, heading north	CR
WK094	WKT1	13/06/2022	22:42	Woodcock	1	improved grassland, flying, heading north.	CR
WK095	WKT1	20/06/2022	22:56	Woodcock	1	cutover bog, calling	CR
WK096	WKT1	20/06/2022	23:04	Woodcock	1	cutover bog and scrub, calling	CR
WK097	WKT1	29/06/2022	22:24	Woodcock	1	cutover bog and conifer plantation, flying/calling	CR
WK098	WKT1	29/06/2022	22:53	Woodcock	1	cutover bog, calling, heard calling	CR
WK099	WKT1	30/06/2022	22:31	Woodcock	1	cutover bog, calling	CR
WK100	WKT1	30/06/2022	22:46	Woodcock	1	cutover bog, calling	CR
WK101	WKT1	05/05/2023	21:19	Woodcock	1	cutover bog, flying	CR

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK102	WKT1	05/05/2023	21:46	Woodcock	1	cutover bog, flying/calling	CR
WK103	WKT1	11/05/2023	21:33	Woodcock	1	cutover bog, flying	CR
WK104	WKT1	11/05/2023	22:14	Woodcock	1	cutover bog, calling	CR
WK105	WKT1	07/06/2023	22:43	Woodcock	1	cutover bog, calling	CR
WK106	WKT1	07/06/2023	22:50	Woodcock	2	cutover bog, flying/calling	CR
WK107	WKT1	13/06/2023	22:05	Woodcock	1	cutover bog, flying/calling	CR
WK108	WKT1	13/06/2023	22:09	Woodcock	1	cutover bog, flying/calling	CR
WK109	WKT1	13/06/2023	22:24	Woodcock	1	cutover bog, flying/calling	CR
WK110	WKT1	13/06/2023	22:36	Woodcock	1	cutover bog, flying/calling	CR
WK111	WKT1	19/06/2023	22:06	Woodcock	1	cutover bog, flying/calling	CR
WK112	WKT1	19/06/2023	22:13	Woodcock	1	cutover bog, flying/calling	CR
WK113	WKT1	19/06/2023	22:15	Woodcock	1	cutover bog and improved grassland, flying/calling	CR
WK114	WKT1	19/06/2023	22:17	Woodcock	1	cutover bog and improved grassland, flying/calling	CR
WK115	WKT1	19/06/2023	22:23	Woodcock	1	cutover bog, flying/calling	CR
WK116	WKT1	19/06/2023	22:23	Woodcock	2	cutover bog, flying/calling	CR
WK117	WKT1	19/06/2023	22:26	Woodcock	2	cutover bog, flying/calling	CR
WK118	WKT1	19/06/2023	22:37	Woodcock	1	cutover bog, flying	CR
WK119	WKT1	19/06/2023	22:40	Woodcock	1	cutover bog, calling	CR
WK120	WKT2	21/06/2023	22:22	Woodcock	2	cutover bog, flying/calling	CR
WK121	WKT2	21/06/2023	22:30	Woodcock	1	cutover bog, flying/calling	CR
WK122	WKT2	27/06/2023	22:19	Woodcock	1	improved grassland and highly modified/non-native woodland, calling	CR
WK123	WKT2	27/06/2023	22:31	Woodcock	1	cutover bog, flying/calling	CR
WK124	WKT2	27/06/2023	22:35	Woodcock	1	cutover bog, flying/calling	CR
WK125	WKT2	27/06/2023	22:52	Woodcock	1	cutover bog, calling	CR
WK126	WKT2	27/06/2023	22:57	Woodcock	1	cutover bog, flying/calling	CR
WK127	WKT2	16/05/2024	21:37	Woodcock	1	treelines and cutover bog, roding, following treeline	SD
WK128	WKT2	16/05/2024	21:40	Woodcock	1	mixed broadleaved/conifer woodland and cutover bog, roding, same individual on circut around farm fields	SD
WK129	WKT2	16/05/2024	21:47	Woodcock	1	treelines and cutover bog, roding, same individual as at 21:37 making another pass	SD

Ref.	Transect	Date	Time	Species	Number	Habitat and activity	Surveyor
WK130	WKT2	16/05/2024	21:52	Woodcock	1	treelines and cutover bog, roding, same individual audible from behind treeline, near farm fields	SD
WK131	WKT2	16/05/2024	21:57	Woodcock	1	treelines and cutover bog, roding, same individual clearly turning south-west, appears to be circling the farm fields in centre of site	SD
WK132	WKT2	16/05/2024	22:40	Woodcock	1	scrub/transitional woodland and cutover bog, roding	SD
WK133	WKT2	30/05/2024	21:53	Woodcock	2	cutover bog, flying	SD
WK134	WKT2	30/05/2024	21:53	Woodcock	1	cutover bog, flying	SD
WK135	WKT2	30/05/2024	22:08	Woodcock	2	scrub/transitional woodland, roding and calling, male and female	SD
WK136	WKT2	30/05/2024	22:13	Woodcock	1	cutover bog, roding, bird 1	PM
WK137	WKT2	30/05/2024	22:18	Woodcock	1	scrub/transitional woodland, roding, male	SD
WK138	WKT2	30/05/2024	22:19	Woodcock	1	cutover bog, roding, bird 1	PM
WK139	WKT2	30/05/2024	22:32	Woodcock	1	cutover bog, roding, bird 2	PM
WK140	WKT2	30/05/2024	22:35	Woodcock	1	cutover bog, roding, bird 3 - possibly	PM
WK141	WKT2	30/05/2024	22:39	Woodcock	1	cutover bog, roding, bird 3	PM
WK142	WKT3	30/05/2024	22:43	Woodcock	1	scrub/transitional woodland, calling	SD
WK143	WKT3	30/05/2024	22:47	Woodcock	1	scrub/transitional woodland, roding, male	SD
WK144	WKT3	12/06/2024	22:26	Woodcock	1	cutover bog and semi-natural woodland, flying	BC
WK145	WKT3	12/06/2024	22:43	Woodcock	1	cutover bog and semi-natural woodland, flying, calling in flight	BC
WK146	WKT3	12/06/2024	22:48	Woodcock	1	cutover bog and semi-natural woodland, flying, calling in flight	BC
WK147	WKT2	13/06/2024	22:36	Woodcock	1	scrub/transitional woodland, roding	SD
WK148	WKT2	13/06/2024	22:47	Woodcock	1	scrub/transitional woodland, roding	SD
WK149	WKT2	13/06/2024	22:49	Woodcock	1	scrub/transitional woodland, roding, likely same bird	SD
WK150	WKT1	30/06/2024	20:54	Woodcock	1	scrub/transitional woodland and bogs, roding	SD
WK151	WKT1	30/06/2024	22:40	Woodcock	1	scrub/transitional woodland, roding	SD

Table 15-4 Woodcock Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WK001	Breeding Barn Owl Survey; Rosfaraghan. BnM sheds	12/05/2021	21:50	Woodcock	1	mixed broadleaved woodland, conifer plantation and cutover bog; roding, male roding, breeding territory. observed during barn owl nocturnal survey	TR
WK002	Hen Harrier Roost Survey; HHVP5	13/12/2021	21:33	Woodcock	1	improved grassland, highly modified/non-native woodland and cutover bog; flying, observed landing in field before leaving the area heading south east.	CR
WK003	Hen Harrier Roost Survey; HHVP5	21/03/2022	19:10	Woodcock	1	improved grassland; flying, observed heading east.	CR
WK004	Breeding Raptor Survey; BR5	16/05/2022	20:43	Woodcock	1	improved grassland and conifer plantation; flying, heading south east.	CR
WK005	Breeding Raptor Survey; BR5	16/05/2022	21:25	Woodcock	1	improved grassland and conifer plantation; flying, heading south east.	CR
WK006	Breeding Raptor Survey; BR5	16/05/2022	22:17	Woodcock	1	improved grassland; flying, landed in field.	CR
WK007	Hen Harrier Roost Survey; HHVP5	09/02/2023	18:09	Woodcock	1	cutover bog; flying	CR
WK008	Hen Harrier Roost Survey; HHVP2	10/02/2023	17:23	Woodcock	1	cutover bog; flying	CR
WK009	Hen Harrier Roost Survey; HHVP1	13/03/2023	19:09	Woodcock	2	improved grassland; displaying/calling, heading north.	CR
WK010	Hen Harrier Roost Survey; HHVP2	31/03/2023	06:27	Woodcock	1	cutover bog; calling	CR
WK011	Hen Harrier Roost Survey; HHVP2	31/03/2023	06:30	Woodcock	1	cutover bog; calling	CR
WK012	Breeding Raptor Survey; Southern part of site near Primo Coachworks.	09/05/2023	21:22	Woodcock	1	cutover bog; flying/calling	CR
WK013	Breeding Raptor Survey; Southern part of site near Primo Coachworks.	09/05/2023	21:36	Woodcock	1	cutover bog; flying/calling	CR
WK014	Breeding Raptor Survey; Southern part of site near Primo Coachworks.	09/05/2023	21:54	Woodcock	1	cutover bog; calling	CR
WK015	Breeding Raptor Survey; Southern part of site near Primo Coachworks.	09/05/2023	22:05	Woodcock	1	cutover bog; calling	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
WK016	Vantage Point Survey; VP1	22/05/2023	22:43	Woodcock	1	cutover bog; calling	CR
WK017	Vantage Point Survey; VP1	22/05/2023	22:45	Woodcock	1	cutover bog; calling	CR
WK018	Breeding Raptor Survey; South of site.	20/06/2023	22:04	Woodcock	1	highly modified/non-native woodland; calling	CR
WK019	Breeding Raptor Survey; South of site.	20/06/2023	22:16	Woodcock	1	cutover bog; calling	CR
WK020	Breeding Raptor Survey; South of site.	20/06/2023	22:20	Woodcock	1	cutover bog; flying/calling	CR
WK021	Breeding Raptor Survey; South of site.	20/06/2023	22:29	Woodcock	1	cutover bog, improved grassland and highly modified/non-native woodland; flying	CR
WK022	Breeding Raptor Survey; South of site.	20/06/2023	22:29	Woodcock	1	cutover bog; flying/calling	CR
WK023	Breeding Raptor Survey; South of site.	20/06/2023	22:50	Woodcock	1	highly modified/non-native woodland and cutover bog; calling	CR
WK024	Breeding Raptor Survey; South of site.	20/06/2023	22:54	Woodcock	1	highly modified/non-native woodland, cutover bog and improved grassland; flying/calling	CR
WK025	Hen Harrier Roost Survey; HHVP4	06/12/2023	16:44	Woodcock	2	improved grassland; flying	CR
WK026	Hen Harrier Roost Survey; HHVP5	10/01/2024	17:13	Woodcock	1	cutover bog and highly modified/non-native woodland; flying	CR
WK027	Hen Harrier Roost Survey; HHVP4	13/02/2024	18:07	Woodcock	2	improved grassland and cutover bog; flying	CR
WK028	Hen Harrier Roost Survey; HHVP2	12/03/2024	18:55	Woodcock	1	cutover bog; calling	CR
WK029	Hen Harrier Roost Survey; HHVP5	19/03/2024	19:10	Woodcock	1	cutover bog and scrub/transitional woodland; roding	CR
WK030	Hen Harrier Roost Survey; HHVP2	26/03/2024	19:09	Woodcock	1	cutover bog; roding	CR
WK031	Hen Harrier Roost Survey; HHVP2	26/03/2024	19:19	Woodcock	1	cutover bog; roding	CR
WK032	Vantage Point Survey; VP3	10/04/2024	21:00	Woodcock	1	scrub and cutover bog; roding, roding male behind viewshed	CG
WK033	Vantage Point Survey; Ballydaly	24/05/2024	04:05	Woodcock	1	conifer plantation, bogs and improved agricultural grassland; roding	CG



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title

Woodcock
Vantage Point Survey Observations

Project Title

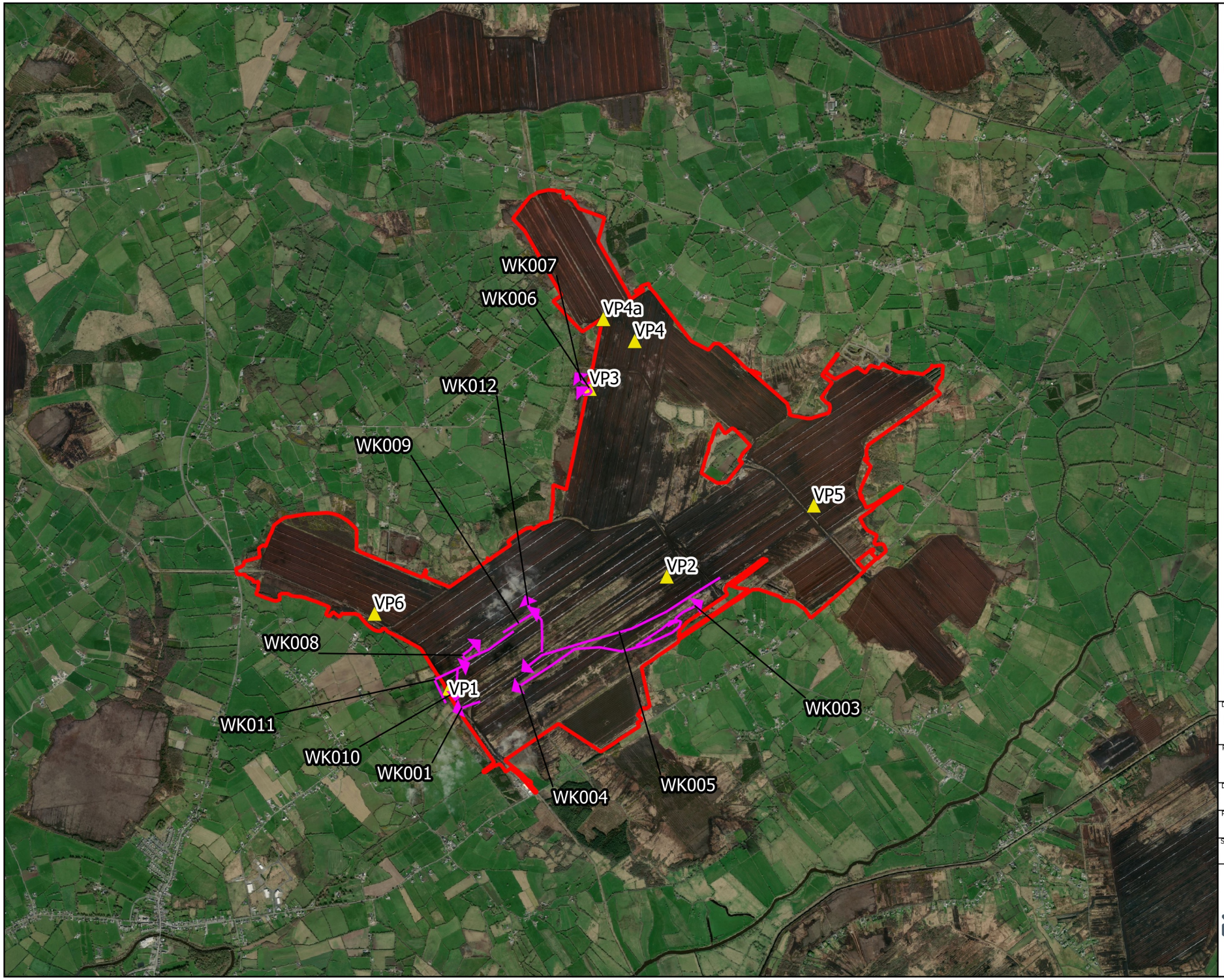
Extraction in Lemanaghan Bog, Co. Offaly

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200804-e	Fig. 15.1
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Observations of Woodcock form Vantage Point Surveys have been further divided across the following Figures in order to improve readability:

- Figure 15-1a – Woodcock Vantage Point Survey Data Winter Season 2020/21 and Breeding Season 2021
- Figure 15-1b – Woodcock Vantage Point Survey Data Winter Season 2021/22 and Breeding Season 2022
- Figure 15-1c – Woodcock Vantage Point Survey Data Winter Season 2022/23 and Breeding Season 2023
- Figure 15-1d – Woodcock Vantage Point Survey Data Winter Season 2023/24 and Breeding Season 2024



Map Legend

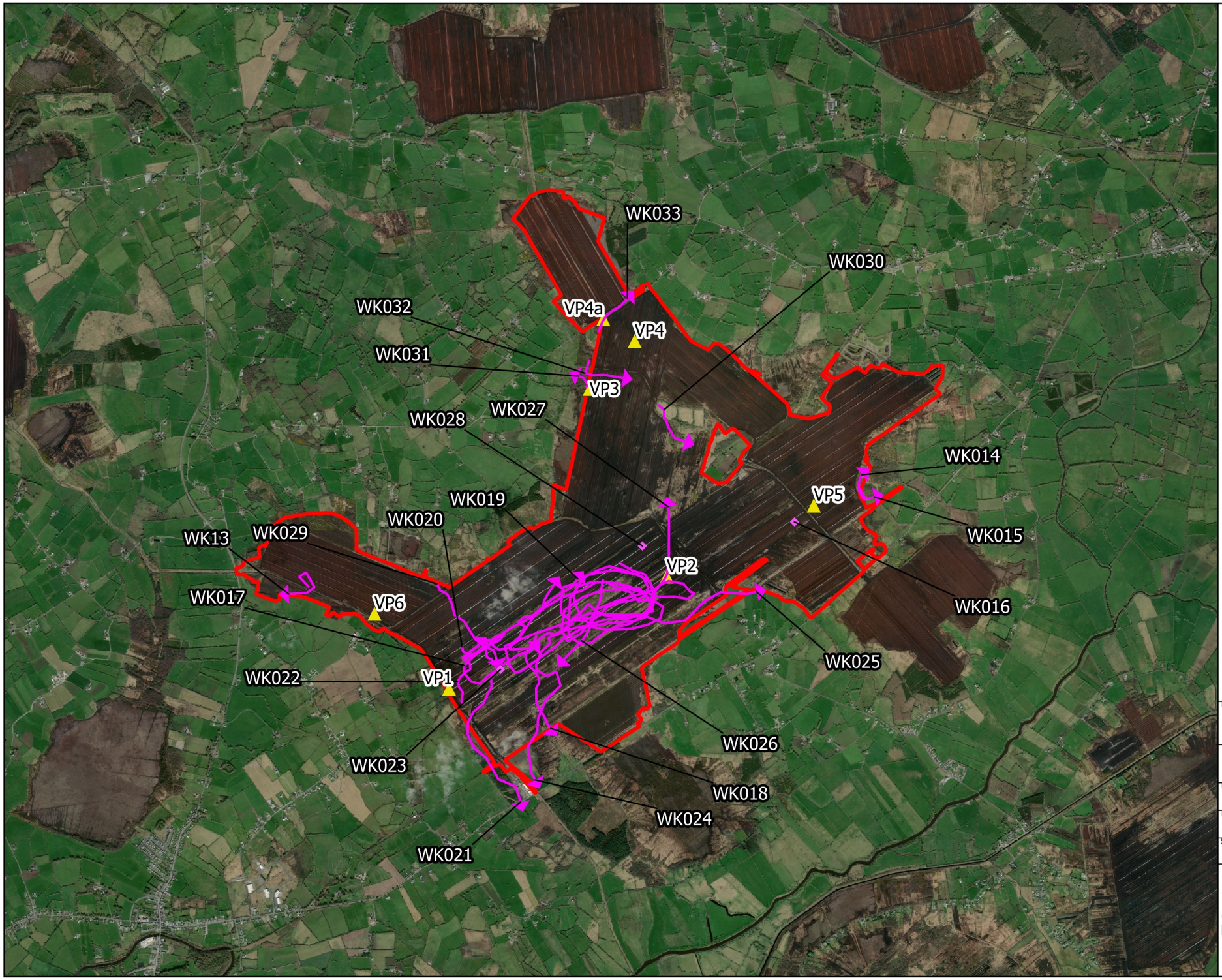
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- Vantage Point Locations
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 15.1a
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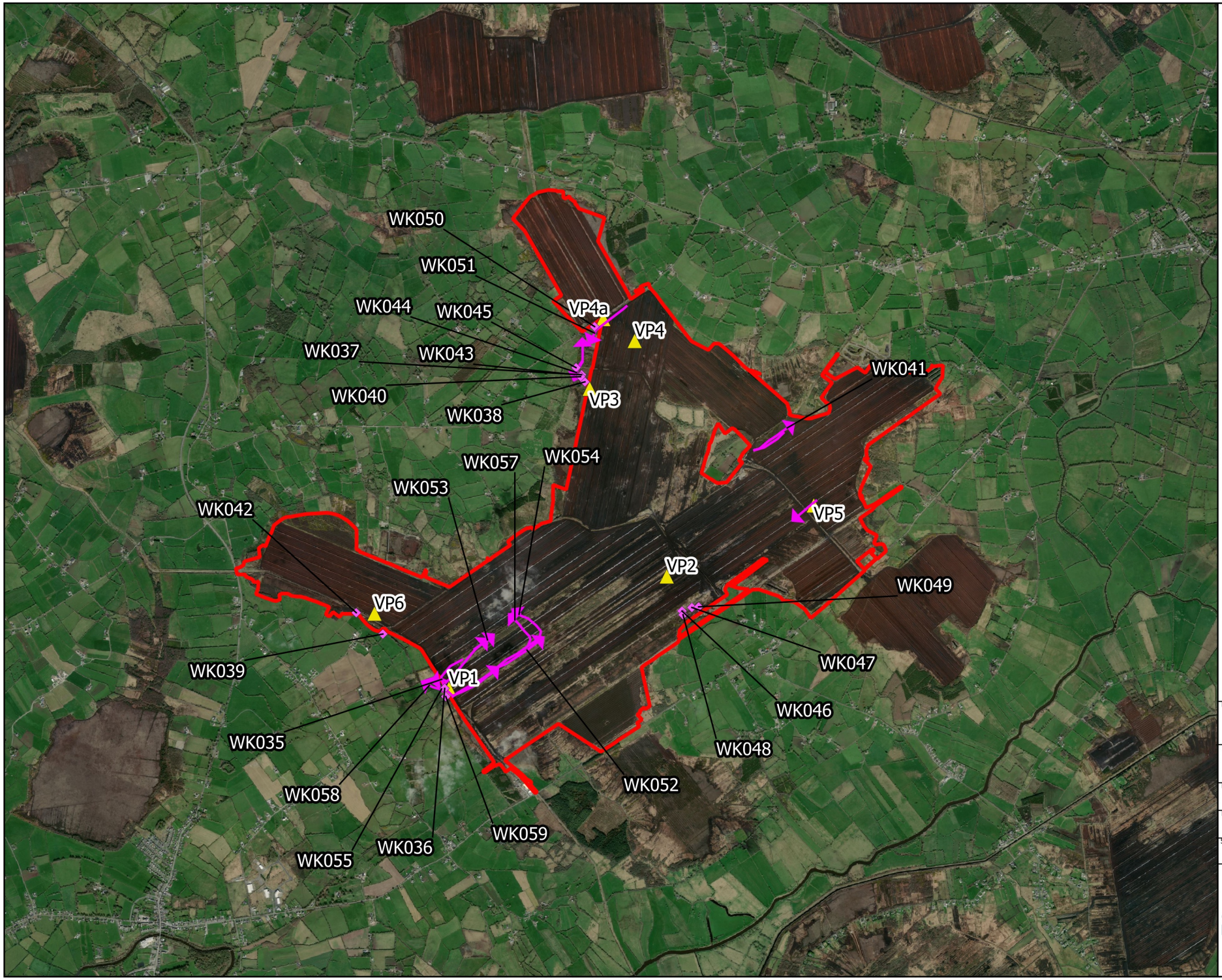
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- Vantage Point Locations
- Flight Observation
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 15.1b
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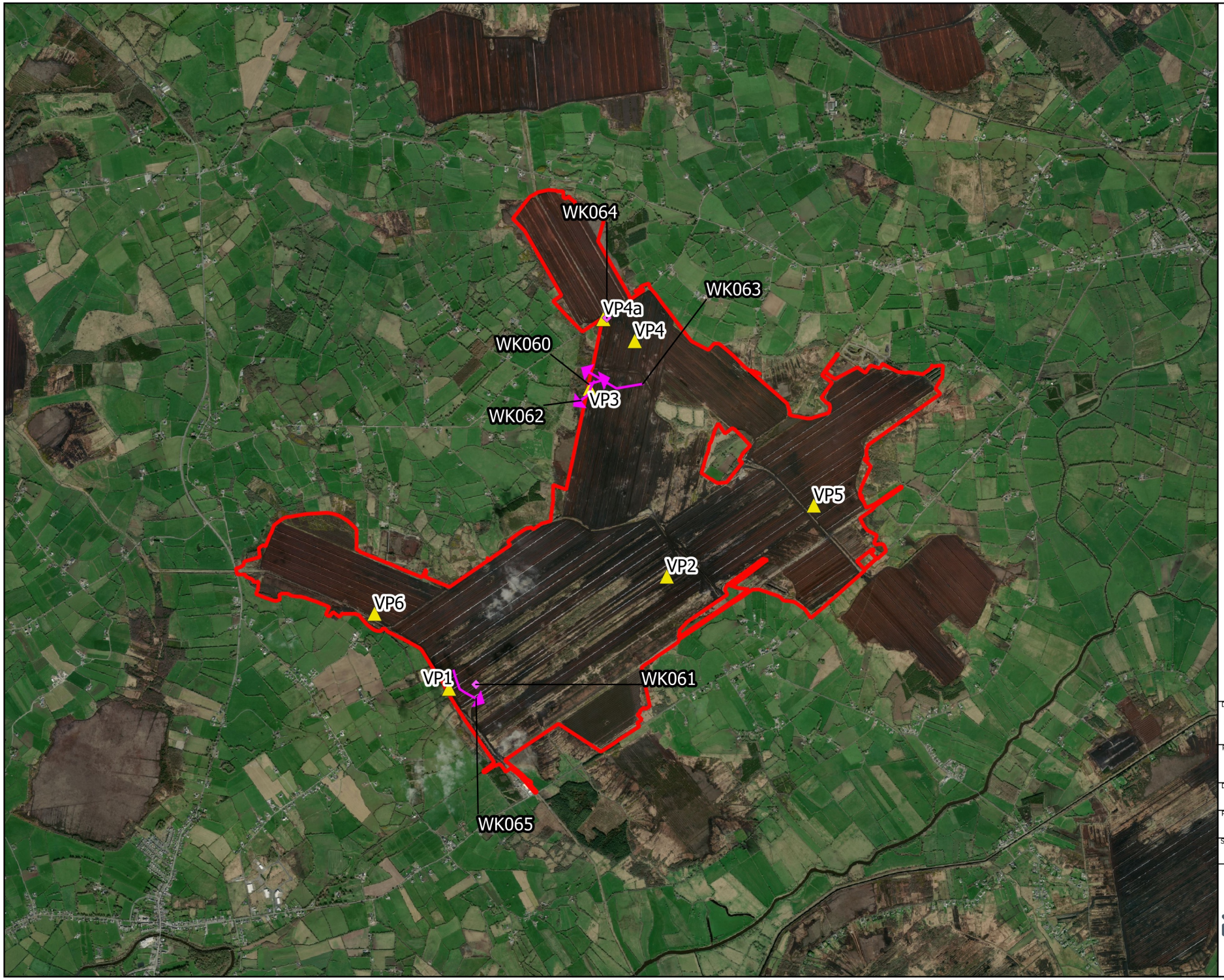
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 15.1c
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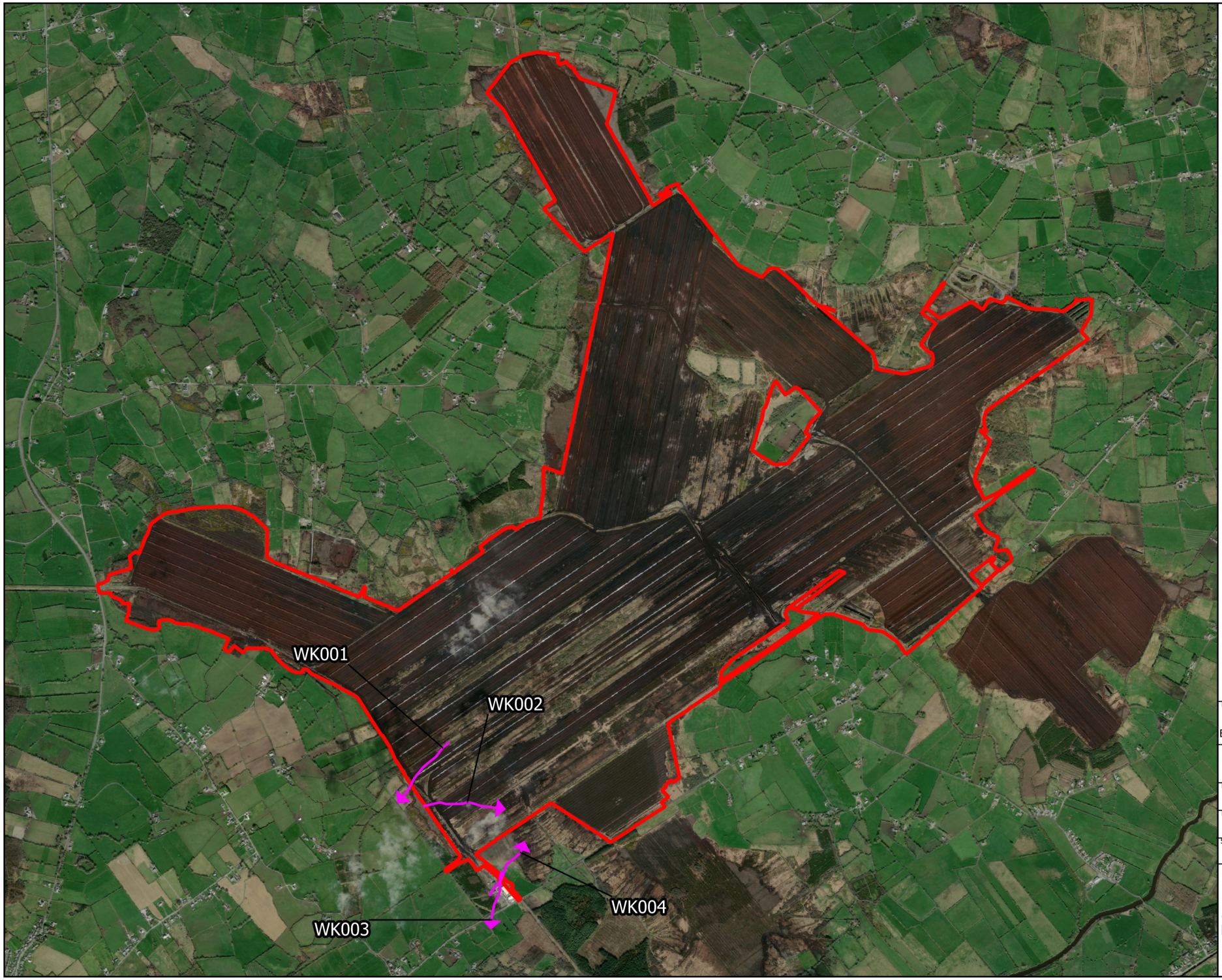
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 15.1d
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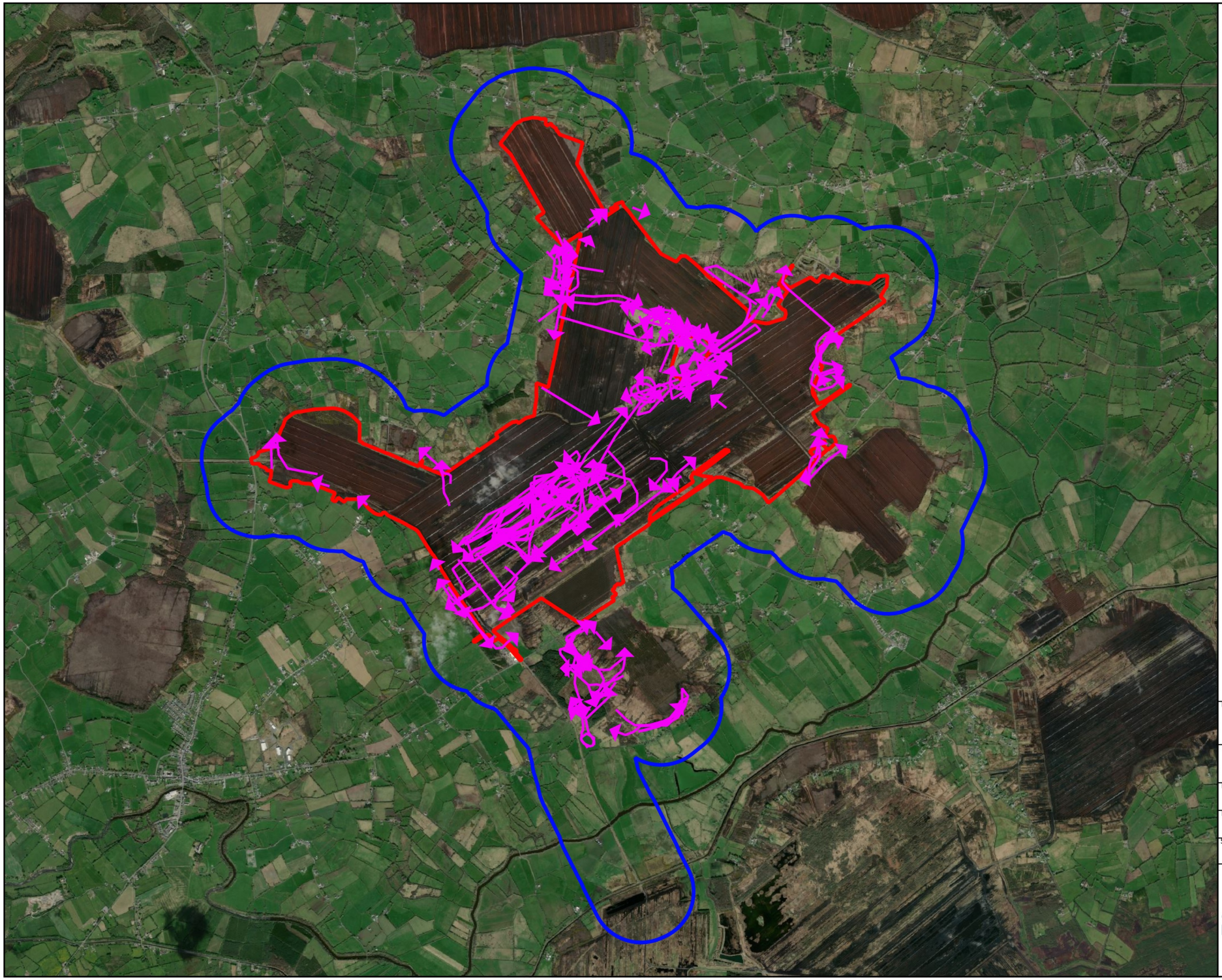
Woodcock
Breeding Walkover Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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Drawing Title

Woodcock Observations
Breeding Woodcock Surveys

Project Title

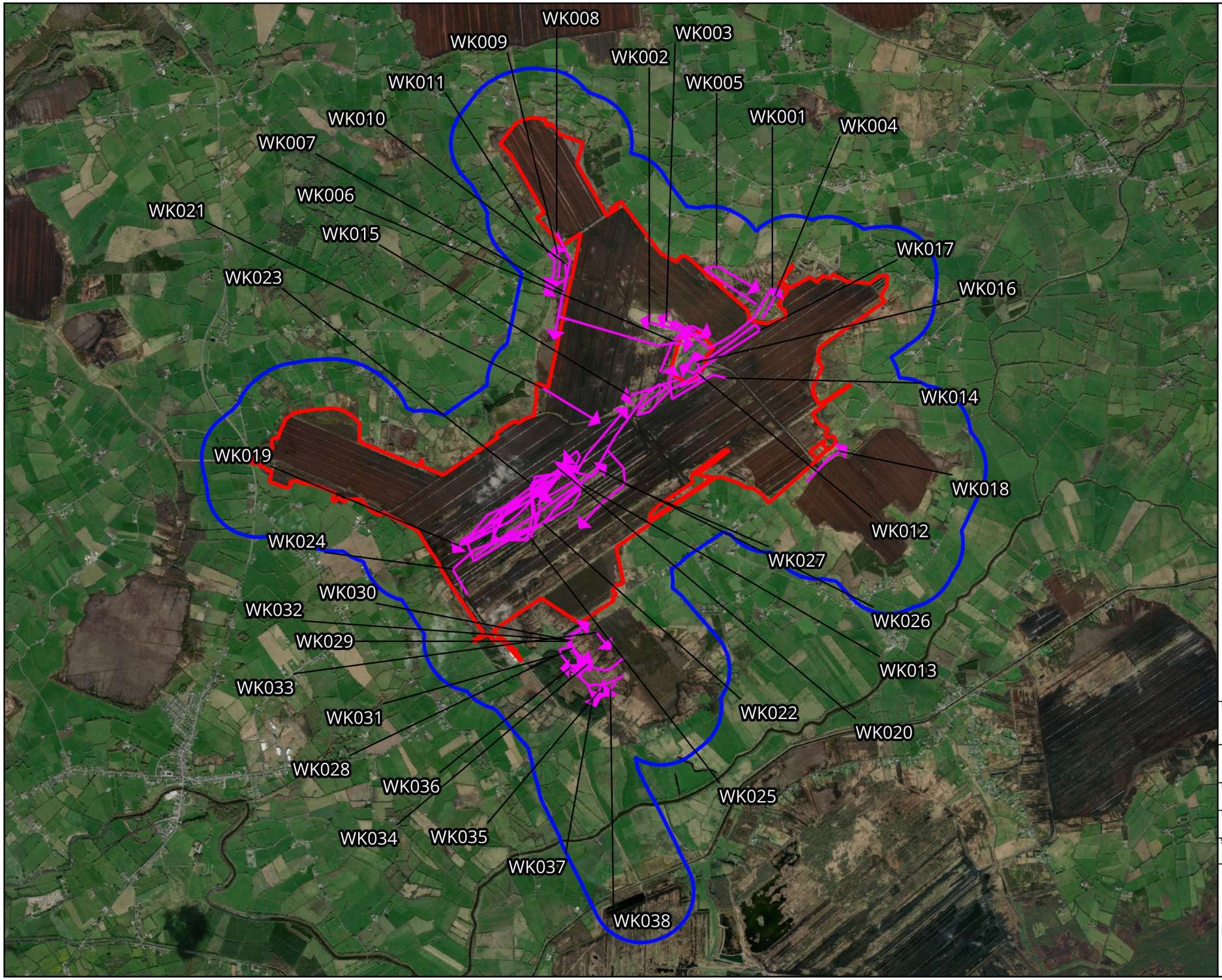
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 15.3
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Observations of Woodcock form Breeding Woodcock Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 15-3a – Breeding Woodcock Survey Data May 2021
- Figure 15-3b – Breeding Woodcock Survey Data June 2021
- Figure 15-3c – Breeding Woodcock Survey Data Breeding Season 2022
- Figure 15-3d – Breeding Woodcock Survey Data Breeding Season 2023
- Figure 15-3e – Breeding Woodcock Survey Data May 2024
- Figure 15-3f – Breeding Woodcock Survey Data June 2024



Map Legend

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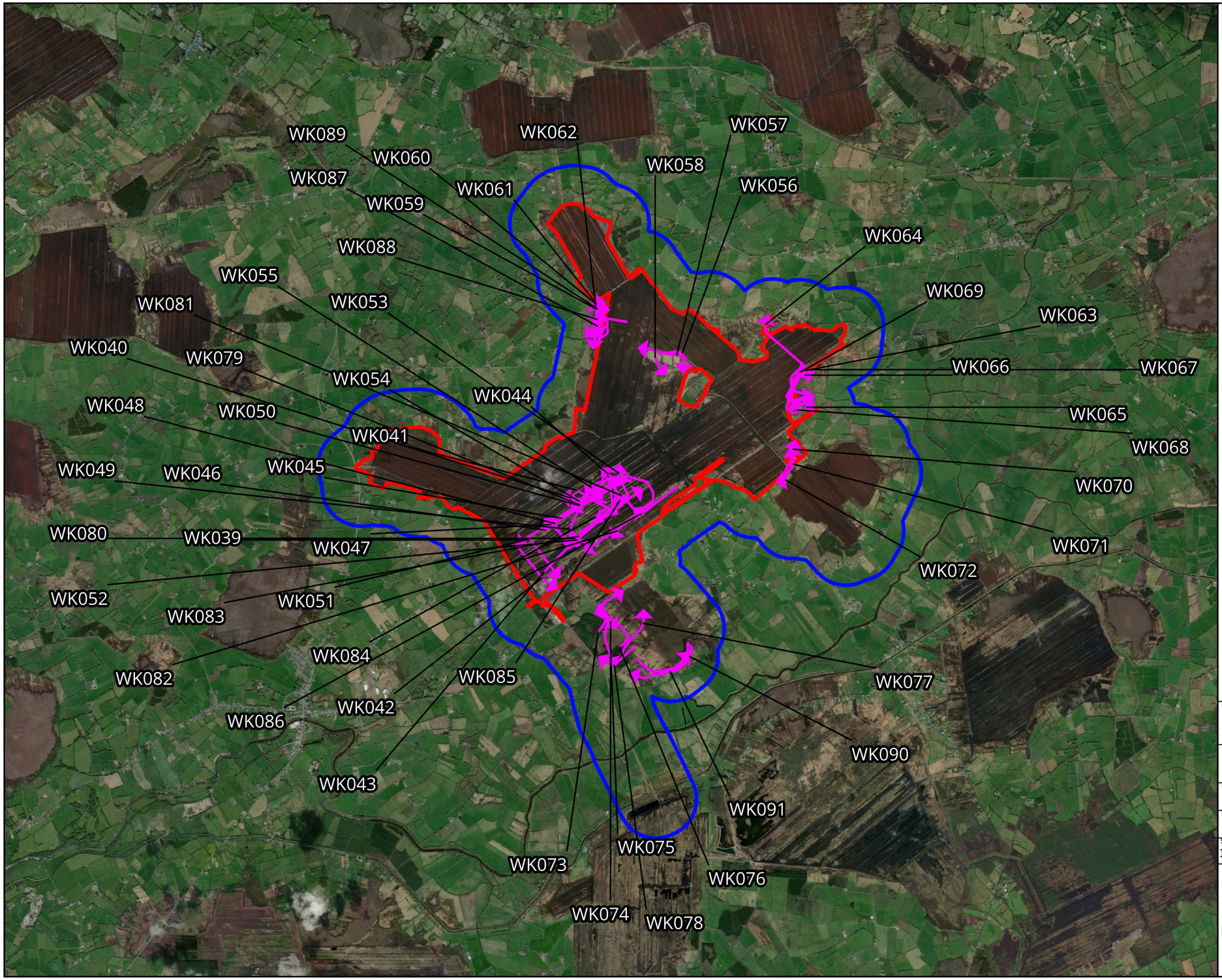
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Drawing Title
Woodcock Observations May 2021
Breeding Woodcock Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
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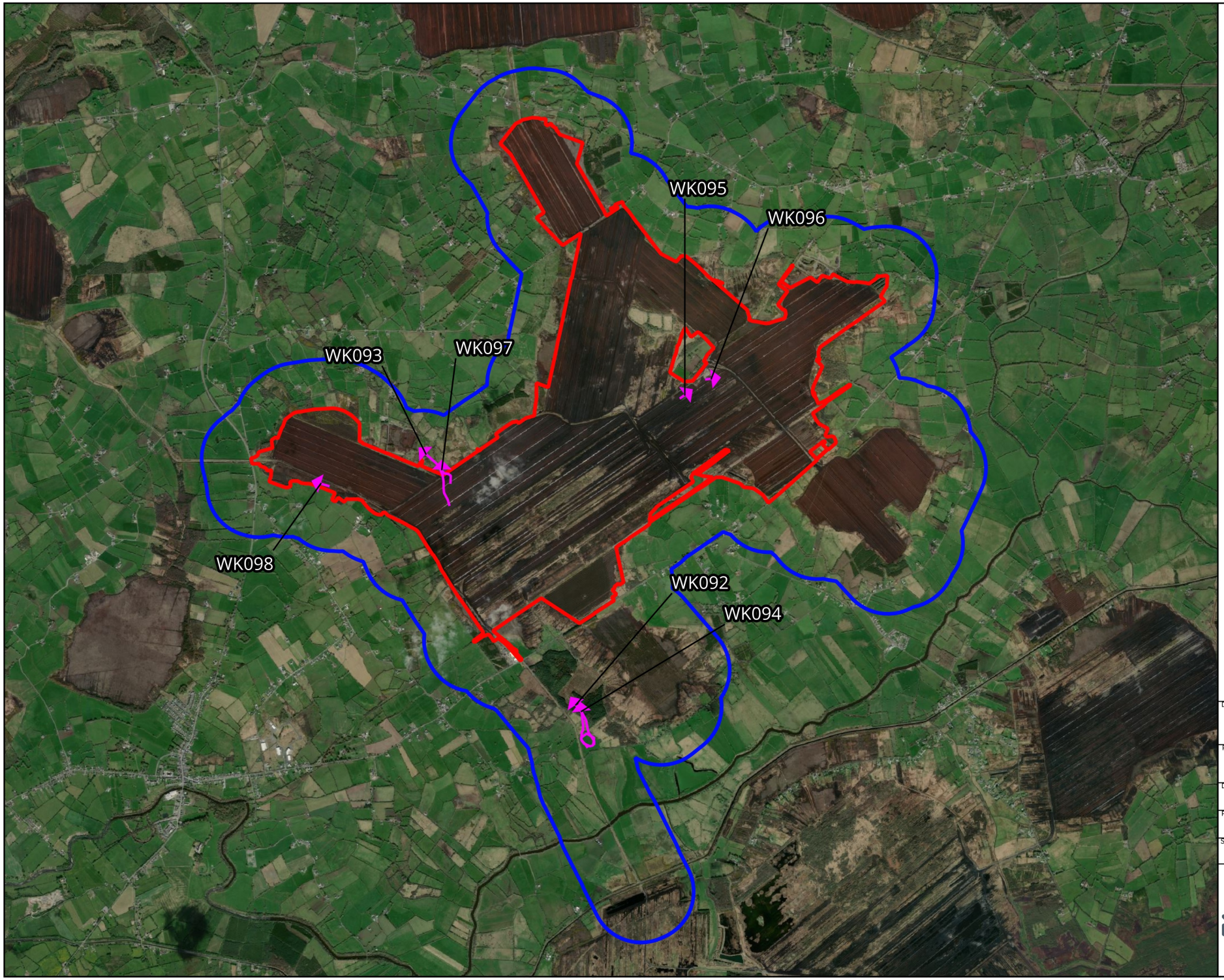
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- Survey Area
- Flight Observation

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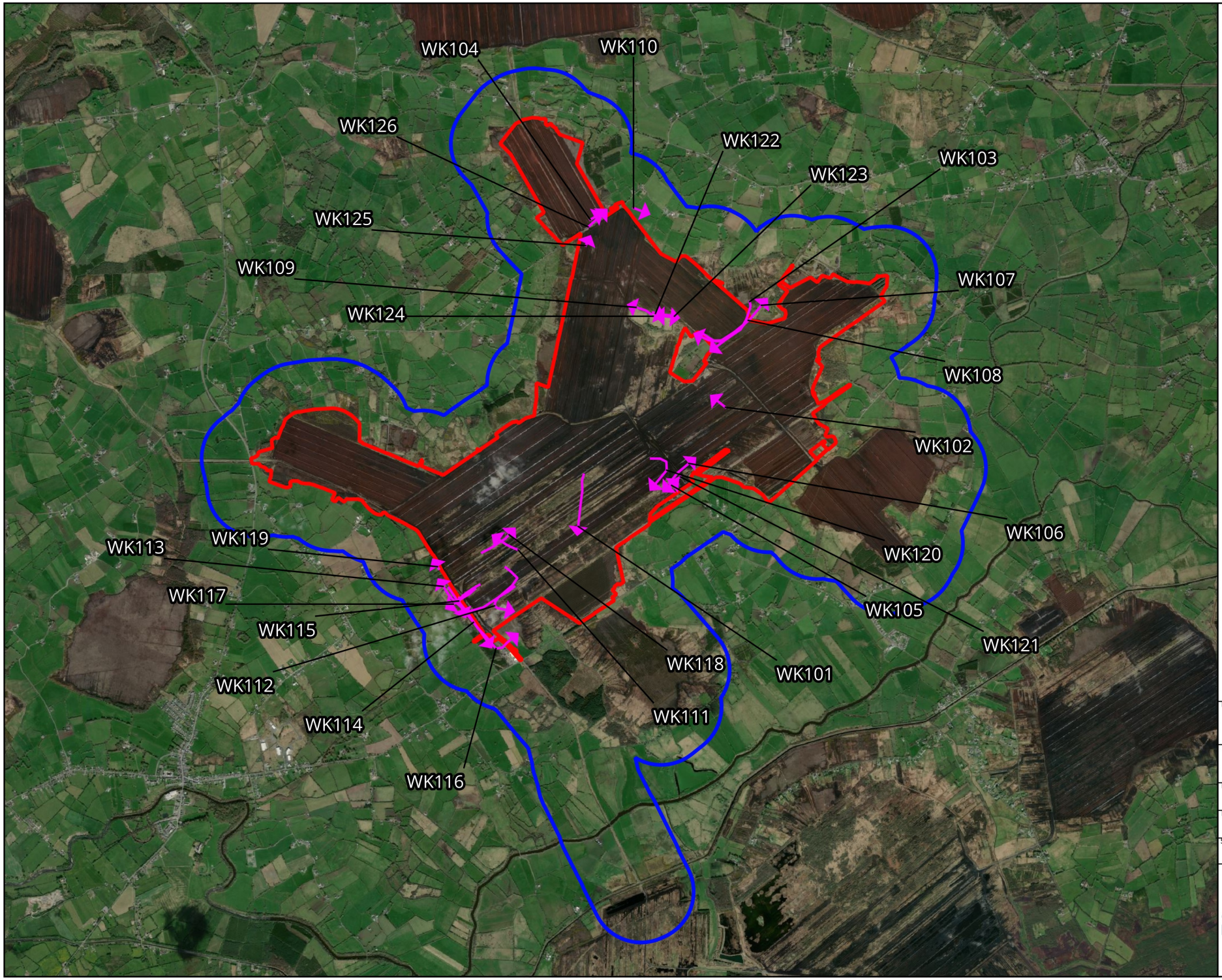
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Drawing Title
Woodcock Observations 2022
Breeding Woodcock Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 15.3c
Scale	Date
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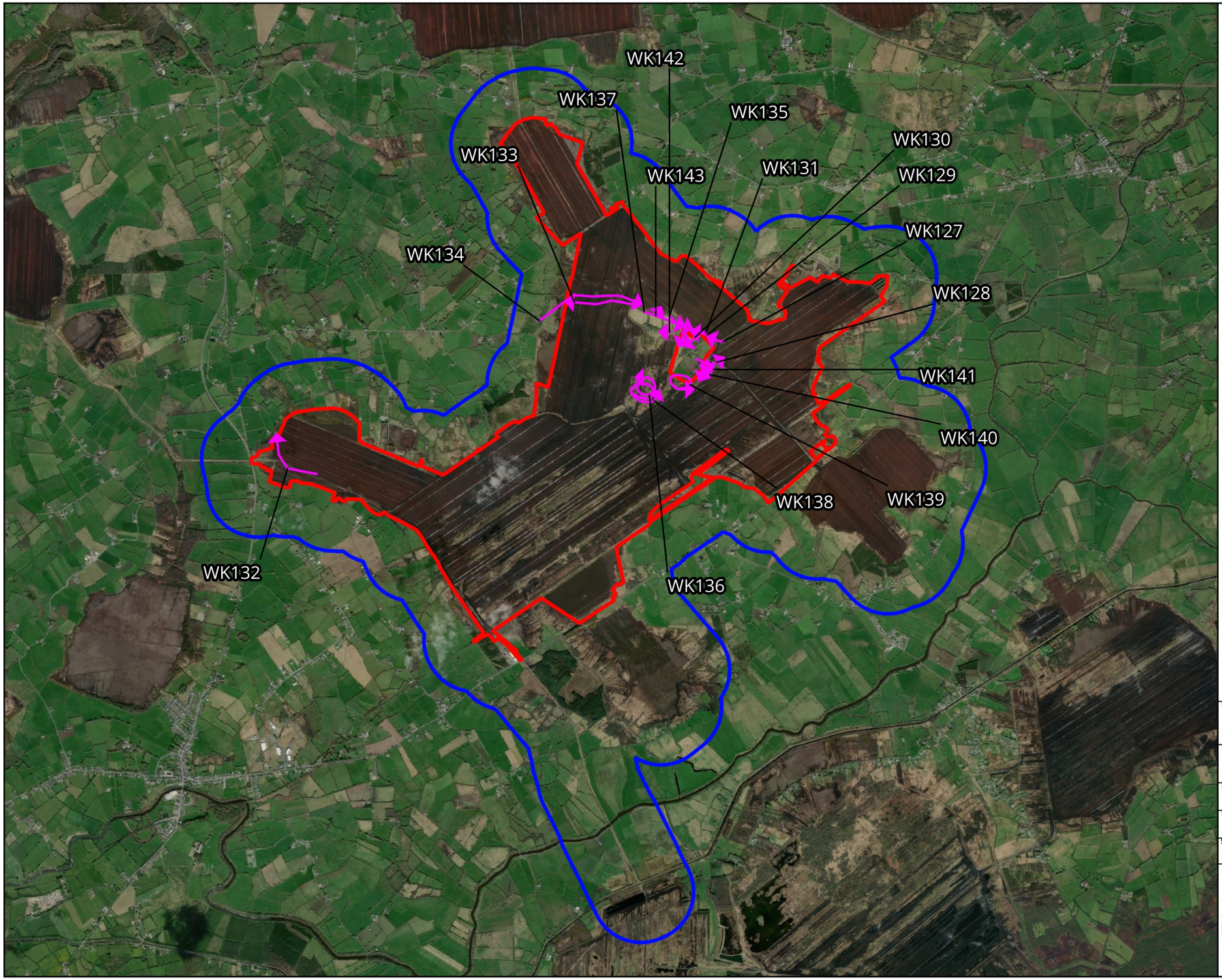
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Woodcock Observations 2023
Breeding Woodcock Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
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Project No.	Drawing No.
200804-e	Fig. 15.3d
Scale	Date
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Map Legend

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Drawing Title	Woodcock Observations May 2024 Breeding Woodcock Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 15.3e
Scale: 1:50,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

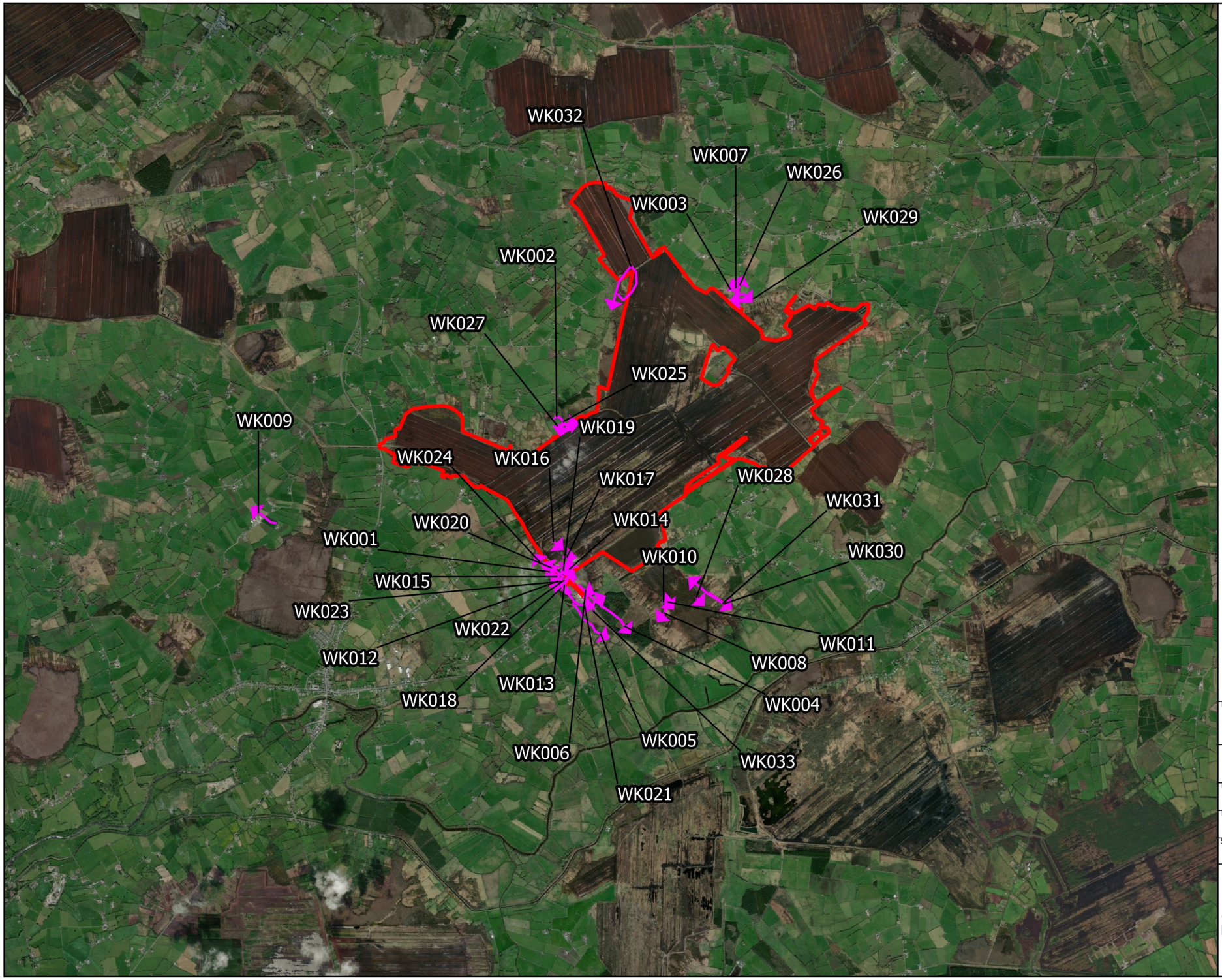
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Drawing Title
Woodcock Observations June 2024
Breeding Woodcock Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 15.3f
Scale	Date
1:50,000	17.07.2025

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Map Legend

Application Site Boundary

Observation

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Drawing Title

Woodcock
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 15.4
Scale	Date
1:65,000	17.07.2025

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16. BUZZARD

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 16-1 Buzzard Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ001	VP3	30/10/2020	11:07	Buzzard	1	32	32	0	0	0	cutover bog and scrub; travelling	JH
BZ002	VP3	30/10/2020	11:29	Buzzard	1	87	25	62	0	0	cutover bog and scrub; travelling	JH
BZ003	VP3	30/10/2020	11:38	Buzzard	2	66	10	56	0	0	cutover bog and hedgerows; hunting, landing in treeline	JH
BZ004	VP3	30/10/2020	12:07	Buzzard	1	231	0	0	187	44	cutover bog and scrub; soaring and hunting	JH
BZ005	VP3	30/10/2020	12:15	Buzzard	1	259	0	0	149	110	cutover bog and scrub; soaring	JH
BZ006	VP3	30/10/2020	12:39	Buzzard	1	220	0	0	0	220	upland blanket bog, cutover bog and scrub; soaring	JH
BZ007	VP2	06/11/2020	10:41	Buzzard	2	82	0	0	82	0	cutover bog and scrub; soaring	JH
BZ008	VP2	06/11/2020	14:19	Buzzard	1	40	10	30	0	0	cutover bog and scrub; travelling, landing in scrub	JH
BZ009	VP2	06/11/2020	12:01	Buzzard	1	65	65	0	0	0	cutover bog and scrub; travelling	JH
BZ010	VP2	06/11/2020	12:43	Buzzard	1	110	0	0	0	110	cutover bog and scrub; soaring	JH
BZ011	VP2	06/11/2020	12:44	Buzzard	1	47	0	0	47	0	cutover bog and scrub; travelling	JH
BZ012	VP3	10/11/2020	12:00	Buzzard	2	152	0	0	152	0	cutover bog and improved agricultural grassland; travelling	JH
BZ013	VP4	12/11/2020	10:29	Buzzard	1	52	10	42	0	0	conifer plantation, improved agricultural grassland and hedgerows; landing in treeline, perching in treeline	JH
BZ014	VP4	12/11/2020	10:49	Buzzard	1	44	0	44	0	0	improved agricultural grassland; travelling	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ015	VP4	12/11/2020	11:04	Buzzard	1	98	0	20	78	0	improved agricultural grassland and cutover bog; travelling	JH
BZ016	VP4	12/11/2020	11:20	Buzzard	2	129	0	0	0	129	improved agricultural grassland; soaring	JH
BZ017	VP4	12/11/2020	11:32	Buzzard	1	160	0	0	160	0	improved agricultural grassland, scrub and cutover bog; hunting	JH
BZ018	VP4	12/11/2020	11:41	Buzzard	1	62	10	10	42	0	cutover bog, scrub and improved agricultural grassland; hunting, descending into scrub	JH
BZ019	VP4	12/11/2020	13:00	Buzzard	1	134	0	0	134	0	cutover bog, conifer plantation and improved agricultural grassland; travelling	JH
BZ020	VP4	12/11/2020	13:10	Buzzard	1	30	10	20	0	0	conifer plantation and improved agricultural grassland; hunting, descending into wd4	JH
BZ021	VP4	12/11/2020	13:12	Buzzard	1	340	0	0	340	0	conifer plantation and improved agricultural grassland; travelling	JH
BZ022	VP5	13/11/2020	13:13	Buzzard	1	140	30	110	0	0	cutover bog and hedgerows; hunting, landing in treeline	JH
BZ023	VP6	17/11/2020	08:14	Buzzard	2	55	10	45	0	0	cutover bog, scrub and improved agricultural grassland; travelling, landing in ga1	JH
BZ024	VP6	17/11/2020	11:38	Buzzard	2	293	40	129	124	0	cutover bog, scrub and improved agricultural grassland; hunting, descending into scrub	JH
BZ025	VP6	17/11/2020	12:52	Buzzard	1	324	0	271	53	0	improved agricultural grassland and scrub; hunting	JH
BZ026	VP2	25/11/2020	13:14	Buzzard	1	20	20	0	0	0	cutover bog and scrub; hunting, descending into scrub	JH
BZ027	VP2	25/11/2020	13:25	Buzzard	1	30	30	0	0	0	cutover bog and scrub; hunting, perching on telegraph pole	JH
BZ028	VP4	26/11/2020	12:28	Buzzard	1	42	10	32	0	0	cutover bog and scrub; hunting, descending into scrub	JH
BZ029	VP2	08/12/2020	13:09	Buzzard	1	68	25	43	0	0	cutover bog, scrub and hedgerows; travelling, landing in treeline	JH
BZ030	VP1	10/12/2020	11:55	Buzzard	2	157	55	40	62	0	cutover bog, upland blanket bog and scrub; hunting and travelling on	JH
BZ031	VP4	15/12/2020	11:34	Buzzard	1	34	0	0	34	0	improved agricultural grassland and cutover bog; soaring	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ032	VP4	15/12/2020	11:42	Buzzard	1	131	10	25	96	0	improved agricultural grassland, conifer plantation and cutover bog; travelling, being mobbed by jd	JH
BZ033	VP4	15/12/2020	12:01	Buzzard	1	161	10	10	141	0	improved agricultural grassland, scrub and cutover bog; hunting, landing in hedgerow	JH
BZ034	VP4	15/12/2020	12:26	Buzzard	2	45	10	35	0	0	cutover bog and conifer plantation; hunting, descending into wd4	JH
BZ035	VP4	15/12/2020	12:31	Buzzard	1	51	15	36	0	0	cutover bog and conifer plantation; hunting, descending into wd4	JH
BZ036	VP4	15/12/2020	13:07	Buzzard	1	82	20	62	0	0	cutover bog and conifer plantation; travelling, disappearing into wd4	JH
BZ037	VP5	13/01/2021	09:57	Buzzard	1	26	26	0	0	0	cutover bog and scrub; gliding on wind, disappearing into scrub	JH
BZ038	VP2	22/01/2021	13:42	Buzzard	1	21	21	0	0	0	cutover bog and hedgerows; hunting, landing in hedgerow	JH
BZ039	VP1	03/02/2021	12:51	Buzzard	3	212	10	10	192	0	cutover bog, conifer plantation and improved agricultural grassland; soaring, descending into wd4	JH
BZ040	VP2	10/02/2021	14:19	Buzzard	1	168	0	0	168	0	cutover bog and scrub; soaring	JH
BZ041	VP2	10/02/2021	14:36	Buzzard	2	116	0	0	68	48	upland blanket bog, scrub and conifer plantation; soaring	JH
BZ042	VP2	10/02/2021	17:17	Buzzard	1	170	0	170	0	0	cutover bog and scrub; travelling	JH
BZ043	VP4	16/02/2021	13:09	Buzzard	1	279	0	0	279	0	cutover bog and improved agricultural grassland; soaring	JH
BZ044	VP4	16/02/2021	13:18	Buzzard	1	238	10	10	98	120	cutover bog and conifer plantation; hunting and soaring. being mibbed by hc, descending onto cutaway	JH
BZ045	VP4	16/02/2021	13:29	Buzzard	1	143	0	143	0	0	cutover bog, improved agricultural grassland and hedgerows; hunting, possibly landing in hedgerow	JH
BZ046	VP4	16/02/2021	13:45	Buzzard	1	426	0	80	250	96	cutover bog, conifer plantation and improved agricultural grassland; soaring	JH
BZ047	VP4	16/02/2021	14:32	Buzzard	1	310	0	140	170	0	cutover bog, scrub and improved agricultural grassland; soaring	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ048	VP4	16/02/2021	14:58	Buzzard	1	354	10	72	272	0	conifer plantation and cutover bog; soaring and hunting, descending into wd4	JH
BZ049	VP6	22/02/2021	12:43	Buzzard	1	155	0	95	60	0	cutover bog and scrub; soaring and hunting, landing in treeline	JH
BZ050	VP6	22/02/2021	15:11	Buzzard	1	293	0	293	0	0	scrub, cutover bog and improved agricultural grassland; travelling	JH
BZ051	VP6	26/02/2021	10:19	Buzzard	1	56	10	46	0	0	cutover bog and scrub; hunting, descending into scrub	JH
BZ052	VP6	26/02/2021	10:51	Buzzard	1	65	0	0	65	0	cutover bog and scrub; gliding on wind	JH
BZ053	VP6	26/02/2021	11:11	Buzzard	1	120	0	120	0	0	cutover bog and scrub; hunting	JH
BZ054	VP6	26/02/2021	11:35	Buzzard	1	25	25	0	0	0	cutover bog and improved agricultural grassland; travelling	JH
BZ055	VP6	26/02/2021	11:41	Buzzard	1	128	0	0	128	0	cutover bog and scrub; soaring and hunting	JH
BZ056	VP6	26/02/2021	11:49	Buzzard	1	106	20	86	0	0	scrub, cutover bog and hedgerows; travelling, possibly landing into treeline	JH
BZ057	VP6	26/02/2021	11:55	Buzzard	1	43	0	0	0	43	cutover bog, scrub and improved agricultural grassland; soaribg	JH
BZ058	VP6	26/02/2021	12:14	Buzzard	2	216	0	0	0	216	cutover bog and scrub; soaring	JH
BZ059	VP6	26/02/2021	12:27	Buzzard	1	390	0	0	240	150	cutover bog, scrub and improved agricultural grassland; soaring	JH
BZ061	VP2	04/03/2021	08:31	Buzzard	1	20	20	0	0	0	cutover bog and scrub; landing in scrub	JH
BZ063	VP4	10/03/2021	08:24	Buzzard	1	32	32	0	0	0	scrub and cutover bog; hunting, landing in treeline	JH
BZ066	VP5	11/03/2021	11:09	Buzzard	1	51	51	0	0	0	cutover bog and scrub; hunting, descending inti scrub	JH
BZ067	VP6	12/03/2021	10:54	Buzzard	1	149	0	0	149	0	improved agricultural grassland and cutover bog; soaring	JH
BZ068	VP6	12/03/2021	11:08	Buzzard	2	212	212	0	0	0	improved agricultural grassland, scrub and cutover bog; hunting, landing in treeline	JH
BZ069	VP2	18/03/2021	16:36	Buzzard	1	140		60	80		cutover bog; flying, height 70m dropping to 15m	PT

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ070	VP3	25/03/2021	19:09	Buzzard	1	0	0	0	0	0	#REF!	PT
BZ071	VP4	23/04/2021	14:01	Buzzard	1	50	50	0	0	0	cutover bog, conifer plantation and improved grassland; fly se, soars	SF
BZ072	VP3	26/04/2021	13:49	Buzzard	1	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; soar, fly ne	SF
BZ073	VP3	26/04/2021	14:38	Buzzard	1	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; soar, fly s	SF
BZ074	VP3	26/04/2021	16:04	Buzzard	1	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; soar, fly ne	SF
BZ075	VP5	27/04/2021	14:20	Buzzard	1	360	360	0	0	0	cutover bog, conifer plantation and improved grassland; soar, circle, fly s	SF
BZ076	VP5	27/04/2021	15:15	Buzzard	1	90	90	0	0	0	cutover bog, conifer plantation and improved grassland; fly nw	SF
BZ077	VP5	27/04/2021	15:50	Buzzard	1	35	35	0	0	0	cutover bog, conifer plantation and improved grassland; fly se	SF
BZ078	VP2	28/04/2021	14:02	Buzzard	1	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; soar, fly sw	SF
BZ079	VP2	28/04/2021	16:15	Buzzard	2	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; soar, fly ne	SF
BZ080	VP1	29/04/2021	14:33	Buzzard	1	40	40	0	0	0	cutover bog, conifer plantation and improved grassland; flys sw	SF
BZ081	VP6	30/04/2021	14:10	Buzzard	3	60	60	0	0	0	cutover bog, conifer plantation and improved grassland; fly se soars	SF
BZ082	VP6	30/04/2021	14:13	Buzzard	1	40	40	0	0	0	cutover bog, conifer plantation and improved grassland; fly ne	SF
BZ083	VP6	30/04/2021	14:36	Buzzard	1	40	40	0	0	0	cutover bog, conifer plantation and improved grassland; fly nw	SF
BZ084	VP6	30/04/2021	16:16	Buzzard	2	50	50	0	0	0	cutover bog, conifer plantation and improved grassland; soars, fly se	SF
BZ085	VP6	21/05/2021	09:10	Buzzard	1	149	0	0	30	112	improved agricultural grassland and mixed broadleaved/conifer woodland; gliding/hovering, gliding and circling at height before lowering altitude lost sight behind trees	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ086	VP6	21/05/2021	10:38	Buzzard	1	242	0	0	200	42	cutover bog, scrub and bog woodland; hovering/gliding/fighting, buzzard hovering being harassed by rook until another rook passed by and rook went away. buzzard then flew across section of bog behind wood patch and out of sight	SOB
BZ087	VP2	25/05/2021	07:30	Buzzard	1	31	31	0	8		bog woodland and cutover bog; evading, being mobbed by hooded crows	SOB
BZ088	VP2	25/05/2021	07:32	Buzzard	1	75	60	15	0		bog woodland and cutover bog; evading, being chased hy hooded crows perched for 1s under trees crows kept harassing it and it flew into trees	SOB
BZ089	VP2	25/05/2021	07:33	Buzzard	1	24	0	24	0		bog woodland and improved agricultural grassland; evading, emerged from tree canopy flew around trees trying to get away from crows then flew west along treeline	SOB
BZ090	VP2	25/05/2021	07:37	Buzzard	1	140	30	80	30		scrub and bog woodland; evading, trying to evade being mobbed by 2 hooded crows	SOB
BZ091	VP2	25/05/2021	07:42	Buzzard	1	70	0	15	60		bog woodland and improved agricultural grassland; hunting, left alone by hc pair when flew away from stand of trees. then started hovering	SOB
BZ092	VP5	26/05/2021	08:34	Buzzard	1	48	0	18	33	0	improved agricultural grassland and mixed broadleaved/conifer woodland; flying, flying over fields beyond treeline but along treeline, followed by rooks	SOB
BZ093	VP5	26/05/2021	10:15	Buzzard	1	41	0	15	26	0	improved agricultural grassland, treelines and siliceous scree and loose rock; , buzzard flying over fields adjacent to bog. not hunting	SOB
BZ094	VP5	26/05/2021	10:59	Buzzard	1	51	0	0	51	0	improved agricultural grassland and bog woodland; hunting, circling in air on the lookout for food. had to stop watching to watch kestrel	SOB
BZ095	VP3	27/05/2021	09:51	Buzzard	1	151	0	10	141	0	improved agricultural grassland and treelines; flying. searching, buzzard circling and scanning for prey below	SOB
BZ096	VP3	27/05/2021	10:45	Buzzard	1	476	0	20	180	275	improved agricultural grassland, mixed broadleaved/conifer woodland and cutover bog; hunting, bz circling around at great	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											height often using the wind to hover in place. at first ascended then slowly descended below tree height	
BZ097	VP1	03/06/2021	13:42	Buzzard	1	46	0	46	0	0	cutover bog and improved agricultural grassland; gliding, buzzard flying at around 30m in height croseed over to fields behind vp	SOB
BZ098	VP1	03/06/2021	13:44	Buzzard	2	32	0	10	22	7	improved agricultural grassland and treelines; gliding/circling, first bz joined by second bz they circled in air together then flew out of sight	SOB
BZ099	VP6	08/06/2021	13:37	Buzzard	1	296	1	1	264	0	cutover bog and bog woodland; hunting, buzzard hovering and circling for a number of mins before pouncing down on prey	SOB
BZ100	VP6	08/06/2021	14:21	Buzzard	1	30	0	1	26	0	improved agricultural grassland and treelines; hovering, buzzard seen hovering at distance then dove down below tree level	SOB
BZ101	VP6	08/06/2021	14:32	Buzzard	1	160	0	0	160	0	cutover bog; gliding, buzzard gliding around looking for prey	SOB
BZ102	VP6	08/06/2021	14:36	Buzzard	1	192	0	0	192	0	cutover bog; gliding, buzzard gliding in updraft looking for prey. one of two buzzards.	SOB
BZ103	VP6	08/06/2021	15:33	Buzzard	1	62	1	1	60	0	cutover bog; gliding hovering, buzzard pounced down after gliding in same spot against wind	SOB
BZ104	VP6	08/06/2021	15:51	Buzzard	1	328	0	18	280	30	cutover bog and improved agricultural grassland; gliding flying, buzzard gliding and flying from place to place presumably scanning for prey	SOB
BZ105	VP6	08/06/2021	17:42	Buzzard	1	302	1	3	298	0	improved agricultural grassland; hunting/hovering gliding, buzzard gliding and hovering over field for 5 mins. dived to ground	SOB
BZ106	VP6	08/06/2021	18:13	Buzzard	1	196	15	30	151	0	improved agricultural grassland, bog woodland and treelines; gliding flying, buzzard glided and hovered over trees and fields. flew low over field into trees	SOB
BZ107	VP6	08/06/2021	18:59	Buzzard	1	346	0	0	60	286	improved agricultural grassland and treelines; gliding evading crow, buzzard flying over 200m gliding and scanning.	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											spotted by crow flew to height to evade crow and continued scanning	
BZ108	VP2	14/06/2021	17:30	Buzzard	1	176	0	0	26	150	improved agricultural grassland and treelines; gliding flying, 1 of 2 buzzards. circled around other buzzard for a bit. glided up into the air then glided down then rose up again lost sight of this buzzard first	SOB
BZ109	VP2	14/06/2021	17:38	Buzzard	1	273	0	0	20	253	improved agricultural grassland, treelines and cutover bog; gliding riding air thermals flying, buzzard flew near other buzzard first. rode air thermals high up above 200m. then flew directly across bog	SOB
BZ111	VP2	14/06/2021	18:38	Buzzard	1	81	0	10	70	0	cutover bog and conifer plantation; riding thermals, gliding, appeared near forestry while other buzzard was flying. circled upwards in air for a while before losing sight of bird	SOB
BZ112	VP2	14/06/2021	18:41	Buzzard	1	632	0	30	319	283	cutover bog, improved agricultural grassland and conifer plantation; scanning for prey gliding, briefly joined by second buzzard	SOB
BZ113	VP2	14/06/2021	18:55	Buzzard	1	20	10	10	0	0	improved agricultural grassland and treelines; flying, buzzard flying alongside treeline dividing cutover bog from farmland lost sight due to flying below tree level	SOB
BZ114	VP2	14/06/2021	19:30	Buzzard	1	-	-	-	-	-	cutover bog and bog woodland; perching, perched on met mast wire	SOB
BZ115	VP2	14/06/2021	21:09	Buzzard	1	20	0	5	15	0	cutover bog and bog woodland; flying perching, buzzard flew off met mast wire down to trees then back up to met mast	SOB
BZ116	VP3	22/06/2021	17:51	Buzzard	1	-	-	-	-	-	bog woodland; preening, buzzard perched on tree in forested island inside the cutover bog. flew to another branch	SOB
BZ117	VP3	22/06/2021	19:51	Buzzard	1	240	0	5	75	160	cutover bog, improved agricultural grassland and scrub; hunting, hovering, buzzard hovering and flying circled up to height and started hovering at different spots then dived down	SOB
BZ118	VP3	22/06/2021	19:55	Buzzard	1	30	5	5	20	0	cutover bog; flying perching, flying to met mast in rain	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ119	VP3	22/06/2021	19:58	Buzzard	1	-	-	-	-	-	cutover bog; perched preening, buzzard perched on met mast	SOB
BZ120	VP3	22/06/2021	21:32	Buzzard	1	5	0	0	5	0	cutover bog; perching flying, flew off met mast then back on to mast	SOB
BZ121	VP4	23/06/2021	16:15	Buzzard	1	140	0	0	140	0	improved agricultural grassland, treelines and cutover bog; flying evading	SOB
BZ122	VP2	25/06/2021	06:52	Buzzard	1	45	0	45	0	0	bog woodland; flying, flying just above canopy not hunting	SOB
BZ123	VP5	25/06/2021	09:13	Buzzard	1	86	0	0	86	0	scrub, wet pedunculate oak-ash woodland and improved agricultural grassland; gliding evading, evading rook flying in circles then flew away	SOB
BZ124	VP5	25/06/2021	10:02	Buzzard	1	192	0	60	132	0	cutover bog, scrub and bog woodland; hovering, buzzard hovering at low height for some time, then increased elevation and flew low again behind trees	SOB
BZ125	VP4	25/06/2021	20:19	Buzzard	0	127	0	7	0	127	improved agricultural grassland and treelines; buzzard circling in sky above 200m before going oos	SOB
BZ126	VP1	01/07/2021	16:00	Buzzard	1	175	10	20	145	0	cutover bog and improved agricultural grassland; flying hunting, bz flew from fields into bog at low height. flew across bog ascended started gliding in circles looking for prey. flew further away lost sight in heat haze.	SOB
BZ127	VP1	01/07/2021	17:18	Buzzard	1	96	0	5	50	41	cutover bog, bog woodland and scrub; hunting hovering gliding, bz gliding in circles above 200 m. lowered elevation started hovering. stopped and started hovering at increasingly low heights till out of sight	SOB
BZ128	VP2	06/07/2021	21:39	Buzzard	1	-	-	-	-	-	mixed broadleaved woodland and cutover bog; sitting on telegraph wire, stayed there for 1:40h, left when the weather cleared briefly	JG
BZ129	VP3	07/07/2021	20:45	Buzzard	1	-	-	-	-	-	mixed broadleaved woodland and cutover bog; roosting, had previously been mobbed by two kestrels. stayed there for 1:30h	JG

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ130	VP4	08/07/2021	20:33	Buzzard	1	40	40	0	0	0	improved agricultural grassland; flying, flew over and perched on telegraph pole (beside big pylon)	JG
BZ131	VP5	13/07/2021	12:13	Buzzard	1	156	0	0	156	0	improved agricultural grassland; hunting, buzzard circling and gliding in air scanning below.	SOB
BZ136	VP5	13/07/2021	16:36	Buzzard	1	38	0	0	38	0	improved agricultural grassland and bog woodland; flying, buzzard flying away. lost sight of other two.	SOB
BZ137	VP5	13/07/2021	18:16	Buzzard	1	310	0	0	0	310	improved agricultural grassland, treelines and hedgerows; gliding, buzzard gliding very high in air, ascending in height and flying off into distance	SOB
BZ138	VP3	14/07/2021	14:40	Buzzard	1	75	0	20	55	0	improved agricultural grassland, treelines and hedgerows; gliding, flying, buzzard circling in sky above fields then flew lower to tree level	SOB
BZ139	VP3	14/07/2021	15:12	Buzzard	1	61	0	0	61	0	cutover bog; gliding, buzzard gliding high lost sight in heat haze	SOB
BZ140	VP3	14/07/2021	16:28	Buzzard	1	42	1	26	15	0	improved agricultural grassland, cutover bog and treelines; hunting, buzzard flying low and calling, then flew over field along treelines and dived down	SOB
BZ141	VP3	14/07/2021	17:05	Buzzard	1	-	-	-	-	-	hedgerows and improved agricultural grassland; preening, buzzard flew to hedgerow along stone wall. perched and started preening	SOB
BZ142	VP3	14/07/2021	17:23	Buzzard	1	-	-	-	-	-	cutover bog and scrub; perching, buzzard perched on met mast	SOB
BZ144	VP3	14/07/2021	18:09	Buzzard	1	133	0	73	60	0	improved agricultural grassland, treelines and hedgerows; flying, being mobbed, evading, buzzard flew over field scared away rooks but was mobbed by swallows	SOB
BZ145	VP3	14/07/2021	18:15	Buzzard	1	30	0	0	30	0	improved agricultural grassland and scrub; evading, being mobbed, buzzard, being mobbed by swallows. evaded them and perched on tree	SOB
BZ146	VP2	14/07/2021	18:18	Buzzard	1	-	-	-	-	-	treelines; perched on tree top	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ147	VP4	15/07/2021	12:41	Buzzard	1	95	0	0	35	60	improved agricultural grassland and treelines; calling, gliding, buzzard circling high in sky calling out. then descended in elevation and flew away	SOB
BZ148	VP4	15/07/2021	12:53	Buzzard	1	228	0	4	62	162	cutover bog, improved agricultural grassland and treelines; riding thermals, hunting, buzzard, circling over bog, riding thermals, took a swipe at a swallow, then glided quickly downwsrds in a linear path along bordering fields	SOB
BZ149	VP4	15/07/2021	13:10	Buzzard	1	28	4	24	0	0	improved agricultural grassland and treelines; flying low, buzzard flying low , lost sight behind trees	SOB
BZ150	VP4	15/07/2021	13:35	Buzzard	1	193	0	0	60	133	cutover bog, improved agricultural grassland and treelines; riding updrafts, gliding, buzzzard seen behind viewshed at first, close to vp4, riding updrafts high into sky then glided away. lost sight	SOB
BZ151	VP4	15/07/2021	18:26	Buzzard	1	297	0	2	171	124	improved agricultural grassland, scrub and immature woodland; hunting, riding updraft, buzzard circling over farmland adjacent to bog. started riding updrafts higher, then divdd down, then glided again for a few seconds, then dived down again, landed on tree.	SOB
BZ152	VP6	30/07/2021	14:25	Buzzard	1	129	2	65	62	0	improved agricultural grassland, mixed broadleaved/conifer woodland and treelines; hunting, buzzard flew from trees, started circling aroind riding thermals, then started hovering, then dived down	SOB
BZ153	VP6	30/07/2021	14:28	Buzzard	1	126	3	3	120	0	improved agricultural grassland, mixed broadleaved/conifer woodland and treelines; hunting, buzzard flew up again, started hovering in different spots, then dove down	SOB
BZ154	VP2	30/07/2021	15:53	Buzzard	1	52	0	5	47	0	mixed broadleaved/conifer woodland, improved agricultural grassland and treelines; hunting, bz flew out of tree started circling and gliding then dived down	SOB
BZ155	VP1	11/08/2021	12:20	Buzzard	1	19	19	0	0	0	bog woodland, cutover bog and treelines; flying, buzzard flew out of treeline, then flew	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											low along strips of woodland. followed by crows and a second buzzard	
BZ156	VP1	11/08/2021	12:21	Buzzard	1	56	10	25	21	0	cutover bog, bog woodland and treelines; flying, bz flew out of treelines following other buzzard and flew over strips of wood and cutover bog	SOB
BZ157	VP1	11/08/2021	12:22	Buzzard	1	25	5	20	0	0	cutover bog and bog woodland; flying, buzzard split off frim other bz then flew low into strips of wood	SOB
BZ158	VP1	11/08/2021	12:23	Buzzard	2	29	0	0	29	0	cutover bog and bog woodland; gliding, buzzards gliding in close proximity	SOB
BZ159	VP1	11/08/2021	13:10	Buzzard	1	52	0	20	32	0	bog woodland, cutover bog and improved agricultural grassland; flying, gliding, hunting, buzzard flew over bog aoong strips of wood, then rode thermal and started gliding, glided over farm fields.	SOB
BZ160	VP1	11/08/2021	17:22	Buzzard	1	41	0	41	0	0	cutover bog, bog woodland and mixed broadleaved woodland; flying, buzzard flying across stretch of peat bog across to wooded area on other side of bog	SOB
BZ161	VP1	11/08/2021	17:43	Buzzard	1	25	0	0	25	0	cutover bog; flying, buzzard flying across bog in distance, lost sight behind trees	SOB
BZ162	VP3	17/08/2021	12:32	Buzzard	2	40	10	30	0	0	treelines, improved agricultural grassland and cutover bog; flying, 2 buzzards flying low along treelines into field in middle of bog as rain srarted.	SOB
BZ163	VP3	17/08/2021	15:41	Buzzard	1	-	-	-	-	-	bog woodland, treelines and improved agricultural grassland; preening, buzzard perched on large old willow tree, preening.	SOB
BZ164	VP2	20/08/2021	13:51	Buzzard	2	66	0	16	50	0	cutover bog, scrub and treelines; gliding, buzzard circling around then descended and lost sight behind trees	SOB
BZ165	VP2	20/08/2021	14:05	Buzzard	1	84	0	1	83	0	improved agricultural grassland and treelines; hunting, circling, gliding, far away buzzard gliding, circling at height, dived down.	SOB
BZ166	VP2	20/08/2021	17:44	Buzzard	1	120	0	0	120	0	cutover bog and improved agricultural grassland; flight, passing through the area,	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ167	VP6	24/08/2021	13:02	Buzzard	1	6	6	0	0	0	improved agricultural grassland, hedgerows and treelines; flight, buzzard flew across field behind hawthorn tree and out of sight	SOB
BZ168	VP6	24/08/2021	15:42	Buzzard	1	89	0	0	26	63	improved agricultural grassland, treelines and hedgerows; soaring, buzzard soaring high in sky, flew nw then descended and lost sight of buzzard in distance.	SOB
BZ170	VP6	24/08/2021	16:35	Buzzard	1	20	10	10	0	0	cutover bog; fighting, dived at by other buzzard, lost sight due to focusing on other buzzard.	SOB
BZ171	VP4	25/08/2021	14:35	Buzzard	4	580	0	0	50	530	improved agricultural grassland and cutover bog; fighting, soaring, calling, buzzards circling over farmland beyond 500m bound emerging one after the other. increasing elevation and soaring high caloibg, sometimes diving at each other movibg across bog. lost sight due to the sun's glare	SOB
BZ172	VP4	25/08/2021	15:19	Buzzard	1	44	2	5	37	0	improved agricultural grassland, cutover bog and conifer plantation; gliding, buzzard emerged from behind trees glided in circles then descended gradually out of sight.	SOB
BZ173	VP4	25/08/2021	15:50	Buzzard	1	63	0	10	53	0	improved agricultural grassland and treelines; gliding,mcircling, buzzard seen circling in distanced descended out of sight behind trees.	SOB
BZ174	VP4	25/08/2021	16:31	Buzzard	1	197	1	34	162	0	improved agricultural grassland and treelines; being mobbed, gliding, flying, buzzard gliding and circling over fields adjacent to bog. mobbed by gang of swallows. kept gliding then eescended and started flying with wingbeats descending away from site.	SOB
BZ175	VP4	25/08/2021	18:01	Buzzard	1	10	10	0	0	0	treelines, bog woodland and improved agricultural grassland; flight, buzzard flying among trees surrounding fields adjacent to bog. seen briefly	SOB
BZ176	VP4	25/08/2021	18:38	Buzzard	1	264	4	50	210	0	improved agricultural grassland, treelines and scrub; soaring, evading, gliding, buzzard gliding circling above trees, mobbed by swallows and house martins. ascended,	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											glided in circles, then slowly glided downwards lost sight behind trees.	
BZ177	VP2	09/09/2021	16:15	Buzzard	1	261	0	32	75	154	cutover bog; flight soaring, buzzard flew north ascended in height soared in circles and then flew directly sw	SOB
BZ178	VP6	15/09/2021	14:20	Buzzard	2	37	0	10	27	0	cutover bog; flight, buzzard flying and calling went out of siggt. still heard buzzard calls	SOB
BZ179	VP6	15/09/2021	14:25	Buzzard	4	207	0	0	60	147	cutover bog and improved agricultural grassland; soaring, calling, territorial behaviour, 4 buzzards circling around each other, ascended to great height. 2 flew away.	SOB
BZ180	VP6	15/09/2021	14:27	Buzzard	2	50	0	0	0	50	cutover bog and improved agricultural grassland; flight, soaring., 2 remaining buzzards glided away.	SOB
BZ181	VP6	15/09/2021	15:07	Buzzard	1	157	21	36	100	0	improved agricultural grassland, treelines and cutover bog; gliding, flight, buzzard took off from tree circling upwards then perched on large hawthorn tree.	SOB
BZ182	VP6	15/09/2021	15:15	Buzzard	1	26	26	0	0	0	treelines, scrub and cutover bog; flight, buzzard flew from a tree while other bz perched. flew into treelines	SOB
BZ183	VP6	15/09/2021	16:56	Buzzard	1	320	5	37	268	0	cutover bog, bog woodland and scrub; flight, gliding, buzzard flying across bog. mostly gliding. flappingnocassionally. flew over to beyond met mast and flew down into trees.	SOB
BZ184	VP6	15/09/2021	17:12	Buzzard	1	136	26	36	74	7	improved agricultural grassland, treelines and conifer plantation; flight, buzzard emerged over field flew across agricultural land. lost sight as it flew over planted conifers.	SOB
BZ185	VP3	16/09/2021	14:50	Buzzard	3	260	0	0	53	207	improved agricultural grassland, cutover bog and treelines; soaring, calling, 3 buzzards circling around each other and calling. broke up and lost sight.	SOB
BZ186	VP3	16/09/2021	14:55	Buzzard	2	212	0	0	15	197	improved agricultural grassland and treelines; soaring,, 2 bz circling over fiekd under 200m. started ascending in height flying in circles. lost sight in sky.	SOB

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ187	VP3	16/09/2021	15:27	Buzzard	1	12	12	0	0	0	treelines and improved agricultural grassland; flight, buzzard seen flying into large trees bordering agricultural field.	SOB
BZ188	VP3	16/09/2021	15:36	Buzzard	1	84	64	20	0	0	cutover bog, scrub and bog woodland; flight, buzzard flying low across scrub in section of cutover bog	SOB
BZ189	VP3	16/09/2021	15:45	Buzzard	1	23	8	15	0	0	improved agricultural grassland and treelines; hovering, bz hovering over field. then flew lower beyond hill out of sight.	SOB
BZ190	VP4	22/09/2021	14:23	Buzzard	1	133	22	111	0	0	improved agricultural grassland, treelines and hedgerows; hovering, being mobbed, flight, buzzard hovering over field, being mobbed by house martins. flew away into treeline.	SOB
BZ191	VP4	22/09/2021	15:30	Buzzard	1	267	0	93	174	0	improved agricultural grassland, treelines and hedgerows; soaring, flight	SOB
BZ192	VP4	22/09/2021	16:12	Buzzard	1	199	2	15	148	34	cutover bog and treelines; fighting, 2 buzzards soaring around each other. calling and lunging at each other. one buzzard lost control of flight, dived down, regained control, then flew into treelines out of sight.	SOB
BZ193	VP4	22/09/2021	17:17	Buzzard	2	149	5	20	124	0	improved agricultural grassland, treelines and hedgerows; flight, hovering, 2 buzzards, emerged from treelines in fields started flying around each other against direction of wind. later joined by third buzzard	SOB
BZ194	VP4	22/09/2021	17:25	Buzzard	3	88	10	10	68	7	improved agricultural grassland, treelines and mixed broadleaved/conifer woodland; flight, 3rd buzzard joined other two. three birds flew in same direction, then descended out of sight behind trees.	SOB
BZ195	VP1	07/10/2021	09:21	Buzzard	1	-	-	-	-	-	cutover bog; calling, no visual.	CR
BZ196	VP1	07/10/2021	09:54	Buzzard	1	8	8	0	0	0	cutover bog and improved grassland; flying, flying low over rail tracks. last seen heading west.	CR
BZ197	VP1	07/10/2021	12:58	Buzzard	1	76	0	0	76	0	improved grassland; soaring, last seen heading west.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ198	VP3	18/10/2021	12:01	Buzzard	1	17	7	10	0	0	cutover bog; soaring, observed flying into line of trees.	CR
BZ199	VP4	19/10/2021	11:24	Buzzard	1	178	0	69	109	0	conifer plantation, cutover bog and improved grassland; soaring, large adult observed soaring over conifer woodland before heading north west.	CR
BZ200	VP4	19/10/2021	11:25	Buzzard	1	14	9	5	0	0	conifer plantation; flying, observed flying at low altitude under the flight path of the buzzard observed at 11:24. descended into the conifer woodland.	CR
BZ201	VP4	19/10/2021	11:30	Buzzard	2	166	12	49	105	0	conifer plantation, improved grassland and highly modified/non-native woodland; soaring, pair observed flying in close formation. last seen descending into line if trees to the east of vp4.	CR
BZ202	VP5	20/10/2021	08:39	Buzzard	1	32	32	0	0	0	cutover bog and improved grassland; flying, dark morph buzzard observed heading north before landing on a tree branch.	CR
BZ203	VP5	20/10/2021	08:40	Buzzard	1	-	-	-	-	-	improved grassland and cutover bog; perched, same buzzard observed at 08.39 am. remained perched on tree until 08:55 am.	CR
BZ204	VP5	20/10/2021	08:55	Buzzard	1	15	15	0	8	0	improved grassland and bog woodland; flying, flew into woodland to the north east of vp5.	CR
BZ205	VP1	01/11/2021	11:24	Buzzard	1	128	0	23	105	0	cutover bog and bog woodland; soaring, last observed heading south west.	CR
BZ206	VP1	01/11/2021	11:36	Buzzard	1	120	0	17	103	0	cutover bog, improved grassland and highly modified/non-native woodland; soaring, intially observed flying in close association with another buzzard. last seen heading north.	CR
BZ207	VP1	01/11/2021	11:36	Buzzard	1	94	0	5	89	0	cutover bog, improved grassland and highly modified/non-native woodland; soaring, intially flying in close association with the other buzzard observed at 11.36 am before diverting south.	CR
BZ208	VP2	02/11/2021	13:30	Buzzard	1	53	20	33	0	0	cutover bog and highly modified/non-native woodland; soaring, last seen heading east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ209	VP2	02/11/2021	15:39	Buzzard	1	245	10	25	210	0	cutover bog and highly modified/non-native woodland; flying, large adult observed heading north west.	CR
BZ210	VP2	02/11/2021	15:48	Buzzard	1	-	-	-	-	-	cutover bog; roosting, dark morph buzzard obsereved perched on tree until 15:59.	CR
BZ211	VP2	02/11/2021	15:59	Buzzard	1	3	3	0	0	0	cutover bog and highly modified/non-native woodland; flying, buzzard observed departing tree heading north.	CR
BZ212	VP4	04/11/2021	12:14	Buzzard	3	165	8	48	109	0	cutover bog and bog woodland; soaring, one adult and two jeveniles observed heading north before descending into woodland.	CR
BZ213	VP4	04/11/2021	12:20	Buzzard	1	268	13	90	165	0	cutover bog, bog woodland and conifer plantation; soaring, adukt buzzard observed heading north before landing in conifer woodland. likely same adult buzzard observed at 12:14 pm.	CR
BZ214	VP5	05/11/2021	11:48	Buzzard	1	-	-	-	-	-	bog woodland and cutover bog; calling, no visual but heard calling for one minute.	CR
BZ215	VP5	05/11/2021	12:58	Buzzard	1	9	0	0	0	9	cutover bog; soaring, observed soaring whilst observering five whooper swans.	CR
BZ216	VP6	08/11/2021	11:30	Buzzard	1	-	-	-	-	-	improved grassland and cutover bog; calling, heard calling south east of vp but no visual.	CR
BZ217	VP6	08/11/2021	11:41	Buzzard	1	124	9	41	74	0	improved grassland, highly modified/non-native woodland and cutover bog; soaring, observed getting mobbed by crows. last seen heading north east.	CR
BZ218	VP6	08/11/2021	13:07	Buzzard	1	203	0	13	190	0	highly modified/non-native woodland and improved grassland; soaring, observed soaring over woodland before descending.	CR
BZ219	VP1	02/12/2021	08:24	Buzzard	1	27	27	0	0	0	improved grassland; flying, observed heading south.	CR
BZ220	VP3	06/12/2021	09:57	Buzzard	1	28	8	20	0	0	highly modified/non-native woodland and cutover bog; flying, last seen heading east.	CR
BZ221	VP3	06/12/2021	15:05	Buzzard	1	38	7	31	0	0	improved grassland; flying, last seen heading east.	CR
BZ222	VP6	13/12/2021	09:47	Buzzard	1	48	48	0	0	0	improved grassland and highly modified/non-native woodland; flying,	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
											observed heading east before descending into trees.	
BZ223	VP5	05/01/2022	12:37	Buzzard	2	45	7	38	0	0	improved grassland, highly modified/non-native woodland and cutover bog; flying, pair observed heading west before descending into woodland.	CR
BZ224	VP5	05/01/2022	12:41	Buzzard	2	14	14	0	0	0	highly modified/non-native woodland; flying, likely same pair observed at 12:37. descended into woodland.	CR
BZ225	VP5	05/01/2022	13:38	Buzzard	1	11	11	0	0	0	highly modified/non-native woodland and improved grassland; flying, landed on tree where it remained perched until 13:46.	CR
BZ226	VP5	05/01/2022	13:38	Buzzard	1	-	-	-	-	-	improved grassland; roosting, remained perched on tree until 13:46.	CR
BZ227	VP5	05/01/2022	13:46	Buzzard	1	119	119	0	0	0	improved grassland and cutover bog; flying, last seen heading south east.	CR
BZ228	VP5	05/01/2022	15:12	Buzzard	1	-	-	-	-	-	improved grassland; roosting, perched on tree until 15:19.	CR
BZ229	VP5	05/01/2022	15:19	Buzzard	1	16	16	0	0	0	improved grassland; flying, heading north.	CR
BZ230	VP3	19/01/2022	12:50	Buzzard	1	57	57	0	0	0	improved grassland; flying, heading north east.	CR
BZ231	VP4	20/01/2022	12:00	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland and short rotation coppice; calling, heard calling to the south west.	CR
BZ232	VP1	03/02/2022	11:24	Buzzard	1	263	0	0	145	118	cutover bog; flying	NS
BZ233	VP5	21/02/2022	11:12	Buzzard	1	185	0	0	185	0	cutover bog; flying	NS
BZ234	VP5	21/02/2022	12:01	Buzzard	1	20	0	20	0	0	cutover bog; flying	NS
BZ235	VP5	21/02/2022	12:51	Buzzard	1	60	0	20	40	0	cutover bog; flying, being bombed by rooks	NS
BZ236	VP2	22/02/2022	10:24	Buzzard	1	40	0	0	40	0	cutover bog; flying	NS
BZ237	VP2	22/02/2022	11:13	Buzzard	2	240	0	60	180	0	cutover bog; flying	NS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ238	VP4	25/02/2022	08:53	Buzzard	1	120	0	60	60	0	cutover bog; flying, bombed by hooded crow	NS
BZ239	VP4	25/02/2022	11:12	Buzzard	1	402	0	82	320	0	cutover bog; flying	NS
BZ240	VP4	25/02/2022	11:34	Buzzard	1	60	0	0	60	0	cutover bog; flying	NS
BZ241	VP4	25/02/2022	12:15	Buzzard	1	138	0	0	138	0	cutover bog; soaring	NS
BZ242	VP4	25/02/2022	12:21	Buzzard	1	1099	0	0	0	1099	cutover bog; soaring	NS
BZ243	VP3	28/02/2022	09:17	Buzzard	1	20	0	20	0	0	cutover bog; flying, perched in tree then flew	NS
BZ244	VP3	28/02/2022	09:22	Buzzard	1	-	-	-	-	-	cutover bog; perched	NS
BZ245	VP3	28/02/2022	09:49	Buzzard	1	28	0	28	0	0	cutover bog; flying	NS
BZ246	VP3	28/02/2022	11:09	Buzzard	1	-	-	-	-	-	cutover bog; perched	NS
BZ247	VP6	01/03/2022	09:24	Buzzard	2	140	0	140	0	0	cutover bog; flying	NS
BZ248	VP6	01/03/2022	09:25	Buzzard	2	25	25	0	0	0	cutover bog; flying	NS
BZ249	VP6	01/03/2022	10:01	Buzzard	1	-	-	-	-	-	cutover bog; perched in tree	NS
BZ250	VP6	01/03/2022	10:16	Buzzard	1	-	-	-	-	-	cutover bog; sitting in field	NS
BZ251	VP6	01/03/2022	10:21	Buzzard	1	3	3	0	0	0	cutover bog; flying, flying between field and tree	NS
BZ252	VP6	01/03/2022	10:41	Buzzard	1	130	0	130	0	0	cutover bog; flying	NS
BZ253	VP6	01/03/2022	10:51	Buzzard	1	240	0	0	240	0	cutover bog; flying	NS
BZ254	VP6	01/03/2022	10:55	Buzzard	1	-	-	-	-	-	cutover bog; calling, buzzard heard not seen	NS
BZ255	VP6	01/03/2022	11:08	Buzzard	1	486	0	100	386	0	cutover bog; flying	NS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ256	VP6	01/03/2022	11:09	Buzzard	1	400	0	400	0	0	cutover bog; flying, met up with another buzzard that flew sw	NS
BZ257	VP5	08/03/2022	14:50	Buzzard	1	88	19	29	40	0	cutover bog, highly modified/non-native woodland and improved grassland; flying, heading south east.	CR
BZ258	VP5	08/03/2022	17:43	Buzzard	1	140	5	46	89	0	improved grassland, highly modified/non-native woodland and cutover bog; flying, heading north.	CR
BZ259	VP3	09/03/2022	16:45	Buzzard	1	-	-	-	-	-	scrub and cutover bog; roosting, perched until 18:09.	CR
BZ260	VP3	09/03/2022	18:09	Buzzard	1	12	12	0	0	0	scrub; flying, heading east	CR
BZ261	VP6	11/03/2022	13:32	Buzzard	1	75	0	75	0	0	cutover bog; flying	NS
BZ262	VP6	11/03/2022	16:59	Buzzard	1	90	60	30	0	0	cutover bog; flying	NS
BZ263	VP6	11/03/2022	17:06	Buzzard	1	-	-	-	-	-	cutover bog; b	NS
BZ264	VP1	14/03/2022	13:58	Buzzard	1	68	0	68	0	0	cutover bog; flying	NS
BZ265	VP1	14/03/2022	15:02	Buzzard	1	86	0	0	86	0	cutover bog; flying	NS
BZ266	VP1	14/03/2022	16:00	Buzzard	1	19	0	19	0	0	cutover bog; flying	NS
BZ267	VP4	14/03/2022	16:32	Buzzard	1	346	43	22	130	151	conifer plantation, cutover bog and improved grassland; flying, pair of buzzards last seen heading west.	CR
BZ268	VP3	11/04/2022	08:08	Buzzard	1	48	48	0	0	0	cutover bog; flying	NS
BZ269	VP3	11/04/2022	11:15	Buzzard	1	560	30	20	510	0	cutover bog; flying, bombed by hooded crows and flew out of sight.	NS
BZ270	VP3	11/04/2022	11:55	Buzzard	1	-	-	-	-	-	cutover bog; calling, heard calling not seen.	NS
BZ271	VP5	13/04/2022	09:17	Buzzard	1	-	-	-	-	-	cutover bog; perched	NS
BZ272	VP5	13/04/2022	11:04	Buzzard	1	146	0	0	146	0	cutover bog; flying	NS

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ273	VP5	13/04/2022	11:23	Buzzard	1	539	0	0	539	0	cutover bog; flying	NS
BZ274	VP5	13/04/2022	12:08	Buzzard	1	197	0	0	197	0	cutover bog; flying	NS
BZ275	VP4	19/04/2022	10:39	Buzzard	2	360	0	0	360	0	cutover bog; flying	NS
BZ276	VP2	21/04/2022	09:13	Buzzard	1	-	-	-	-	-	cutover bog; perched	NS
BZ277	VP2	21/04/2022	09:16	Buzzard	1	16	16	0	0	0	cutover bog; flying, same buzzard as in the tree, moved due to hooded crow bombing.	NS
BZ278	VP2	21/04/2022	09:25	Buzzard	1	24	24	0	0	0	cutover bog; flying	NS
BZ279	VP2	21/04/2022	09:31	Buzzard	1	44	44	0	0	0	cutover bog; flying	NS
BZ280	VP2	21/04/2022	11:07	Buzzard	2	540	0	120	130	290	cutover bog; flying	NS
BZ281	VP2	21/04/2022	11:22	Buzzard	2	120	0	0	0	120	cutover bog; flying	NS
BZ282	VP2	21/04/2022	11:33	Buzzard	2	300	0	0	300	0	cutover bog; flying	NS
BZ283	VP2	21/04/2022	11:34	Buzzard	2	280	0	0	280	0	cutover bog; flying	NS
BZ284	VP1	24/05/2022	20:01	Buzzard	2	10	10	0	0	0	cutover bog and scrub; flying	CR
BZ285	VP1	24/05/2022	20:02	Buzzard	1	204	11	40	153	0	cutover bog and scrub; hunting, unsuccesfully hunted irish hare.	CR
BZ286	VP1	24/05/2022	20:05	Buzzard	1	-	-	-	-	-	cutover bog; on the ground., same buzzard observed at 20:02.	CR
BZ287	VP1	24/05/2022	20:07	Buzzard	1	15	15	0	0	0	cutover bog and scrub; flying, same buzzard observed hunting at 20.02. last seen heading north.	CR
BZ288	VP1	24/05/2022	20:22	Buzzard	1	356	4	19	333	0	cutover bog and scrub; hunting, observed heading east before diving into scrub.	CR
BZ289	VP2	25/05/2022	20:51	Buzzard	1	9	9	0	0	0	scrub; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ290	VP6	26/05/2022	19:57	Buzzard	1	62	2	13	47	0	highly modified/non-native woodland, improved grassland and cutover bog; soaring, observed descending into woodland.	CR
BZ291	VP6	26/05/2022	20:55	Buzzard	1	92	4	18	70	0	highly modified/non-native woodland and cutover bog; soaring, heading north.	CR
BZ292	VP3	31/05/2022	20:04	Buzzard	1	-	-	-	-	-	bog woodland; roosting	CR
BZ293	VP5	03/06/2022	14:14	Buzzard	1	365	4	21	340	0	bog woodland, cutover bog and improved grassland; soaring	CR
BZ294	VP5	03/06/2022	14:52	Buzzard	1	179	3	26	150	0	bog woodland; soaring	CR
BZ295	VP5	03/06/2022	17:50	Buzzard	1	286	0	5	29	252	cutover bog, bog woodland and improved grassland; soaring, heading south.	CR
BZ296	VP5	03/06/2022	19:03	Buzzard	1	472	2	11	177	282	cutover bog and bog woodland; soaring	CR
BZ297	VP1	14/06/2022	13:32	Buzzard	1	450	0	7	43	400	cutover bog, scrub and improved grassland; soaring, last seen heading north west.	CR
BZ298	VP1	14/06/2022	14:24	Buzzard	1	202	12	40	150	0	cutover bog and improved grassland; soaring, heading west.	CR
BZ299	VP1	14/06/2022	14:24	Buzzard	1	332	0	4	38	290	cutover bog, scrub and improved grassland; soaring	CR
BZ300	VP1	14/06/2022	17:28	Buzzard	1	144	24	32	88	0	conifer plantation and cutover bog; flying, mobbed by kestrel	CR.
BZ301	VP2	16/06/2022	13:57	Buzzard	1	294	34	120	140	0	bog woodland and cutover bog; soaring	CR
BZ302	VP2	16/06/2022	14:08	Buzzard	1	254	29	45	180	0	bog woodland; soaring	CR
BZ303	VP2	16/06/2022	16:39	Buzzard	1	10	10	0	0	0	scrub; flying, heading south.	CR
BZ304	VP2	16/06/2022	17:20	Buzzard	1	122	2	10	110	0	cutover bog and scrub; flying, heading north.	CR
BZ305	VP2	16/06/2022	17:30	Buzzard	1	128	8	20	100	0	bog woodland and cutover bog; soaring	CR
BZ306	VP6	21/06/2022	15:46	Buzzard	1	245	35	110	100	0	cutover bog, scrub and conifer plantation; soaring, heading east.	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ307	VP6	21/06/2022	16:02	Buzzard	1	1279	0	19	540	720	cutover bog and improved grassland; soaring, joined by another buzzard at 16:17 pm.	CR
BZ308	VP6	21/06/2022	16:14	Buzzard	1	540	0	0	180	360	cutover bog; soaring	CR
BZ309	VP6	21/06/2022	16:35	Buzzard	1	6	6	0	0	0	improved grassland; flying	CR
BZ310	VP6	21/06/2022	18:33	Buzzard	1	60	9	51	0	0	scrub and conifer plantation; flying, getting mobbed by pair of kestrels.	CR
BZ312	VP4	23/06/2022	14:45	Buzzard	1	113	2	10	23	78	cutover bog, highly modified/non-native woodland and improved grassland; soaring, last seen heading north west.	CR
BZ313	VP4	23/06/2022	14:46	Buzzard	1	-	-	-	-	-	cutover bog and highly modified/non-native woodland; calling, heard calling.	CR
BZ314	VP4	23/06/2022	16:33	Buzzard	1	277	0	0	132	145	cutover bog and highly modified/non-native woodland; soaring, heading north into the clouds.	CR
BZ315	VP4	23/06/2022	18:27	Buzzard	1	77	5	30	42	0	cutover bog and conifer plantation; flying, heading north.	CR
BZ316	VP5	01/07/2022	16:00	Buzzard	1	204	16	188	0	0	bog woodland; soaring	CR
BZ317	VP5	01/07/2022	16:08	Buzzard	1	37	24	13	0	0	cutover bog; flying	CR
BZ318	VP5	01/07/2022	16:41	Buzzard	1	62	5	12	45	0	bog woodland and cutover bog; soaring	CR
BZ319	VP5	01/07/2022	17:09	Buzzard	1	275	16	49	210	0	bog woodland; soaring	CR
BZ320	VP5	01/07/2022	17:42	Buzzard	1	35	7	28	0	0	bog woodland and improved grassland; flying	CR
BZ321	VP6	09/07/2022	15:49	Buzzard	1	121	0	0	50	71	bog woodland and cutover bog; soaring	CR
BZ322	VP6	09/07/2022	16:24	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ323	VP6	09/07/2022	16:47	Buzzard	1	186	6	9	171	0	cutover bog and bog woodland; soaring	CR
BZ324	VP3	13/07/2022	15:05	Buzzard	1	134	0	0	45	89	cutover bog and bog woodland; soaring	CR

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BZ325	VP3	13/07/2022	16:38	Buzzard	2	258	10	36	212	0	cutover bog, improved grassland and bog woodland; flying	CR
BZ326	VP4	20/07/2022	17:52	Buzzard	1	86	5	11	80	0	cutover bog and conifer plantation; flying	CR
BZ327	VP2	08/08/2022	17:28	Buzzard	1	-	-	-	-	-	scrub; calling, heard calling	CR
BZ328	VP1	09/08/2022	15:25	Buzzard	3	145	0	0	40	105	cutover bog and scrub; flying	CR
BZ329	VP4	17/08/2022	18:04	Buzzard	1	327	0	0	118	209	improved grassland and conifer plantation; soaring	CR
BZ330	VP6	26/08/2022	10:30	Buzzard	1	570	0	0	90	480	cutover bog, highly modified/non-native woodland and scrub; soaring, last seen heading south at high altitude with three other buzzards.	CR
BZ331	VP6	26/08/2022	10:35	Buzzard	3	255	0	0	0	255	cutover bog, highly modified/non-native woodland and scrub; soaring, soaring at high altitude. last seen heading south.	CR
BZ332	VP6	26/08/2022	14:10	Buzzard	2	120	7	12	100	0	highly modified/non-native woodland and cutover bog; soaring, last seen heading north.	CR
BZ333	VP6	06/09/2022	15:50	Buzzard	1	16	16	0	0	0	scrub and improved grassland; flying/calling, juvenile heading west.	CR
BZ334	VP6	06/09/2022	16:10	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ335	VP1	13/09/2022	16:26	Buzzard	3	514	0	150	364	0	cutover bog, scrub and improved grassland; flying, three buzzards heading west.	CR
BZ336	VP4	07/10/2022	09:30	Buzzard	1	-	-	-	-	-	scrub; calling	CR
BZ337	VP6	28/10/2022	09:20	Buzzard	1	84	10	24	50	0	highly modified/non-native woodland and cutover bog; flying	CR
BZ338	VP6	28/10/2022	14:16	Buzzard	1	31	9	22	0	0	highly modified/non-native woodland; flying	CR
BZ339	VP3	14/11/2022	14:12	Buzzard	1	29	2	6	21	0	scrub, cutover bog and highly modified/non-native woodland; flying	CR
BZ340	VP2	15/11/2022	12:26	Buzzard	1	101	17	56	28	0	cutover bog and improved grassland; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ341	VP2	15/11/2022	12:55	Buzzard	1	46	9	27	10	0	highly modified/non-native woodland; soaring	CR
BZ342	VP6	17/11/2022	16:06	Buzzard	1	-	-	-	-	-	improved grassland and cutover bog; calling	CR
BZ343	VP6	13/12/2022	12:20	Buzzard	1	39	15	24	0	0	scrub, highly modified/non-native woodland and improved grassland; flying	CR
BZ344	VP1	14/12/2022	14:00	Buzzard	1	25	16	9	0	0	improved grassland; flying, heading north.	CR
BZ345	VP6	17/01/2023	14:53	Buzzard	1	16	16	0	0	0	improved grassland; flying	CR
BZ346	VP3	31/01/2023	13:19	Buzzard	1	97	97	0	0	0	cutover bog and highly modified/non-native woodland; flying, heading east.	CR
BZ347	VP3	31/01/2023	13:19	Buzzard	1	312	36	10	189	77	cutover bog and highly modified/non-native woodland; soaring, last seen heading south east at high altitude.	CR
BZ348	VP3	31/01/2023	13:23	Buzzard	1	77	0	20	57	0	cutover bog and highly modified/non-native woodland; soaring, last seen heading south.	CR
BZ349	VP6	14/02/2023	08:55	Buzzard	1	68	9	7	52	0	improved grassland; flying	CR
BZ350	VP6	14/02/2023	09:50	Buzzard	1	117	4	4	109	0	improved grassland and highly modified/non-native woodland; flying	CR
BZ351	VP6	14/02/2023	13:18	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ352	VP6	14/02/2023	13:29	Buzzard	1	68	36	32	0	0	improved grassland and cutover bog; soaring	CR
BZ353	VP4	16/02/2023	10:22	Buzzard	1	49	8	10	31	0	cutover bog; flying/mobbed by crows	CR
BZ354	VP6	14/03/2023	14:10	Buzzard	2	32	32	0	0	0	improved grassland; flying, pair landed in tree.	CR
BZ355	VP6	14/03/2023	14:13	Buzzard	1	141	53	29	59	0	improved grassland; soaring, returned to same tree it landed at 14:10 pm.	CR
BZ356	VP6	14/03/2023	14:18	Buzzard	1	42	42	0	0	0	improved grassland; flying, returned to tree.	CR
BZ357	VP6	14/03/2023	14:20	Buzzard	2	147	20	100	27	0	improved grassland; soaring, left tree heading south east	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ358	VP6	14/03/2023	14:25	Buzzard	1	40	40	0	0	0	cutover bog; flying	CR
BZ359	VP2	30/03/2023	16:30	Buzzard	1	35	18	7	10	0	cutover bog and scrub; flying	CR
BZ360	VP4	13/04/2023	08:09	Buzzard	2	760	15	90	550	105	conifer plantation, cutover bog and improved grassland; soaring, observed flying with another buzzards during first few minutes of observation.	CR
BZ361	VP4	13/04/2023	08:10	Buzzard	1	265	25	40	200	0	conifer plantation, cutover bog and improved grassland; soaring	CR
BZ362	VP4	13/04/2023	08:14	Buzzard	1	24	24	0	0	0	cutover bog; flying	CR
BZ363	VP4	13/04/2023	08:17	Buzzard	2	20	20	0	0	0	highly modified/non-native woodland; flying	CR
BZ364	VP4	13/04/2023	08:43	Buzzard	2	472	11	52	409	0	improved grassland, conifer plantation and cutover bog; soaring	CR
BZ365	VP6	17/04/2023	08:42	Buzzard	1	47	47	0	0	0	improved grassland; flying/calling	CR
BZ366	VP2	16/05/2023	20:24	Buzzard	1	35	0	35	0	0	cutover bog; flying, lapwing heard alarm calling when buzzard flew over area where pair were roosting.	CR
BZ367	VP1	22/05/2023	20:41	Buzzard	1	21	21	0	0	0	cutover bog; flying	CR
BZ368	VP5	01/06/2023	15:44	Buzzard	1	139	0	20	119	0	cutover bog; soaring	CR
BZ369	VP5	01/06/2023	15:47	Buzzard	1	10	0	0	10	0	cutover bog; soaring/calling	CR
BZ370	VP5	01/06/2023	15:58	Buzzard	1	376	4	12	360	0	improved grassland and cutover bog; soaring	CR
BZ371	VP5	01/06/2023	16:30	Buzzard	1	22	8	14	0	0	highly modified/non-native woodland; flying	CR
BZ372	VP5	01/06/2023	17:35	Buzzard	1	91	3	5	83	0	highly modified/non-native woodland; soaring	CR
BZ373	VP5	01/06/2023	17:42	Buzzard	1	70	22	48	0	0	cutover bog; soaring	CR
BZ374	VP5	01/06/2023	18:33	Buzzard	1	159	10	24	125	0	highly modified/non-native woodland; soaring	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ375	VP5	01/06/2023	18:38	Buzzard	1	122	4	18	100	0	highly modified/non-native woodland; soaring	CR
BZ376	VP5	01/06/2023	18:59	Buzzard	2	9	9	0	0	0	improved grassland and highly modified/non-native woodland; soaring	CR
BZ377	VP5	01/06/2023	19:36	Buzzard	1	247	5	84	158	0	highly modified/non-native woodland; soaring	CR
BZ378	VP5	01/06/2023	19:36	Buzzard	1	74	11	63	0	0	highly modified/non-native woodland; soaring	CR
BZ379	VP2	02/06/2023	06:31	Buzzard	1	102	10	92	0	0	cutover bog; flying	CR
BZ380	VP2	02/06/2023	07:36	Buzzard	1	240	0	0	240	0	cutover bog; soaring	CR
BZ381	VP2	02/06/2023	07:45	Buzzard	1	44	44	0	0	0	cutover bog; hunting	CR
BZ382	VP2	02/06/2023	08:50	Buzzard	1	95	0	0	95	0	cutover bog; soaring	CR
BZ383	VP2	02/06/2023	11:25	Buzzard	1	46	35	11	0	0	cutover bog; soaring	CR
BZ384	VP2	02/06/2023	11:30	Buzzard	1	47	4	19	24	0	cutover bog; soaring	CR
BZ385	VP2	02/06/2023	11:37	Buzzard	1	195	0	0	120	75	cutover bog; soaring	CR
BZ386	VP4	08/06/2023	15:58	Buzzard	1	328	3	25	300	0	cutover bog and highly modified/non-native woodland; soaring	CR
BZ387	VP4	08/06/2023	16:19	Buzzard	1	731	12	59	420	240	highly modified/non-native woodland and cutover bog; soaring	CR
BZ388	VP4	08/06/2023	16:58	Buzzard	1	58	2	17	39	0	highly modified/non-native woodland; soaring	CR
BZ389	VP4	08/06/2023	17:00	Buzzard	2	198	30	95	73	0	highly modified/non-native woodland and improved grassland; soaring	CR
BZ390	VP4	08/06/2023	18:36	Buzzard	2	53	0	0	53	0	highly modified/non-native woodland and improved grassland; soaring	CR
BZ391	VP1	14/06/2023	16:40	Buzzard	1	156	17	39	100	0	cutover bog; soaring	CR
BZ392	VP1	14/06/2023	16:48	Buzzard	1	64	0	0	64	0	cutover bog; soaring	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ393	VP1	14/06/2023	17:37	Buzzard	1	139	0	40	99	0	cutover bog; soaring	CR
BZ394	VP6	16/06/2023	11:16	Buzzard	1	30	14	16	0	0	cutover bog; soaring	CR
BZ395	VP6	16/06/2023	11:35	Buzzard	1	7	7	0	0	0	improved grassland; flying	CR
BZ396	VP6	16/06/2023	12:15	Buzzard	1	74	10	38	26	0	cutover bog and highly modified/non-native woodland; flying	CR
BZ397	VP6	16/06/2023	12:50	Buzzard	1	160	0	180	80	0	cutover bog and improved grassland; soaring	CR
BZ398	VP6	16/06/2023	14:35	Buzzard	1	33	33	0	0	0	highly modified/non-native woodland and improved grassland; flying	CR
BZ399	VP6	16/06/2023	15:11	Buzzard	1	12	12	0	0	0	cutover bog; flying	CR
BZ400	VP6	16/06/2023	15:43	Buzzard	1	22	0	5	17	0	improved grassland; flying	CR
BZ401	VP6	16/06/2023	16:25	Buzzard	1	13	13	0	0	0	highly modified/non-native woodland; flying	CR
BZ402	VP6	16/06/2023	16:42	Buzzard	1	56	30	26	0	0	highly modified/non-native woodland and improved grassland; flying	CR
BZ403	VP3	23/06/2023	10:46	Buzzard	1	300	0	0	110	190	cutover bog and highly modified/non-native woodland; soaring	CR
BZ404	VP3	23/06/2023	12:31	Buzzard	1	73	17	56	0	0	highly modified/non-native woodland and improved grassland; flying	CR
BZ405	VP5	06/07/2023	14:54	Buzzard	1	62	2	8	52	0	improved grassland; soaring, observed briefly soaring with second buzzard.	CR
BZ406	VP5	06/07/2023	14:54	Buzzard	1	57	9	48	0	0	improved grassland and highly modified/non-native woodland; soaring	CR
BZ407	VP5	06/07/2023	16:05	Buzzard	1	100	20	69	11	0	cutover bog; hunting	CR
BZ408	VP5	06/07/2023	16:10	Buzzard	1	23	10	23	0	0	improved grassland; flying	CR
BZ409	VP5	06/07/2023	18:06	Buzzard	1	22	15	7	0	0	cutover bog; flying	CR
BZ410	VP3	07/07/2023	17:53	Buzzard	1	89	0	0	89	0	cutover bog and highly modified/non-native woodland; soaring	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ411	VP6	12/07/2023	14:56	Buzzard	1	55	0	5	55	0	improved grassland; soaring	CR
BZ412	VP6	12/07/2023	14:56	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; calling	CR
BZ413	VP6	12/07/2023	15:07	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; calling	CR
BZ414	VP3	18/07/2023	12:19	Buzzard	1	14	14	0	0	0	cutover bog; flying	CR
BZ415	VP5	01/08/2023	18:40	Buzzard	1	67	67	0	0	0	highly modified/non-native woodland; soaring	CR
BZ416	VP5	01/08/2023	18:42	Buzzard	1	72	43	29	0	0	highly modified/non-native woodland; soaring	CR
BZ417	VP5	01/08/2023	18:48	Buzzard	1	29	22	7	0	0	cutover bog; flying	CR
BZ418	VP5	01/08/2023	19:00	Buzzard	1	19	19	0	0	0	cutover bog; flying	CR
BZ419	VP4	02/08/2023	18:27	Buzzard	1	27	2	7	18	0	improved grassland; flying	CR
BZ420	VP3	04/08/2023	11:44	Buzzard	1	-	-	-	-	-	cutover bog; calling	CR
BZ421	VP3	04/08/2023	11:46	Buzzard	2	320	0	0	180	140	cutover bog; soaring	CR
BZ422	VP3	04/08/2023	11:58	Buzzard	2	264	30	39	120	75	cutover bog; soaring	CR
BZ423	VP3	04/08/2023	12:05	Buzzard	1	127	0	7	120	0	cutover bog and highly modified/non-native woodland; soaring	CR
BZ424	VP3	04/08/2023	14:30	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; calling	CR
BZ425	VP3	04/08/2023	15:24	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; calling	CR
BZ426	VP1	08/08/2023	16:00	Buzzard	2	-	-	-	-	-	cutover bog; calling	CR
BZ427	VP1	08/08/2023	16:45	Buzzard	1	300	0	0	180	120	cutover bog; soaring	CR
BZ428	VP2	10/08/2023	12:19	Buzzard	1	16	7	9	0	0	improved grassland; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ429	VP2	10/08/2023	12:22	Buzzard	1	49	2	4	43	0	cutover bog and highly modified/non-native woodland; soaring	CR
BZ430	VP2	10/08/2023	16:23	Buzzard	1	240	16	29	195	0	cutover bog and improved grassland; soaring	CR
BZ431	VP2	10/08/2023	16:42	Buzzard	1	111	0	0	55	56	cutover bog; soaring	CR
BZ432	VP2	10/08/2023	16:43	Buzzard	1	14	14	0	0	0	cutover bog; flying	CR
BZ433	VP5	16/08/2023	16:53	Buzzard	1	13	13	0	0	0	cutover bog; disrturbed kestrel and landed on same telegraph pole. remained until 16:55 pm.	CR
BZ434	VP5	16/08/2023	16:55	Buzzard	1	14	14	0	0	0	cutover bog; flying	CR
BZ435	VP5	17/08/2023	13:40	Buzzard	1	57	18	15	24	0	highly modified/non-native woodland; soaring	CR
BZ436	VP4	18/08/2023	12:17	Buzzard	1	206	7	19	180	0	highly modified/non-native woodland, cutover bog and improved grassland; flying	CR
BZ437	VP5	18/09/2023	17:09	Buzzard	1	53	5	8	40	0	highly modified/non-native woodland and improved grassland; soaring	CR
BZ438	VP3	22/09/2023	09:05	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; calling	CR
BZ439	VP1	29/09/2023	07:40	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ440	VP1	29/09/2023	08:07	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ441	VP1	29/09/2023	09:53	Buzzard	1	28	20	8	0	0	cutover bog; flying	CR
BZ442	VP1	29/09/2023	09:53	Buzzard	1	48	38	10	0	0	cutover bog and improved grassland; soaring	CR
BZ443	VP1	29/09/2023	09:55	Buzzard	2	45	16	29	0	0	cutover bog; flying, cr	JH
BZ444	VP1	29/09/2023	12:04	Buzzard	1	22	10	12	0	0	cutover bog; soaring	CR
BZ445	VP1	29/09/2023	12:13	Buzzard	1	119	2	5	112	0	improved grassland; soaring	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ446	VP6	30/09/2023	07:21	Buzzard	2	30	30	0	0	0	cutover bog and highly modified/non-native woodland; flying	CR
BZ447	VP6	30/09/2023	07:55	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ448	VP6	30/09/2023	08:19	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ449	VP4	04/10/2023	14:50	Buzzard	1	58	0	0	58	0	highly modified/non-native woodland; soaring	CR
BZ450	VP6	29/11/2023	14:06	Buzzard	1	-	-	-	-	-	improved grassland; calling	CR
BZ451	VP5	15/12/2023	13:04	Buzzard	1	15	15	0	0	0	highly modified/non-native woodland and cutover bog; flying	CR
BZ452	VP5	15/12/2023	13:06	Buzzard	1	328	0	12	130	186	cutover bog, improved grassland and highly modified/non-native woodland; soaring	CR
BZ453	VP2	17/01/2024	08:29	Buzzard	1	-	-	-	-	-	scrub/transitional woodland and bogs; perched, perched for around 8 minutes	JD
BZ454	VP2	17/01/2024	13:00	Buzzard	1	-	-	-	-	-	scrub/transitional woodland; perched, perched for 9 minutes	JD
BZ455	VP2	17/01/2024	13:01	Buzzard	1	19	19	0	0	0	scrub/transitional woodland and bogs; flying, flew from perch	JD
BZ456	VP6	07/02/2024	12:41	Buzzard	1	70	20	40	10	0	bogs; flying	JD
BZ457	VP6	07/02/2024	13:39	Buzzard	1	236	16	10	180	30	bogs and scrub/transitional woodland; flying	JD
BZ458	VP6	07/02/2024	13:40	Buzzard	1	36	20	16	0	0	bogs and scrub/transitional woodland; travelling	JD
BZ459	VP1	20/02/2024	13:23	Buzzard	1	30	13	17	0	0	cutover bog and scrub/transitional woodland; mobbed	CR
BZ460	VP1	20/02/2024	14:05	Buzzard	3	40	0	0	40	0	cutover bog and improved grassland; soaring	CR
BZ461	VP5	27/02/2024	11:46	Buzzard	1	206	0	0	206	0	bogs, scrub/transitional woodland and mixed broadleaved woodland; flying, mobbed by two rooks	JD
BZ462	VP5	27/02/2024	12:06	Buzzard	2	174	20	50	104	0	scrub/transitional woodland and bogs; flying, calling	JD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ463	VP5	27/02/2024	12:28	Buzzard	1	63	23	40	0	0	scrub/transitional woodland and mixed broadleaved/conifer woodland; flying, calling	JD
BZ464	VP5	27/02/2024	12:29	Buzzard	1	29	15	14	0	0	scrub/transitional woodland; flying	JD
BZ465	VP5	27/02/2024	12:29	Buzzard	1	375	0	10	265	100	mixed broadleaved/conifer woodland and bogs; flying, soaring	JD
BZ466	VP5	27/02/2024	12:42	Buzzard	1	76	30	46	0	0	mixed broadleaved/conifer woodland; flying	JD
BZ467	VP5	27/02/2024	13:19	Buzzard	1	936	50	200	486	200	mixed broadleaved/conifer woodland, bogs and scrub/transitional woodland; flying, soaring	JD
BZ468	VP5	27/02/2024	13:33	Buzzard	1	120	50	70	0	0	scrub/transitional woodland and mixed broadleaved/conifer woodland; flying	JD
BZ469	VP5	27/02/2024	15:12	Buzzard	2	651	100	400	151	0	mixed broadleaved/conifer woodland, scrub/transitional woodland and bogs; flying	JD
BZ470	VP5	27/02/2024	15:40	Buzzard	2	109	10	29	70	0	scrub/transitional woodland and mixed broadleaved/conifer woodland; flying	JD
BZ471	VP5	27/02/2024	15:41	Buzzard	1	201	0	0	150	61	scrub/transitional woodland and improved agricultural grassland; flying	JD
BZ472	VP5	27/02/2024	15:42	Buzzard	1	61	11	21	29	0	scrub/transitional woodland and improved agricultural grassland; flying	JD
BZ473	VP4	28/02/2024	16:59	Buzzard	1	24	10	14	0	0	scrub/transitional woodland and bogs; flying	JD
BZ474	VP2	08/03/2024	06:54	Buzzard	1	70	0	0	70	0	cutover bog and scrub/transitional woodland; flying	CR
BZ475	VP5	15/03/2024	12:24	Buzzard	1	207	0	0	57	150	bogs; flying, soaring	JD
BZ476	VP5	15/03/2024	12:34	Buzzard	2	41	31	10	0	0	scrub/transitional woodland and improved agricultural grassland; flying	JD
BZ477	VP5	15/03/2024	12:44	Buzzard	1	53	0	0	53	0	scrub/transitional woodland and improved agricultural grassland; flying, soaring	JD
BZ478	VP1	27/03/2024	10:00	Buzzard	3	135	7	14	114	0	cutover bog and improved grassland; soaring, calling	CR
BZ479	VP1	27/03/2024	10:13	Buzzard	2	86	32	54	0	0	cutover bog and improved grassland; soaring, calling	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ480	VP1	27/03/2024	10:16	Buzzard	1	150	10	10	130	0	cutover bog and improved grassland; soaring, calling	CR
BZ481	VP1	27/03/2024	11:50	Buzzard	1	45	7	8	30	0	cutover bog and improved grassland; soaring, calling	CR
BZ482	VP1	27/03/2024	11:50	Buzzard	2	168	31	20	117	0	cutover bog and improved grassland; soaring, calling	CR
BZ483	VP6	28/03/2024	10:49	Buzzard	1	421	0	11	350	60	scrub/transitional woodland and bogs; flying	JD
BZ484	VP4a	17/04/2024	16:29	Buzzard	1	164	0	70	40	54	conifer plantation; soaring, mobbed	NL
BZ485	VP4a	17/04/2024	17:29	Buzzard	1	36	0	0	0	36	mixed broadleaved woodland; soaring	NL
BZ486	VP4a	17/04/2024	18:02	Buzzard	2	76	0	0	0	76	conifer plantation and mixed broadleaved woodland; soaring together before sharp drop into trees, possible pair.	NL
BZ487	VP5	25/04/2024	16:27	Buzzard	1	-	-	-	-	-	improved agricultural grassland; perched, mobbed	NL
BZ488	VP2	29/04/2024	16:17	Buzzard	1	10	0	10	0	0	scrub/transitional woodland; travelling	PDC
BZ489	VP2	20/05/2024	10:20	Buzzard	1	153	0	153	0	0	highly modified/non-native woodland; soaring, chased off by corvids	PDC
BZ490	VP3	21/05/2024	09:08	Buzzard	1	-	-	-	-	-	scrub and cutover bog; perching	CG
BZ491	VP1	24/05/2024	09:34	Buzzard	2	185	0	0	185	0	cutover bog and conifer plantation; commuing, crossed bog and appeared to drop into forestry	CG
BZ495	VP4a	12/06/2024	10:33	Buzzard	1	358	0	0	0	358	conifer plantation; soaring	NL
BZ496	VP5	12/06/2024	12:43	Buzzard	1	-	-	-	-	-	scattered tress and parkland; calling	NL
BZ497	VP1	18/06/2024	08:31	Buzzard	1	1084	0	195	889	0	bogs and scrub/transitional woodland; hunting, soaring, occasional hovering	PDC
BZ498	VP1	18/06/2024	09:06	Buzzard	1	225	0	225	0	0	bogs and scrub/transitional woodland; hunting, travelling, occasional hovering	PDC
BZ499	VP5	18/06/2024	09:28	Buzzard	1	286	0	0	0	286	highly modified/non-native woodland; hunting	NL

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ500	VP1	18/06/2024	10:19	Buzzard	1	150	0	0	150	0	bogs and scrub/transitional woodland; soaring, stopped watching the buzzard when i spotted the kestrel	PDC
BZ501	VP1	18/06/2024	10:25	Buzzard	1	905	0	0	905	0	bogs and scrub/transitional woodland; soaring, hunting, i assume this is the same bird as previous sighting. it was probably up the whole time i was watching the kestrel.	PDC
BZ502	VP5	18/06/2024	12:43	Buzzard	1	500	0	0	0	500	highly modified/non-native woodland; hunting, calling	NL
BZ503	VP5	18/06/2024	12:59	Buzzard	1	601	0	5	25	570	highly modified/non-native woodland; hunting	NL
BZ504	VP5	18/06/2024	13:00	Buzzard	1	91	0	2	91	0	highly modified/non-native woodland; flying with previous bz	NL
BZ505	VP2	19/06/2024	07:17	Buzzard	1	41	0	0	41	0	cutover bog and immature woodland; flying	PDC
BZ507	VP2	19/06/2024	10:38	Buzzard	1	105	105	0	0	0	scrub/transitional woodland; flying	PDC
BZ508	VP2	19/06/2024	11:00	Buzzard	1	460	0	240	220	0	bogs; soaring	PDC
BZ509	VP2	19/06/2024	11:02	Buzzard	1	240	0	100	140	0	bogs; soaring, soaring with other bird	PDC
BZ510	VP2	19/06/2024	11:30	Buzzard	1	76	0	76	0	0	scrub/transitional woodland; flying	PDC
BZ511	VP1	10/07/2024	09:09	Buzzard	1	14	14	0	0	0	scrub and bogs; travelling, came up from scrub then dropped back into it	PDC
BZ512	VP1	10/07/2024	10:29	Buzzard	1	120	0	60	60	0	scrub; travelling, timings are best estimates as i spotted the buzzard whilst watching the kestrels.	PDC
BZ513	VP1	10/07/2024	11:29	Buzzard	1	12	12	0	0	0	scrub; travelling, briefly seen when it came up above scrub then dropped back down	PDC
BZ514	VP1	10/07/2024	11:31	Buzzard	2	265	0	46	219	0	scrub and bogs; travelling	PDC
BZ515	VP1	10/07/2024	11:33	Buzzard	2	28	0	0	28	0	bogs; travelling, second pair joined first pair of buzzards. didn't see where they went as i was watching a kestrel as well.	PDC
BZ516	VP1	10/07/2024	11:50	Buzzard	1	91	91	0	0	0	scrub and bogs; travelling	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ517	VP2	11/07/2024	10:40	Buzzard	1	1080	0	950	130	0	scrub and bogs; mobbed, hunting, mobbed by kestrel then hovering regularly over the bog	PDC
BZ518	VP2	11/07/2024	10:42	Buzzard	1	95	0	95	0	0	scrub; travelling, came up just after previous buzzard but i lost it whilst watching the kestrel mobbing the other buzzard.	PDC
BZ519	VP4a	11/07/2024	11:35	Buzzard	1	113	0	0	113	0	conifer plantation; circling	NL
BZ520	VP2	11/07/2024	11:48	Buzzard	1	83	0	83	0	0	scrub; soaring, dropped into scrub	PDC
BZ521	VP2	11/07/2024	12:14	Buzzard	1	925	0	925	0	0	bogs and scrub; travelling, hovering	PDC
BZ522	VP3	15/07/2024	07:52	Buzzard	1	11	0	0	11	0	bogs; travelling, briefly seen, lost it in the distance behind wind speed mast	PDC
BZ523	VP5	19/07/2024	09:57	Buzzard	1	30	0	30	0	0	mixed broadleaved/conifer woodland; travelling, mobbed	KS
BZ524	VP5	19/07/2024	11:53	Buzzard	1	33	0	33	0	0	cutover bog; hunting	KS
BZ526	VP5	19/07/2024	12:33	Buzzard	1	20	0	20	0	0	cutover bog and mixed broadleaved/conifer woodland; travelling	KS
BZ527	VP5	19/07/2024	14:00	Buzzard	1	109	0	109	0	0	cutover bog; hunting	KS
BZ528	VP5	19/07/2024	14:10	Buzzard	1	soaring	ga1				improved agricultural grassland; soaring	#REF!
BZ529	VP4	13/08/2024	11:44	Buzzard	1	9	9	0	0	0	highly modified/non-native woodland and improved agricultural grassland; travelling	PDC
BZ531	VP5	14/08/2024	08:33	Buzzard	1	-	-	-	-	-	highly modified/non-native woodland; perched	PDC
BZ532	VP5	14/08/2024	10:58	Buzzard	1	196	0	196	0	0	highly modified/non-native woodland; soaring, gliding	PDC
BZ533	VP5	14/08/2024	11:49	Buzzard	2	225	0	0	225	0	highly modified/non-native woodland; soaring, lost whilst following the third buzzard	PDC
BZ534	VP5	14/08/2024	11:50	Buzzard	1	335	0	50	285	0	highly modified/non-native woodland and bogs; soaring, gliding, came up just after the pair of buzzards appeared	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ535	VP5	14/08/2024	11:52	Buzzard	1	15	0	0	15	0	improved agricultural grassland; soaring, briefly spotted whilst watching the previous buzzard. difficult to judge exactly where it was and how high due to distance.	PDC
BZ536	VP5	14/08/2024	12:08	Buzzard	1	44	0	44	0	0	conifer plantation and bogs; soaring, gliding	PDC
BZ537	VP5	14/08/2024	12:11	Buzzard	1	14	0	0	14	0	improved agricultural grassland; soaring, again, hard to know exactly where it was due to distance. lost against bright clouds.	PDC
BZ538	VP5	14/08/2024	12:20	Buzzard	1	6	6	0	0	0	linear woodland/scrub and bogs; travelling, came up and dropped straight back into trees whilst i was watching the previous kestrel.	PDC
BZ539	VP2	11/09/2024	11:06	Buzzard	1	315	25	290	0	0	highly modified/non-native woodland and hedgerows; travelling, hovering, lost in trees	PDC
BZ540	VP2	11/09/2024	12:32	Buzzard	1	12	12	0	0	0	scrub; travelling, perched, perched then dropped below trees	PDC
BZ541	VP2	11/09/2024	12:34	Buzzard	1	8	8	0	0	0	scrub; travelling, perched, dropped below trees, presumably same bird as previous sighting	PDC
BZ542	VP2	11/09/2024	12:37	Buzzard	2	60	60	0	0	0	scrub; travelling, soaring, came up with previous kestrel, so concentrated on kestrel	PDC
BZ543	VP3	12/09/2024	11:08	Buzzard	1	19	19	0	0	0	scrub and hedgerows; travelling, came up from trees then dropped straight down again.	PDC
BZ544	VP6	17/09/2024	11:19	Buzzard	1	13	13	0	0	0	bogs and scrub; mobbed, travelling, chased by 3 hooded crows very low over bog before the buzzard dived into the scrub. flew past whilst watching the perched sparrowhawk.	PDC
BZ545	VP4	18/09/2024	11:59	Buzzard	2	455	0	0	455	0	bogs and scrub; travelling, soaring, broke away from flock of 6 buzzards	PDC
BZ546	VP4	18/09/2024	12:02	Buzzard	1	520	0	30	490	0	scrub; soaring, broke away from flock of 6 buzzards, dropped into trees	PDC
BZ547	VP4	18/09/2024	12:04	Buzzard	3	910	0	0	910	0	scrub and bogs; travelling, soaring, broke away from flock of 6 buzzards	PDC
BZ548	VP4	18/09/2024	12:08	Buzzard	4	385	0	0	385	0	scrub; soaring, travelling	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ549	VP4	18/09/2024	12:10	Buzzard	1	170	0	0	170	0	hedgerows; travelling, soaring	PDC
BZ550	VP4	18/09/2024	12:41	Buzzard	1	345	0	0	345	0	bogs and scrub; travelling, soaring	PDC
BZ551	VP4	18/09/2024	12:43	Buzzard	4	350	0	0	350	0	scrub and hedgerows; travelling, soaring	PDC
BZ552	VP4	18/09/2024	12:44	Buzzard	2	90	0	0	90	0	scrub; travelling, soaring	PDC
BZ553	VP5	19/09/2024	11:28	Buzzard	1	205	0	0	205	0	bogs and scrub; travelling	PDC
BZ554	VP5	19/09/2024	11:29	Buzzard	1	90	0	0	90	0	improved agricultural grassland and scrub; travelling, soaring	PDC
BZ555	VP5	19/09/2024	11:41	Buzzard	1	90	0	0	90	0	hedgerows and bogs; travelling	PDC
BZ556	VP5	19/09/2024	11:43	Buzzard	1	180	0	0	180	0	hedgerows and bogs; travelling	PDC
BZ557	VP5	19/09/2024	11:55	Buzzard	1	215	0	0	215	0	bogs, improved agricultural grassland and scrub; soaring, mobbed by 3 corvids	PDC
BZ558	VP5	19/09/2024	12:17	Buzzard	1	190	0	0	190	0	improved agricultural grassland; soaring, travelling	PDC
BZ559	VP5	15/10/2024	17:19	Buzzard	1	219	0	219	0	0	semi-natural woodland and cutover bog; hunting, travelling	CC
BZ560	VP4	16/10/2024	16:38	Buzzard	1	24	0	24	0	0	conifer plantation; mobbed, mobbed by corvids	CC
BZ561	VP4	16/10/2024	16:52	Buzzard	1	47	0	47	0	0	conifer plantation; soaring	CC
BZ562	VP3	24/10/2024	14:43	Buzzard	1	189	20	50	119	0	cutover bog; travelling, soaring	CC
BZ563	VP4	08/11/2024	12:52	Buzzard	1	526	150	100	276	0	cutover bog; hunting	CC
BZ564	VP4	26/11/2024	12:54	Buzzard	1	12	0	12	0	0	cutover bog; travelling	CC
BZ565	VP4	26/11/2024	13:49	Buzzard	1	679	0	100	579	0	improved agricultural grassland; travelling, soaring	CC
BZ566	VP2	28/11/2024	14:52	Buzzard	2	324	0	142	182	0	bogs; hunting	FOD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ567	VP5	04/12/2024	10:42	Buzzard	1	15	15	0	0	0	cutover bog; travelling	KS
BZ568	VP5	04/12/2024	15:13	Buzzard	1	68	0	20	48	0	cutover bog; soaring	KS
BZ569	VP4	23/01/2025	12:04	Buzzard	1	68	8	60	0	0	cutover bog; hunting	CC
BZ570	VP2	15/01/2025	12:43	Buzzard	1	6	6	0	0	0	scrub/transitional woodland; flying	ZE
BZ571	VP2	15/01/2025	13:08	Buzzard	1	90	0	30	60	0	cutover bog, semi-natural grassland and linear woodland/scrub; flying, circling	ZE
BZ572	VP3	16/01/2025	12:55	Buzzard	1	76	6	10	60	0	cutover bog; flying, circling	ZE
BZ573	VP3	16/01/2025	13:38	Buzzard	1	187	2	5	180	0	cutover bog, bogs and conifer plantation; flying, circling, mobbed, attacked by crows when above forestry, where it disappeared	ZE
BZ574	VP3	16/01/2025	13:45	Buzzard	1	70	60	10	0	0	conifer plantation and bogs; flying, mobbed, probably the same bird chased by the same crows	ZE
BZ575	VP5	21/02/2025	17:17	Buzzard	1	4	4	0	0	0	lowland blanket bog and improved agricultural grassland; travelling, didnt see enter viewshed seen perched for 2 mins before flying sw	CC
BZ576	VP6	25/02/2025	13:41	Buzzard	1	211	21	100	90	0	lowland blanket bog; hunting, travelling, mobbing, altercation with displaying male buzzard	CC
BZ578	VP6	25/02/2025	13:45	Buzzard	1	25	5	20	0	0	cutover bog and conifer plantation; travelling, seen while watching other buzzards	CC
BZ579	VP6	25/02/2025	13:58	Buzzard	1	59	59	0	0	0	cutover bog; hunting, low flying over bog	CC
BZ580	VP3	13/02/2025	13:28	Buzzard	1	10	5	5	0	0	cutover bog and scrub/transitional woodland; flying	ZE
BZ582	VP1	11/03/2025	10:15	Buzzard	2	240	0	0	200	40	cutover bog; circling, soaring, second pair	ZE
BZ583	VP1	11/03/2025	10:20	Buzzard	2	480	80	100	300	0	cutover bog, linear woodland/scrub and improved grassland; flying, circling, calling, third pair	ZE

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
BZ584	VP1	11/03/2025	10:47	Buzzard	1	170	30	70	100	0	cutover bog and semi-natural woodland; flying, circling, slowly descending	ZE
BZ585	VP2	12/03/2025	10:55	Buzzard	2	155	5	50	100	0	bogs and semi-natural woodland; circling, soaring, flying, slowly descended; out of sight behind the trees	ZE
BZ586	VP3	13/03/2025	11:40	Buzzard	2	540	20	120	300	100	conifer plantation and improved grassland; flying, circling, soaring, one of the birds was mobbed for some time by a sparrowhawk; disappeared in the distance	ZE
BZ587	VP6	20/03/2025	11:34	Buzzard	1	218	70	20	128	0	cutover bog, improved agricultural grassland and semi-natural woodland; travelling, soaring	CC

Table 16-2 Buzzard Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ003	21/04/2021	15:38	-	Buzzard	2	mixed broadleaved woodland, cutover bog and scrub; flight, likely same pair as seen displaying earlier, to ne. unknown (suitable nesting habitat; possible breeder)	TR
BZ012	23/04/2021	12:23	-	Buzzard	1	cutover bog; short glide/then perch, no obvious breeding activity but close to good nesting habitat (suitable nesting habitat; possible breeder)	TR
BZ015	14/05/2021	11:01	-	Buzzard	1	mixed broadleaved woodland and cutover bog; flight, short flight (suitable nesting habitat; possible breeder)	TR
BZ018	14/05/2021	15:16	-	Buzzard	1	scrub, hedgerows and cutover bog; flight, low flight to perch then out of view behind scrub (suitable nesting habitat; possible breeder)	TR
BZ032	21/07/2021	12:15	-	Buzzard	1	conifer plantation and improved agricultural grassland; flight, flight, circling area (flyover; non-breeding)	TR
BZ033	21/07/2021	13:30	-	Buzzard	1	conifer plantation and scrub; flight, gliding briefly out of view behind trees (flyover; non-breeding)	TR
BZ034	29/07/2021	12:19	-	Buzzard	1	cutover bog, improved agricultural grassland and treelines; riding thermals, gliding, buzzard riding thermal above cutover bog near end of t2, north of transect path ()	SOB
BZ035	29/07/2021	15:19	-	Buzzard	1	improved agricultural grassland, treelines and bog woodland; calling, buzzard heard calling from somewhere in field inside bog. ()	SOB
BZ036	14/04/2022	12:42	-	Buzzard	1	cutover bog and improved grassland; flying, heading south. (suitable nesting habitat; possible breeder)	CR
BZ037	14/04/2022	17:15	-	Buzzard	1	cutover bog and scrub; flying (suitable nesting habitat; possible breeder)	CR
BZ038	27/04/2022	14:08	-	Buzzard	1	cutover bog and scrub; flying (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ039	28/04/2022	09:00	-	Buzzard	1	cutover bog and highly modified/non-native woodland; flying (suitable nesting habitat; possible breeder)	CR
BZ040	28/04/2022	09:39	-	Buzzard	1	cutover bog and conifer plantation; soaring (suitable nesting habitat; possible breeder)	CR
BZ041	28/04/2022	11:34	-	Buzzard	1	cutover bog and scrub; flying (suitable nesting habitat; possible breeder)	CR
BZ042	28/04/2022	13:56	-	Buzzard	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
BZ043	09/05/2022	15:20	-	Buzzard	1	improved grassland; flying, heading west. (suitable nesting habitat; possible breeder)	CR
BZ044	09/05/2022	16:20	-	Buzzard	1	improved grassland and highly modified/non-native woodland; flying (suitable nesting habitat; possible breeder)	CR
BZ045	09/05/2022	18:48	-	Buzzard	1	improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ046	10/05/2022	14:31	-	Buzzard	1	highly modified/non-native woodland; soaring (suitable nesting habitat; possible breeder)	CR
BZ047	10/05/2022	14:56	-	Buzzard	2	cutover bog and scrub; flying, heading north east. (pair; probable breeding)	CR
BZ048	10/05/2022	15:00	-	Buzzard	1	cutover bog and scrub; flying, heading south west. (suitable nesting habitat; possible breeder)	CR
BZ049	12/05/2022	13:14	-	Buzzard	1	cutover bog and scrub; soaring (suitable nesting habitat; possible breeder)	CR
BZ050	12/05/2022	16:52	-	Buzzard	1	scrub and cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ051	12/05/2022	17:12	-	Buzzard	1	scrub and cutover bog; hunting (suitable nesting habitat; possible breeder)	CR
BZ052	23/05/2022	13:00	-	Buzzard	1	cutover bog and highly modified/non-native woodland; soaring (suitable nesting habitat; possible breeder)	CR
BZ053	02/06/2022	17:06	-	Buzzard	1	improved grassland; flying, heading north. (suitable nesting habitat; possible breeder)	CR
BZ054	17/06/2022	13:50	-	Buzzard	1	bog woodland; soaring, observed getting mobbed by kestrel. (suitable nesting habitat; possible breeder)	CR
BZ055	17/06/2022	14:11	-	Buzzard	1	bog woodland and cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ056	12/07/2022	16:30	-	Buzzard	1	bog woodland; flying (suitable nesting habitat; possible breeder)	CR
BZ057	15/07/2022	09:19	-	Buzzard	1	improved grassland; calling (suitable nesting habitat; possible breeder)	CR
BZ058	15/07/2022	09:30	-	Buzzard	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ059	18/07/2022	20:33	-	Buzzard	1	improved grassland; calling (suitable nesting habitat; possible breeder)	CR
BZ060	21/07/2022	14:11	-	Buzzard	1	improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ061	22/07/2022	12:24	-	Buzzard	1	highly modified/non-native woodland and improved grassland; calling (suitable nesting habitat; possible breeder)	CR
BZ062	04/04/2023	14:49	-	Buzzard	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ063	04/04/2023	14:49	-	Buzzard	3	highly modified/non-native woodland; soaring/calling (suitable nesting habitat; possible breeder)	CR
BZ064	04/04/2023	17:27	-	Buzzard	1	improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ065	04/04/2023	17:32	-	Buzzard	1	improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ066	06/04/2023	13:13	-	Buzzard	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ067	06/04/2023	13:16	-	Buzzard	1	improved grassland and scrub; soaring (suitable nesting habitat; possible breeder)	CR
BZ068	06/04/2023	13:41	-	Buzzard	1	highly modified/non-native woodland; flying/calling (suitable nesting habitat; possible breeder)	CR
BZ069	06/04/2023	14:01	-	Buzzard	2	improved grassland; soaring (pair; probable breeding)	CR
BZ070	06/04/2023	15:08	-	Buzzard	1	cutover bog; flying (suitable nesting habitat; possible breeder)	CR
BZ071	06/04/2023	15:32	-	Buzzard	3	cutover bog, highly modified/non-native woodland and improved grassland; soaring/calling (pair; probable breeding)	CR
BZ072	06/04/2023	15:32	-	Buzzard	1	cutover bog and highly modified/non-native woodland; soaring (suitable nesting habitat; possible breeder)	CR
BZ073	06/04/2023	15:37	-	Buzzard	3	cutover bog, highly modified/non-native woodland and improved grassland; soaring/calling (pair; probable breeding)	CR
BZ074	06/04/2023	15:41	-	Buzzard	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ075	06/04/2023	15:42	-	Buzzard	1	highly modified/non-native woodland and cutover bog; flying (suitable nesting habitat; possible breeder)	CR
BZ076	06/04/2023	17:25	-	Buzzard	1	cutover bog and highly modified/non-native woodland; flying, landed on tree top. remained perched until 17:31 pm. (suitable nesting habitat; possible breeder)	CR
BZ077	06/04/2023	17:31	-	Buzzard	1	highly modified/non-native woodland; flying (suitable nesting habitat; possible breeder)	CR
BZ078	06/04/2023	18:12	-	Buzzard	2	cutover bog and improved grassland; flying/calling (pair; probable breeding)	CR
BZ079	27/04/2023	15:25	-	Buzzard	2	cutover bog; soaring (pair; probable breeding)	CR
BZ080	10/05/2023	16:36	-	Buzzard	1	highly modified/non-native woodland and cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ081	10/05/2023	17:19	-	Buzzard	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ082	10/05/2023	18:00	-	Buzzard	1	highly modified/non-native woodland and improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ083	17/05/2023	16:58	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ084	17/05/2023	17:17	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ085	17/05/2023	17:20	-	Buzzard	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ086	17/05/2023	17:25	-	Buzzard	2	cutover bog; soaring (pair; probable breeding)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ087	17/05/2023	17:43	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ088	30/05/2023	17:20	-	Buzzard	1	cutover bog and improved grassland; flying (suitable nesting habitat; possible breeder)	CR
BZ089	30/05/2023	18:03	-	Buzzard	1	improved grassland and cutover bog; flying (suitable nesting habitat; possible breeder)	CR
BZ090	15/06/2023	11:45	-	Buzzard	1	improved grassland; roosting (suitable nesting habitat; possible breeder)	CR
BZ091	15/06/2023	13:44	-	Buzzard	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ092	15/06/2023	14:35	-	Buzzard	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ093	21/06/2023	16:48	-	Buzzard	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ094	21/06/2023	19:08	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ095	28/06/2023	14:00	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ096	28/06/2023	14:30	-	Buzzard	1	highly modified/non-native woodland; calling (suitable nesting habitat; possible breeder)	CR
BZ097	28/06/2023	17:00	-	Buzzard	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ098	29/06/2023	18:03	-	Buzzard	1	cutover bog; flying, mobbed by kestrel. (suitable nesting habitat; possible breeder)	CR
BZ099	29/06/2023	18:18	-	Buzzard	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
BZ100	19/07/2023	14:59	-	Buzzard	1	conifer plantation and improved grassland; soaring (pair; probable breeding)	CR
BZ101	19/07/2023	15:30	-	Buzzard	1	conifer plantation; soaring (pair; probable breeding)	CR
BZ102	19/07/2023	20:15	-	Buzzard	1	highly modified/non-native woodland; calling (suitable nesting habitat; possible breeder)	CR
BZ103	24/07/2023	11:38	-	Buzzard	1	highly modified/non-native woodland; calling (suitable nesting habitat; possible breeder)	CR
BZ104	24/07/2023	12:39	-	Buzzard	1	highly modified/non-native woodland; calling (suitable nesting habitat; possible breeder)	CR
BZ106	24/07/2023	16:40	-	Buzzard	1	cutover bog; calling (suitable nesting habitat; possible breeder)	CR
BZ108	24/07/2023	16:46	-	Buzzard	1	highly modified/non-native woodland and improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
BZ109	22/04/2024	10:49	T1	Buzzard	2	conifer plantation; travelling, flew out of stand of deciduous trees together (suitable nesting habitat; possible breeder)	PDC
BZ110	22/04/2024	12:52	T1	Buzzard	1	conifer plantation; travelling (suitable nesting habitat; possible breeder)	PDC
BZ111	23/04/2024	10:51	T2	Buzzard	1	improved agricultural grassland and linear woodland/scrub; soaring (suitable nesting habitat; possible breeder)	PDC

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ112	23/04/2024	10:56	T2	Buzzard	1	highly modified/non-native woodland; soaring (suitable nesting habitat; possible breeder)	PDC
BZ113	28/05/2024	07:52	T2	Buzzard	1	bogs and highly modified/non-native woodland; mobbed, mobbed by raven before settling on wind speed mast (suitable nesting habitat; possible breeder)	PDC
BZ114	28/05/2024	09:16	T2	Buzzard	1	semi-natural woodland; hunting, hovering over bog and scrubby woods, then mobbed by corvids (suitable nesting habitat; possible breeder)	PDC
BZ115	29/05/2024	10:05	T3	Buzzard	1	semi-natural woodland; travelling, a distant sighting (suitable nesting habitat; possible breeder)	PDC
BZ116	24/06/2024	11:23	T1	Buzzard	1	improved agricultural grassland; perched (suitable nesting habitat; possible breeder)	PDC
BZ117	25/06/2024	11:18	T2	Buzzard	1	bogs; travelling (flyover; non-breeding)	PDC
BZ118	26/06/2024	10:39	T3	Buzzard	1	bogs and highly modified/non-native woodland; travelling (flyover; non-breeding)	PDC
BZ119	22/07/2024	09:41	T1	Buzzard	1	improved agricultural grassland and linear woodland/scrub; perching, hunting, perched on tree when spotted, then flew low over field, dropped and came carrying what looked like a rodent, probably a rat from the size. flew into scrub carrying its prize. (suitable nesting habitat; possible breeder)	PDC
BZ120	22/07/2024	11:16	T1	Buzzard	1	conifer plantation; travelling (suitable nesting habitat; possible breeder)	PDC
BZ121	22/07/2024	11:17	T1	Buzzard	1	conifer plantation and bogs; travelling (suitable nesting habitat; possible breeder)	PDC
BZ122	23/07/2024	07:57	T2	Buzzard	1	highly modified/non-native woodland; flushed, flushed from perch, flew into forestry (suitable nesting habitat; possible breeder)	PDC
BZ123	23/07/2024	08:05	T2	Buzzard	1	highly modified/non-native woodland; travelling (suitable nesting habitat; possible breeder)	PDC
BZ124	23/07/2024	08:06	T2	Buzzard	1	highly modified/non-native woodland; calling, second bird heard calling as previous buzzard approached. (suitable nesting habitat; possible breeder)	PDC
BZ125	23/07/2024	10:43	T2	Buzzard	1	highly modified/non-native woodland; calling, travelling (suitable nesting habitat; possible breeder)	PDC
BZ126	23/07/2024	11:38	T2	Buzzard	1	bogs and scrub; travelling, perching, landed on wind speed mast (suitable nesting habitat; possible breeder)	PDC
BZ127	24/07/2024	08:05	T3	Buzzard	1	bogs and scrub; travelling, flew low over bog, lost behind scrub (suitable nesting habitat; possible breeder)	PDC
BZ128	24/07/2024	09:22	T3	Buzzard	1	scrub/transitional woodland and linear woodland/scrub; travelling, mobbed (suitable nesting habitat; possible breeder)	PDC
BZ129	24/07/2024	09:23	T3	Buzzard	1	scrub and linear woodland/scrub; travelling, mobbed, presumably same bird as previous sighting (suitable nesting habitat; possible breeder)	PDC

Table 16-3 Buzzard Breeding Raptor Survey Data

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ001	BR1	09/04/2021	07:40	Buzzard	1	bogs and semi-natural woodland, hunting	suitable nesting habitat; possible breeder	SA
BZ002	BR4	09/04/2021	09:30	Buzzard	1	bogs, scrub/transitional woodland and semi-natural grassland, flying	suitable nesting habitat; possible breeder	SA
BZ003	BR4	09/04/2021	10:15	Buzzard	1	bogs and scrub/transitional woodland, flying, ad male	suitable nesting habitat; possible breeder	SA
BZ004	BR3	10/04/2021	08:33	Buzzard	1	bogs and scrub/transitional woodland, flying	suitable nesting habitat; possible breeder	SA
BZ005	BR2	10/04/2021	11:40	Buzzard	1	bogs and scrub/transitional woodland, hunting & flying	suitable nesting habitat; possible breeder	SA
BZ006	BR5	22/04/2021	12:05	Buzzard	1	bogs and semi-natural woodland, circling	suitable nesting habitat; possible breeder	SA
BZ007	BR6	22/04/2021	14:25	Buzzard	2	bogs, flying & hunting same area	flyover; non-breeding	SA
BZ008	BR1	09/05/2021	10:50	Buzzard	1	bogs and semi-natural woodland, hunting	suitable nesting habitat; possible breeder	SA
BZ009	BR1	09/05/2021	11:23	Buzzard	1	semi-natural woodland and bogs, hunting	suitable nesting habitat; possible breeder	SA
BZ010	BR9	09/05/2021	13:20	Buzzard	2	semi-natural woodland, bogs and scrub/transitional woodland, hunting & flying, male joined by female flew around & hunted together.	suitable nesting habitat; possible breeder	SA
BZ011	BR9	09/05/2021	13:35	Buzzard	1	bogs and scrub/transitional woodland, hunting, ad male	suitable nesting habitat; possible breeder	SA
BZ012	BR9	09/05/2021	13:55	Buzzard	1	bogs and scrub/transitional woodland, hunting	suitable nesting habitat; possible breeder	SA
BZ013	BR6	22/05/2021	08:40	Buzzard	1	bogs, hunting, hunting on site over 12 minutes.	flyover; non-breeding	SA
BZ014	BR5	22/05/2021	10:00	Buzzard	1	bogs and semi-natural woodland, hunting, male	suitable nesting habitat; possible breeder	SA
BZ015	BR2	29/05/2021	14:48	Buzzard	1	bogs and scrub/transitional woodland, hunting	suitable nesting habitat; possible breeder	SA
BZ017	BR8	30/05/2021	10:47	Buzzard	1			SA
BZ018	BR4	19/06/2021	08:15	Buzzard	1	bogs, semi-natural woodland and semi-natural grassland, circling & flew ne, age & sex unknown	suitable nesting habitat; possible breeder	SA
BZ019	BR4	19/06/2021	08:35	Buzzard	1	bogs, hunting, ad.	suitable nesting habitat; possible breeder	SA

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ020	BR2	19/06/2021	11:10	Buzzard	1	bogs and semi-natural grassland, flying	suitable nesting habitat; possible breeder	SA
BZ021	BR6	19/06/2021	15:45	Buzzard	1	bogs and semi-natural woodland, flying, ad male	suitable nesting habitat; possible breeder	SA
BZ022	BR5	20/06/2021	06:45	Buzzard	1	bogs and conifer plantation, hunting, ad male	suitable nesting habitat; possible breeder	SA
BZ023	BR5	20/06/2021	07:10	Buzzard	1	bogs and conifer plantation, flying & hunting, ad -sex unknown	suitable nesting habitat; possible breeder	SA
BZ025	BR8	20/06/2021	11:10	Buzzard	1	conifer plantation, semi-natural woodland and bogs, flying, ad.	suitable nesting habitat; possible breeder	SA
BZ026	BR7	20/06/2021	15:50	Buzzard	1	conifer plantation and bogs, heard calling, calling nw of vp	suitable nesting habitat; possible breeder	SA
BZ027	BR9	28/06/2021	18:00	Buzzard	1	bogs and scrub/transitional woodland, hunting -perched on poles, ad.	suitable nesting habitat; possible breeder	SA
BZ029	BR1	05/07/2021	18:14	Buzzard	1	cutover bog and highly modified/non-native woodland, flying/soaring	suitable nesting habitat; possible breeder	JG
BZ030	BR1	05/07/2021	18:30	Buzzard	1	mixed broadleaved woodland and cutover bog, hunting	suitable nesting habitat; possible breeder	JG
BZ031	BR2	06/07/2021	17:17	Buzzard	1	mixed broadleaved woodland and cutover bog, hunting	suitable nesting habitat; possible breeder	JG
BZ032	BR2	06/07/2021	17:42	Buzzard	1	mixed broadleaved woodland, cutover bog and improved agricultural grassland, hunting	suitable nesting habitat; possible breeder	JG
BZ033	BR3	07/07/2021	17:07	Buzzard	1	mixed broadleaved woodland, cutover bog and improved agricultural grassland, flying/hunting, flew into a small section of mature scots pine. suitable location for a nest	suitable nesting habitat; possible breeder	JG
BZ034	BR3	07/07/2021	17:47	Buzzard	1	improved agricultural grassland and highly modified/non-native woodland, hunting, perched on various trees before flying north	suitable nesting habitat; possible breeder	JG
BZ035	BR3	07/07/2021	18:18	Buzzard	1	mixed broadleaved woodland, cutover bog and improved agricultural grassland, flying/calling, flew out of scots pine after approx. 1h	suitable nesting habitat; possible breeder	JG
BZ036	BR3	07/07/2021	18:20	Buzzard	1	conifer plantation and cutover bog, flying	suitable nesting habitat; possible breeder	JG
BZ037	BR5	12/07/2021	17:03	Buzzard	1	conifer plantation and scrub/transitional woodland, flying and calling	suitable nesting habitat; possible breeder	JG
BZ038	BR8	08/04/2022	13:52	Buzzard	1	conifer plantation, soaring	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ039	BR8	08/04/2022	14:15	Buzzard	1	conifer plantation and improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ040	BR2	11/04/2022	16:26	Buzzard	1	highly modified/non-native woodland and improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ041	BR5	13/04/2022	12:21	Buzzard	1	cutover bog and conifer plantation, flying	suitable nesting habitat; possible breeder	CR
BZ042	BR6	13/04/2022	16:37	Buzzard	1	bogs, flying	suitable nesting habitat; possible breeder	CR
BZ043	BR4	16/05/2022	17:38	Buzzard	1	cutover bog, soaring, last seen heading south east.	suitable nesting habitat; possible breeder	CR
BZ044	BR4	16/05/2022	17:38	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ045	BR4	16/05/2022	18:00	Buzzard	1	cutover bog, flying, heading east.	suitable nesting habitat; possible breeder	CR
BZ046	BR4	16/05/2022	18:00	Buzzard	1	cutover bog, highly modified/non-native woodland and improved grassland, flying, heading south west.	suitable nesting habitat; possible breeder	CR
BZ047	BR1	20/05/2022	13:30	Buzzard	1	cutover bog and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	CR
BZ048	BR8	20/05/2022	16:56	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ049	BR8	20/05/2022	17:20	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ050	BR6	25/05/2022	16:32	Buzzard	1	highly modified/non-native woodland and improved grassland, soaring, heading east.	suitable nesting habitat; possible breeder	CR
BZ051	BR7	26/05/2022	16:44	Buzzard	1	highly modified/non-native woodland and cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ052	BR7	30/05/2022	17:04	Buzzard	1	improved grassland, flying, mobbed by female kestrel.	suitable nesting habitat; possible breeder	CR
BZ053	BR1	07/06/2022	17:41	Buzzard	1	cutover bog and scrub, hunting	suitable nesting habitat; possible breeder	CR
BZ054	BR1	07/06/2022	18:01	Buzzard	1	scrub and cutover bog, flying	suitable nesting habitat; possible breeder	CR
BZ055	BR1	07/06/2022	18:20	Buzzard	1	cutover bog and scrub, flying	suitable nesting habitat; possible breeder	CR
BZ056	BR2	08/06/2022	18:02	Buzzard	1	cutover bog, scrub and improved grassland, flying	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ057	BR2	08/06/2022	19:42	Buzzard	1	improved grassland, cutover bog and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	CR
BZ058	BR4	09/06/2022	15:09	Buzzard	1	cutover bog, scrub and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	CR
BZ059	BR4	09/06/2022	15:44	Buzzard	1	scrub and cutover bog, flying, observed getting mobbed by kestrel.	suitable nesting habitat; possible breeder	CR
BZ060	BR4	09/06/2022	16:04	Buzzard	1	scrub, conifer plantation and cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ061	BR4	09/06/2022	16:36	Buzzard	1	scrub and conifer plantation, soaring	suitable nesting habitat; possible breeder	CR
BZ062	BR4	09/06/2022	16:46	Buzzard	1	short rotation coppice, conifer plantation and cutover bog, flying, observed getting mobbed by kestrel.	suitable nesting habitat; possible breeder	CR
BZ063	BR4	09/06/2022	17:11	Buzzard	1	scrub and conifer plantation, soaring	suitable nesting habitat; possible breeder	CR
BZ064	BR8	10/06/2022	12:23	Buzzard	1	improved grassland, flying, observed getting mobbed by kestrel.	suitable nesting habitat; possible breeder	CR
BZ065	BR8	10/06/2022	12:26	Buzzard	1	improved grassland, flying, heading north.	suitable nesting habitat; possible breeder	CR
BZ066	BR8	10/06/2022	12:42	Buzzard	2	improved grassland, flying, pair observed heading north.	pair; probable breeding	CR
BZ068	BR6	10/06/2022	14:54	Buzzard	1	cutover bog, flying, heading south.	suitable nesting habitat; possible breeder	CR
BZ069	BR7	15/06/2022	14:09	Buzzard	2	improved grassland, flying, pair observed getting mobbed by female kestrel.	pair; probable breeding	CR
BZ070	BR7	15/06/2022	14:45	Buzzard	2	improved grassland, cutover bog and conifer plantation, flying, heading north.	pair; probable breeding	CR
BZ071	BR7	15/06/2022	16:04	Buzzard	1	cutover bog and improved grassland, flying	pair; probable breeding	CR
BZ072	BR7	09/07/2022	12:01	Buzzard	1	cutover bog and highly modified/non-native woodland, roosting/flying, intially observed perched on telegraph pole before heading north.	suitable nesting habitat; possible breeder	CR
BZ073	BR7	09/07/2022	13:03	Buzzard	1	highly modified/non-native woodland, soaring	suitable nesting habitat; possible breeder	CR
BZ074	BR7	09/07/2022	13:19	Buzzard	2	cutover bog and improved grassland, flying	pair; probable breeding	CR
BZ075	BR1	11/07/2022	13:13	Buzzard	2	cutover bog and conifer plantation, soaring	pair; probable breeding	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ076	BR1	11/07/2022	13:16	Buzzard	2	conifer plantation and cutover bog, soaring	pair; probable breeding	CR
BZ077	BR1	11/07/2022	13:38	Buzzard	1	conifer plantation, flying	suitable nesting habitat; possible breeder	CR
BZ078	BR1	11/07/2022	15:06	Buzzard	1	conifer plantation, soaring	suitable nesting habitat; possible breeder	CR
BZ079	BR3	11/07/2022	16:04	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ080	BR3	11/07/2022	16:52	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ081	BR3	11/07/2022	17:11	Buzzard	1	conifer plantation and cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ082	BR3	11/07/2022	18:33	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ083	BR8	14/07/2022	16:12	Buzzard	2	improved grassland, calling, pair heard calling.	pair; probable breeding	CR
BZ093	BR8	14/07/2022	18:13	Buzzard	1	improved grassland and conifer plantation, calling/soaring, observed calling from tree before leaving area heading west.	suitable nesting habitat; possible breeder	CR
BZ094	BR8	14/07/2022	18:46	Buzzard	1	improved grassland, calling/soaring, observed calling from tree before heading west.	suitable nesting habitat; possible breeder	CR
BZ095	BR2	19/07/2022	16:02	Buzzard	1	cutover bog and scrub, flying	suitable nesting habitat; possible breeder	CR
BZ096	BR4	05/04/2023	16:24	Buzzard	1	improved grassland, calling	suitable nesting habitat; possible breeder	CR
BZ097	BR4	05/04/2023	16:25	Buzzard	1	improved grassland, flying/calling	suitable nesting habitat; possible breeder	CR
BZ098	BR4	05/04/2023	16:27	Buzzard	1	improved grassland, soaring/call, observed soaring with another buzzard	suitable nesting habitat; possible breeder	CR
BZ099	BR4	05/04/2023	16:29	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ100	BR7	13/04/2023	10:13	Buzzard	1	cutover bog and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	CR
BZ101	BR7	13/04/2023	10:35	Buzzard	2	cutover bog, soaring	pair; probable breeding	CR
BZ102	BR7	13/04/2023	11:45	Buzzard	2	cutover bog and improved grassland, soaring	pair; probable breeding	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ104	BR7	13/04/2023	11:55	Buzzard	1	improved grassland, flying, part of a pair. headed east.	suitable nesting habitat; possible breeder	CR
BZ105	BR7	13/04/2023	11:55	Buzzard	1	improved grassland, flying, part of a pair. headed north.	suitable nesting habitat; possible breeder	CR
BZ106	BR8	14/04/2023	11:12	Buzzard	1	conifer plantation, soaring	suitable nesting habitat; possible breeder	CR
BZ107	BR8	14/04/2023	11:37	Buzzard	1	improved grassland, calling	suitable nesting habitat; possible breeder	CR
BZ108	BR1	14/04/2023	14:38	Buzzard	1	conifer plantation, cutover bog and improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ109	BR1	14/04/2023	14:54	Buzzard	1	cutover bog and improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ110	BR3	17/04/2023	11:42	Buzzard	1	conifer plantation, soaring	suitable nesting habitat; possible breeder	CR
BZ111	BR3	17/04/2023	11:49	Buzzard	3	conifer plantation, soaring	pair; probable breeding	CR
BZ112	BR3	17/04/2023	13:37	Buzzard	1	cutover bog and improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ113	BR3	17/04/2023	14:46	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ114	BR2	03/05/2023	13:00	Buzzard	1	improved grassland, flying, mobbed by hooded crows and ravens.	suitable nesting habitat; possible breeder	CR
BZ115	BR8	11/05/2023	17:08	Buzzard	1	highly modified/non-native woodland and cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ116	BR8	11/05/2023	18:58	Buzzard	1	improved grassland and highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	#REF!
BZ117	BR8	11/05/2023	18:58	Buzzard	1		suitable nesting habitat; possible breeder	#REF!
BZ118	BR7	16/05/2023	16:10	Buzzard	3	cutover bog, soaring	pair; probable breeding	CR
BZ119	BR7	16/05/2023	18:06	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ120	BR7	16/05/2023	18:18	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ121	BR6	18/05/2023	14:42	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ122	BR6	18/05/2023	15:06	Buzzard	2	highly modified/non-native woodland and improved grassland, soaring	pair; probable breeding	CR
BZ123	BR3	07/06/2023	17:46	Buzzard	1	highly modified/non-native woodland and improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ124	BR3	07/06/2023	17:50	Buzzard	1	highly modified/non-native woodland, soaring	suitable nesting habitat; possible breeder	CR
BZ125	BR3	07/06/2023	18:29	Buzzard	1	improved grassland and active quarries and mines, soaring	suitable nesting habitat; possible breeder	CR
BZ126	BR3	07/06/2023	18:43	Buzzard	1	highly modified/non-native woodland and improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ127	BR8	15/06/2023	17:42	Buzzard	1	improved grassland and depositing/lowland rivers, soaring	suitable nesting habitat; possible breeder	CR
BZ128	BR2	22/06/2023	13:59	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ129	BR7	22/06/2023	16:07	Buzzard	1	improved grassland and depositing/lowland rivers, soaring	suitable nesting habitat; possible breeder	CR
BZ130	BR7	22/06/2023	16:23	Buzzard	1	highly modified/non-native woodland and cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ131	BR7	22/06/2023	16:57	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ132	BR7	22/06/2023	17:45	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ133	BR1	23/06/2023	15:06	Buzzard	1	cutover bog, flying	suitable nesting habitat; possible breeder	CR
BZ134	BR1	23/06/2023	15:15	Buzzard	1	cutover bog, soaring	suitable nesting habitat; possible breeder	CR
BZ135	BR1	23/06/2023	15:32	Buzzard	1	cutover bog, hunting	suitable nesting habitat; possible breeder	CR
BZ136	BR1	23/06/2023	15:37	Buzzard	1	cutover bog, flying	suitable nesting habitat; possible breeder	CR
BZ137	BR6	29/06/2023	14:38	Buzzard	2	cutover bog, highly modified/non-native woodland and improved grassland, soaring/calling	pair; probable breeding	CR
BZ138	BR6	29/06/2023	14:41	Buzzard	1	highly modified/non-native woodland, soaring	pair; probable breeding	CR
BZ139	BR6	29/06/2023	15:05	Buzzard	3	highly modified/non-native woodland and cutover bog, soaring	pair; probable breeding	CR

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ140	BR6	29/06/2023	16:24	Buzzard	2	cutover bog and improved grassland, soaring/calling	pair; probable breeding	CR
BZ141	BR3	05/07/2023	12:54	Buzzard	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ142	BR3	05/07/2023	15:31	Buzzard	1	improved grassland and active quarries and mines, flying/calling	suitable nesting habitat; possible breeder	CR
BZ143	BR4	05/07/2023	18:21	Buzzard	1	improved grassland and cutover bog, flying/calling	suitable nesting habitat; possible breeder	CR
BZ144	BR4	05/07/2023	19:07	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ145	BR1	14/07/2023	11:08	Buzzard	1	cutover bog, highly modified/non-native woodland and improved grassland, flying	suitable nesting habitat; possible breeder	CR
BZ146	BR7	20/07/2023	16:37	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ147	BR6	26/07/2023	14:30	Buzzard	1	cutover bog, flying/calling	suitable nesting habitat; possible breeder	CR
BZ148	BR6	26/07/2023	16:43	Buzzard	1	improved grassland, soaring	suitable nesting habitat; possible breeder	CR
BZ149	BR6	26/07/2023	16:49	Buzzard	1	cutover bog, flying	suitable nesting habitat; possible breeder	CR
BZ150	BR2	09/04/2024	13:47	Buzzard	2	cutover bog and scrub, soaring	pair; probable breeding	CG
BZ151	BR2	09/04/2024	15:25	Buzzard	1	improved agricultural grassland, perching, commuting, mobbed by hooded crow	suitable nesting habitat; possible breeder	CG
BZ152	BR11	16/04/2024	12:39	Buzzard	2	mixed broadleaved woodland, bogs and scrub, gliding	suitable nesting habitat; possible breeder	NL
BZ153	BR11	16/04/2024	13:52	Buzzard	1	scrub, soaring	suitable nesting habitat; possible breeder	NL
BZ154	BR8	30/04/2024	10:21	Buzzard	1	mixed broadleaved/conifer woodland, alarm call, heard not seen	suitable nesting habitat; possible breeder	NL
BZ155	BR4	15/05/2024	10:38	Buzzard	1	linear woodland/scrub, soaring, mobbed by crow over scrub	suitable nesting habitat; possible breeder	NL
BZ156	BR12	15/05/2024	11:06	Buzzard	1	linear woodland/scrub and semi-natural grassland, soaring	suitable nesting habitat; possible breeder	NL
BZ157	BR11	15/05/2024	12:49	Buzzard	1	hedgerows, flushed	suitable nesting habitat; possible breeder	NL

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ158	BR8	23/05/2024	08:40	Buzzard	1	mixed broadleaved/conifer woodland, semi-natural grassland and improved agricultural grassland, travelling, hunting	suitable nesting habitat; possible breeder	NL
BZ159	BR8	23/05/2024	08:58	Buzzard	1	mixed broadleaved woodland, scrub and mixed broadleaved/conifer woodland, travelling	suitable nesting habitat; possible breeder	NL
BZ160	BR9	23/05/2024	11:48	Buzzard	1	scrub, flying	suitable nesting habitat; possible breeder	NL
BZ161	BR9	23/05/2024	12:50	Buzzard	1	mixed broadleaved woodland, flying	suitable nesting habitat; possible breeder	NL
BZ162	BR2	28/05/2024	09:39	Buzzard	1	semi-natural woodland, hovering	suitable nesting habitat; possible breeder	NL
BZ163	BR12	11/06/2024	11:29	Buzzard	1	mixed broadleaved woodland and conifer plantation, soaring	suitable nesting habitat; possible breeder	NL
BZ164	BR12	11/06/2024	11:58	Buzzard	1	dry meadows and grassy verges and mixed broadleaved woodland, mobbed, perched, flushed by hooded crows from long grass. flew and perched in beech tree before flying off	suitable nesting habitat; possible breeder	NL
BZ165	BR12	11/06/2024	12:09	Buzzard	1	mixed broadleaved woodland, soaring	suitable nesting habitat; possible breeder	NL
BZ166	BR12	11/06/2024	12:30	Buzzard	1	dry meadows and grassy verges and mixed broadleaved woodland, gliding, watching passerines on freshly cut field	suitable nesting habitat; possible breeder	NL
BZ168	BR9	20/06/2024	09:39	Buzzard	1	conifer plantation, soaring	suitable nesting habitat; possible breeder	NL
BZ169	BR8	20/06/2024	14:14	Buzzard	1	semi-natural woodland and improved agricultural grassland, soaring, calling	suitable nesting habitat; possible breeder	NL
BZ170	BR4	25/06/2024	09:46	Buzzard	1	improved agricultural grassland and highly modified/non-native woodland, travelling	flyover; non-breeding	NL
BZ171	BR2	27/06/2024	09:08	Buzzard	1	improved agricultural grassland and highly modified/non-native woodland, hunting	suitable nesting habitat; possible breeder	NL
BZ172	BR4	04/07/2024	08:37	Buzzard	1	highly modified/non-native woodland and scrub/transitional woodland, hunting	suitable nesting habitat; possible breeder	NL
BZ173	BR4	04/07/2024	09:20	Buzzard	1	improved agricultural grassland and scrub/transitional woodland, calling, hunting	suitable nesting habitat; possible breeder	NL
BZ174	BR12	04/07/2024	12:20	Buzzard	2	improved agricultural grassland and highly modified/non-native woodland, pair hunting	pair; probable breeding	NL
BZ176	BR12	04/07/2024	12:29	Buzzard	1	improved agricultural grassland and highly modified/non-native woodland, hunting, perched, soaring	suitable nesting habitat; possible breeder	NL

Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
BZ178	BR12	04/07/2024	14:18	Buzzard	2	highly modified/non-native woodland and improved agricultural grassland, pair soaring, hunting	pair; probable breeding	NL
BZ179	BR12	04/07/2024	14:23	Buzzard	1	highly modified/non-native woodland and improved agricultural grassland, flying, hunting	suitable nesting habitat; possible breeder	NL
BZ180	BR11	09/07/2024	10:53	Buzzard	1	highly modified/non-native woodland, flying	suitable nesting habitat; possible breeder	NL
BZ182	BR9	18/07/2024	09:00	Buzzard	1	conifer plantation and scrub, hunting	suitable nesting habitat; possible breeder	NL
BZ183	BR9	18/07/2024	09:59	Buzzard	1	conifer plantation and scrub, flushed, perched, travelling, flushed by lapwing from ground. flew to tree and then flew off.	suitable nesting habitat; possible breeder	NL
BZ184	BR9	18/07/2024	11:20	Buzzard	2	conifer plantation and scrub, hunting, flushed, soaring, initial buzzard flushed second buzzard out of woodland. soared together for a bit and then went seperate ways.	suitable nesting habitat; possible breeder	NL
BZ185	BR8	18/07/2024	12:33	Buzzard	1	conifer plantation and scrub, flying, perched	suitable nesting habitat; possible breeder	NL
BZ186	BR8	18/07/2024	13:07	Buzzard	1	hedgerows, flying	suitable nesting habitat; possible breeder	NL
BZ187	BR3	25/07/2024	12:43	Buzzard	1	hedgerows, flying	suitable nesting habitat; possible breeder	NL
BZ188	BR3	25/07/2024	13:05	Buzzard	1	improved agricultural grassland, flying, same bird as previous	flyover; non-breeding	NL
BZ189	BR3	25/07/2024	13:57	Buzzard	1	improved agricultural grassland and hedgerows, flying, same bird as previous	flyover; non-breeding	NL

Table 16-4 Buzzard Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ001	21/01/2021	10:30	-	Buzzard	1	cutover bog and scrub; travelling, in band 2 (wintering)	JH
BZ002	21/01/2021	13:49	-	Buzzard	1	cutover bog and scrub; travelling, landing in scrub (wintering)	JH
BZ003	13/10/2021	11:21	-	Buzzard	1	cutover bog and improved grassland; flying, buzzard observed heading south. (wintering)	CR
BZ004	13/10/2021	12:36	-	Buzzard	1	improved grassland and conifer plantation; roosting/flying, buzzard observed perched on telegraph before departing at 12:42. last seen heading west. (wintering)	CR
BZ005	15/10/2021	14:20	-	Buzzard	1	bog woodland and cutover bog; flying, buzzard observed heading east. (wintering)	CR
BZ006	13/01/2022	12:12	-	Buzzard	1	improved grassland and highly modified/non-native woodland; flying (wintering)	CR
BZ007	17/01/2022	13:56	-	Buzzard	1	scrub and cutover bog; flying, heading north east. (wintering)	CR
BZ008	17/01/2022	14:17	-	Buzzard	1	scrub and cutover bog; flying, heading west. (wintering)	CR
BZ009	17/01/2022	14:42	-	Buzzard	1	cutover bog and highly modified/non-native woodland; roosting (wintering)	CR
BZ010	21/03/2022	13:00	-	Buzzard	1	cutover bog and scrub; flying, heading north east. (wintering)	CR
BZ011	22/03/2022	14:10	-	Buzzard	1	scrub and cutover bog; flying, heading north west. (wintering)	CR
BZ012	22/03/2022	15:08	-	Buzzard	2	cutover bog, scrub and improved grassland; flying, heading west. (wintering)	CR
BZ013	05/10/2022	14:42	-	Buzzard	1	cutover bog and scrub; flying (wintering)	CR
BZ014	22/11/2022	13:55	-	Buzzard	1	highly modified/non-native woodland and improved grassland; roosting (wintering)	CR
BZ015	25/11/2022	13:37	-	Buzzard	1	highly modified/non-native woodland; soaring (wintering)	CR
BZ016	30/01/2023	15:22	-	Buzzard	1	scrub and cutover bog; flying (wintering)	CR
BZ017	02/03/2023	15:00	-	Buzzard	1	cutover bog; roosting (wintering)	CR
BZ018	22/03/2023	12:31	-	Buzzard	1	improved grassland; soaring (wintering)	CR
BZ019	22/03/2023	12:33	-	Buzzard	2	improved grassland; soaring (wintering)	CR
BZ020	22/03/2023	13:25	-	Buzzard	1	cutover bog and active quarries and mines; flying (wintering)	CR
BZ021	28/03/2023	14:24	-	Buzzard	2	cutover bog and improved grassland; flying (wintering)	CR
BZ022	28/03/2023	15:55	-	Buzzard	1	improved grassland and highly modified/non-native woodland; soaring (wintering)	CR
BZ023	28/03/2023	16:07	-	Buzzard	1	improved grassland; flying (wintering)	CR
BZ024	03/10/2023	17:22	-	Buzzard	1	cutover bog; soaring (wintering)	CR
BZ025	03/10/2023	17:43	-	Buzzard	1	highly modified/non-native woodland; soaring (wintering)	CR
BZ026	09/10/2023	16:20	-	Buzzard	1	improved grassland; flying (wintering)	CR
BZ027	09/10/2023	17:00	-	Buzzard	1	improved grassland; roosting (wintering)	CR
BZ028	28/11/2023	12:45	-	Buzzard	1	improved grassland; flying (wintering)	CR

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
BZ029	10/01/2024	11:25	-	Buzzard	1	improved grassland; flying (wintering)	CR
BZ030	11/01/2024	14:17	-	Buzzard	1	improved grassland; flying (wintering)	CR
BZ031	26/01/2024	13:06	-	Buzzard	1	improved grassland and highly modified/non-native woodland; hunting (wintering)	CR
BZ032	26/01/2024	13:44	-	Buzzard	1	highly modified/non-native woodland; flying (wintering)	CR
BZ033	21/03/2024	14:10	-	Buzzard	1		#REF!
BZ034	27/03/2024	13:25	-	Buzzard	2	highly modified/non-native woodland; soaring (wintering)	CR
BZ035	27/03/2024	13:45	-	Buzzard	2	highly modified/non-native woodland; soaring (wintering)	CR
BZ036	13/01/2025	11:06	T1	Buzzard	1	conifer plantation and scrub/transitional woodland; flying, calling, mobbed, chased by a crow for few seconds (wintering)	ZE
BZ037	04/03/2025	10:35	T1	Buzzard	1	conifer plantation and highly modified/non-native woodland; circling, appeared from and disappeared back into the trees (wintering)	ZE
BZ038	04/03/2025	10:55	T1	Buzzard	1	conifer plantation and highly modified/non-native woodland; circling, flying, possibly the same bird (wintering)	ZE
BZ039	04/03/2025	12:01	T1	Buzzard	1	cutover bog; flying, circling (wintering)	ZE
BZ040	04/03/2025	12:23	T2	Buzzard	1	bogs and scrub/transitional woodland; flying, landed, travelled just above the ground (wintering)	ZE
BZ041	04/03/2025	12:37	T2	Buzzard	3	cutover bog and highly modified/non-native woodland; flying, calling (wintering)	ZE
BZ042	04/03/2025	13:19	T2	Buzzard	1	linear woodland/scrub, improved grassland and scrub/transitional woodland; flying, circling (wintering)	ZE
BZ043	04/03/2025	13:31	T2	Buzzard	1	improved agricultural grassland and linear woodland/scrub; flying (wintering)	ZE
BZ044	04/03/2025	13:44	T2	Buzzard	1	improved grassland, linear woodland/scrub and scrub/transitional woodland; flying, circling (wintering)	ZE

Table 16-5 Buzzard Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ001	Hen Harrier Roost Survey; hhvp4	09/12/2020	08:20	Buzzard	1	cutover bog, conifer plantation and scrub; travelling	JH
BZ002	Hen Harrier Roost Survey; HHVP2	09/12/2020	14:41	Buzzard	1	cutover bog, upland blanket bog and scrub; hunting	JH
BZ003	Waterbird Distribution and Abundance Survey; Boora	09/02/2021	14:11	Buzzard	1	improved agricultural grassland and conifer plantation; travelling	JH
BZ004	Hen Harrier Roost Survey; Curraghalassa Bog	18/02/2021	16:33	Buzzard	1	upland blanket bog and scrub; travelling, in band 2	JH
BZ005	Hen Harrier Roost Survey; HHVP1	19/02/2021	16:19	Buzzard	1	upland blanket bog and conifer plantation; travelling	JH
BZ006	Hen Harrier Roost Survey; HHVP1	19/02/2021	16:55	Buzzard	1	upland blanket bog and conifer plantation; travelling	JH
BZ007	Hen Harrier Roost Survey; HHVP1	19/02/2021	16:58	Buzzard	1	upland blanket bog and scrub; travelling, landing on pine tree on raised bog	JH
BZ008	Hen Harrier Roost Survey; HHVP1	19/02/2021	17:11	Buzzard	1	upland blanket bog; travelling, landing on raised bog	JH
BZ009	Hen Harrier Roost Survey; HHVP4	24/02/2021	17:15	Buzzard	1	conifer plantation and improved agricultural grassland; travelling, being mobbed by hc	JH
BZ010	Hen Harrier Roost Survey; Curraghalassa Bog	03/03/2021	17:50	Buzzard	1	upland blanket bog, scrub and hedgerows; travelling, landing in treeline	JH
BZ011	Hen Harrier Roost Survey; HHVP5	11/03/2021	17:54	Buzzard	1	cutover bog, scrub and improved agricultural grassland; hunting and soaring	JH
BZ012	Waterbird Distribution and Abundance Survey; Finnamore Lakes	23/04/2021	14:19	Buzzard	1	cutover bog, conifer plantation and other artificial lakes and ponds; flying high into the sky, buzzard seen flying high (over 200m) over finnamore lakes, continued to ascend in altitude and flew out of sight	SOB
BZ013	Waterbird Distribution and Abundance Survey; Finnamore Lakes	29/04/2021	12:50	Buzzard	1	conifer plantation, cutover bog and improved agricultural grassland; flying, buzzard circling high into sky over 200m above woods. lost sight after 4 mins.	SOB
BZ015	Waterbird Distribution and Abundance Survey; Noggusduff	18/05/2021	14:59	Buzzard	1	cutover bog and conifer plantation; soaring	JG
BZ016	Waterbird Distribution and Abundance Survey; Finnamor's Lakes	27/05/2021	18:15	Buzzard	1	conifer plantation, amenity grassland (improved) and acid oligotrophic lakes; flying	JG
BZ017	Breeding Woodcock Survey; Lemanaghan bog	01/06/2021	21:49	Buzzard	1	cutover bog; flying	JG
BZ018	Breeding Woodcock Survey; Lemanaghan bog south	14/06/2021	21:19	Buzzard	1	recently-felled woodland and cutover bog; flying	JG
BZ019	Breeding Woodcock Survey; Lemanaghan bog SE	23/06/2021	22:28	Buzzard	1	cutover bog and semi-natural woodland; flying, was perched on a tree, flushed when i walked past	JG

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ020	Waterbird Distribution and Abundance Survey; Boora	03/08/2021	15:43	Buzzard	3	improved agricultural grassland and conifer plantation; flushed, travelling flight, flushed them when i drove past in car	JG
BZ021	Vantage Point Survey; Corbane	15/09/2021	14:10	Buzzard	1	cutover bog; gliding, calling, buzzard circling around over bog. seen on way to vp 1 of 4 buzzards observed later.	SOB
BZ022	Waterbird Distribution and Abundance Survey; Grand Canal	12/10/2021	11:17	Buzzard	1	canals and highly modified/non-native woodland; perched, flying, buzzard perched on tree on edge of canal. left the area heading north.	CR
BZ023	Winter Walkover Survey; Cloghan Lake	10/11/2021	20:12	Buzzard	1	lakes and ponds, improved grassland and highly modified/non-native woodland; flying, heading west.	CR
BZ024	Waterbird Distribution and Abundance Survey; Grand Canal	24/11/2021	09:30	Buzzard	1	improved grassland; roosting, perched on tree top.	CR
BZ025	Waterbird Distribution and Abundance Survey; Tumduff	24/11/2021	14:17	Buzzard	2	highly modified/non-native woodland and improved grassland; flying, pair observed heading east.	CR
BZ026	Hen Harrier Roost Survey; HHVP2	02/12/2021	16:41	Buzzard	1	cutover bog and highly modified/non-native woodland; flying/calling, heading east	CR
BZ027	Waterbird Distribution and Abundance Survey; Tumduff	09/12/2021	14:14	Buzzard	2	improved grassland; flying, pair observed heading east.	CR
BZ028	Hen Harrier Roost Survey; HHVP5	13/12/2021	16:00	Buzzard	1	improved grassland and highly modified/non-native woodland; flying, heading west	CR
BZ029	Hen Harrier Roost Survey; HHVP5	13/01/2022	16:58	Buzzard	1	bogs and improved grassland; flying	CR
BZ030	Waterbird Distribution and Abundance Survey; Tumduff	28/01/2022	14:29	Buzzard	2	improved grassland; flying, pair of buzzards observed heading west.	CR
BZ031	Hen Harrier Roost Survey; HHVP2	08/02/2022	17:02	Buzzard	1	bogs and conifer plantation; flying, heading north west.	CR
BZ032	Waterbird Distribution and Abundance Survey; Tumduff	09/02/2022	12:15	Buzzard	1	improved grassland and conifer plantation; flying	CR
BZ033	Hen Harrier Roost Survey; HHVP4	10/02/2022	17:32	Buzzard	1	improved grassland; flying	CR
BZ034	Vantage Point Survey; LEMANAGHAN VP6	01/03/2022	09:38	Buzzard	2	cutover bog; flying	NS
BZ035	Vantage Point Survey; VP6	11/03/2022	16:18	Buzzard	2	cutover bog; b	NS
BZ036	Waterbird Distribution and Abundance Survey; Finnamore lakes	16/03/2022	13:47	Buzzard	1	improved grassland and conifer plantation; soaring	CR
BZ037	Hen Harrier Roost Survey; HHVP2	24/03/2022	18:10	Buzzard	1	cutover bog and highly modified/non-native woodland; flying, observed getting mobbed by kestrel.	CR
BZ038	Waterbird Distribution and Abundance Survey; Tummduff	01/04/2022	11:15	Buzzard	1	improved agricultural grassland and mixed broadleaved/conifer woodland; soaring	KS
BZ039	Waterbird Distribution and Abundance Survey; Turran	01/04/2022	12:50	Buzzard	1	mixed broadleaved/conifer woodland; soaring	KS

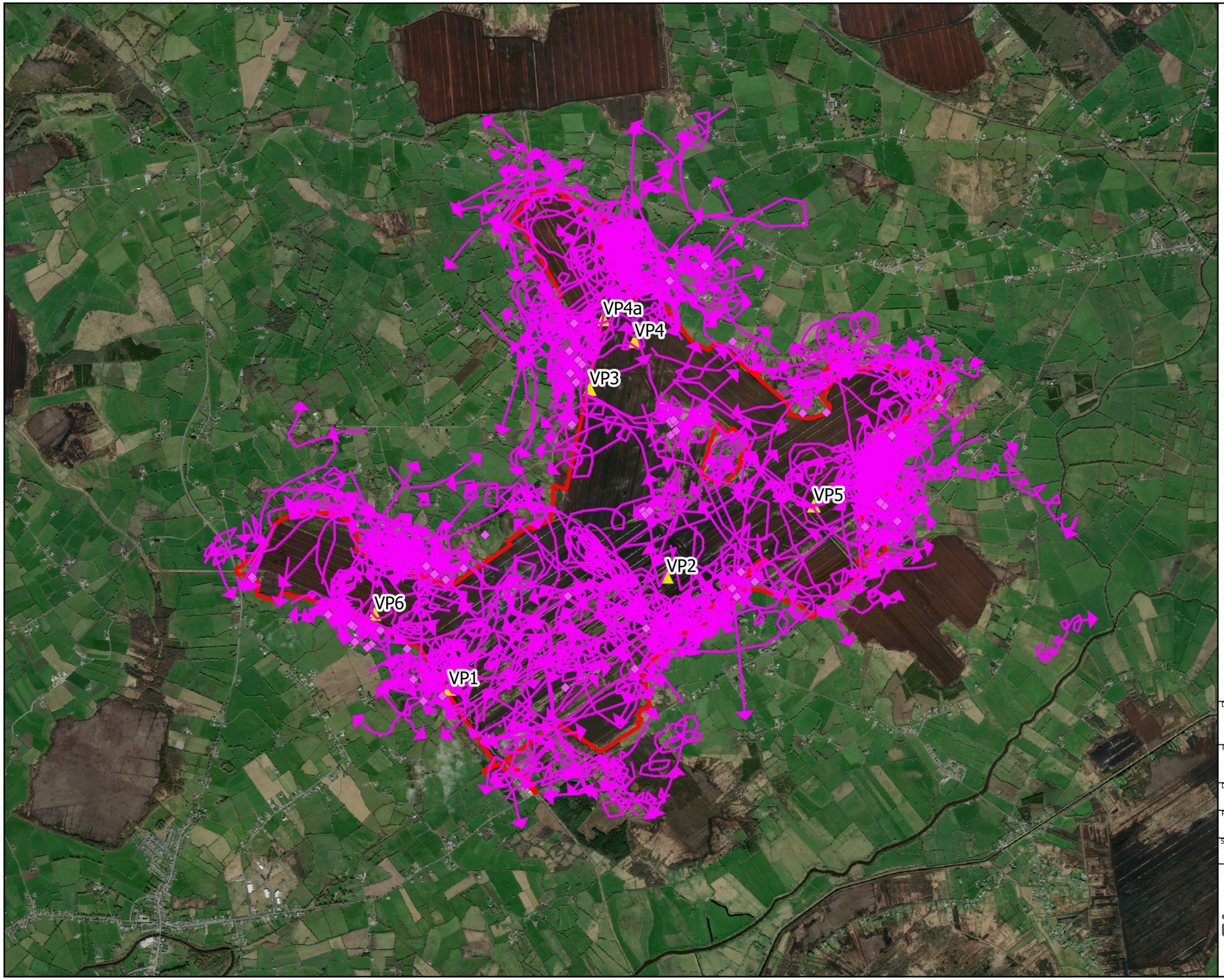
Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ040	Waterbird Distribution and Abundance Survey; Tumduff	26/04/2022	12:34	Buzzard	1	improved grassland; flying	CR
BZ041	Waterbird Distribution and Abundance Survey; Turruan Nature Park	26/04/2022	14:06	Buzzard	1	lakes and ponds and conifer plantation; flying	CR
BZ042	Breeding Woodcock Survey; T1 (near VP5)	17/05/2022	20:19	Buzzard	1	bog woodland; soaring	CR
BZ043	Breeding Woodcock Survey; Near VP1	30/05/2022	21:21	Buzzard	1	scrub and cutover bog; flying	CR
BZ044	Breeding Woodcock Survey; Near VP6	09/06/2022	21:38	Buzzard	1	cutover bog, scrub and conifer plantation; flying	CR
BZ045	Breeding Woodcock Survey; T3	20/06/2022	22:22	Buzzard	1	cutover bog and scrub; flying, heading north.	CR
BZ046	Breeding Raptor Survey; BR8	14/07/2022	15:55	Buzzard	1	improved grassland; flying	CR
BZ047	Waterbird Distribution and Abundance Survey; Noggusduff	30/08/2022	12:59	Buzzard	2	cutover bog; soaring	CR
BZ048	Waterbird Distribution and Abundance Survey; Tumduff	30/08/2022	16:06	Buzzard	1	conifer plantation; calling	CR
BZ049	Waterbird Distribution and Abundance Survey; Tumduff	15/09/2022	16:29	Buzzard	1	highly modified/non-native woodland; calling	CR
BZ050	Waterbird Distribution and Abundance Survey; Tumduff	30/09/2022	15:15	Buzzard	2	improved grassland; flying	CR
BZ051	Waterbird Distribution and Abundance Survey; Tumduff	30/09/2022	15:20	Buzzard	1	turloughs and improved grassland; flying	CR
BZ052	Waterbird Distribution and Abundance Survey; Turruan Nature Park	30/09/2022	16:30	Buzzard	1	lakes and ponds and highly modified/non-native woodland; flying	CR
BZ053	Waterbird Distribution and Abundance Survey; Drinagh	07/12/2022	13:06	Buzzard	1	improved grassland and scrub; flying, mobbed by kestrel.	CR
BZ054	Waterbird Distribution and Abundance Survey; Drinagh	07/12/2022	13:30	Buzzard	2	lakes and ponds; flying	CR
BZ055	Waterbird Distribution and Abundance Survey; Tumduff	07/12/2022	14:49	Buzzard	2	improved grassland and highly modified/non-native woodland; flying	CR
BZ056	Waterbird Distribution and Abundance Survey; Tumduff	07/12/2022	14:54	Buzzard	1	improved grassland and lakes and ponds; flying	CR
BZ057	Waterbird Distribution and Abundance Survey; Turruan Nature Park	19/12/2022	12:00	Buzzard	1	lakes and ponds; flying	CR
BZ058	Waterbird Distribution and Abundance Survey; Tumduff	19/12/2022	12:44	Buzzard	2	improved grassland; flying	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ059	Waterbird Distribution and Abundance Survey; Tumduff	10/01/2023	14:56	Buzzard	1	lakes and ponds, improved grassland and highly modified/non-native woodland; flying	CR
BZ060	Hen Harrier Roost Survey; Tumduff	26/01/2023	13:36	Buzzard	2	lakes and ponds and improved grassland; soaring	CR
BZ061	Waterbird Distribution and Abundance Survey; Lough Boora	26/01/2023	14:15	Buzzard	2	improved grassland and lakes and ponds; soaring	CR
BZ062	Vantage Point Survey; VP6	14/02/2023	07:07	Buzzard	1	improved grassland; calling	CR
BZ063	Hen Harrier Roost Survey; HHVP2	22/02/2023	17:24	Buzzard	1	cutover bog; flying	CR
BZ064	Waterbird Distribution and Abundance Survey; Noggusduff	07/03/2023	11:37	Buzzard	1	lakes and ponds; soaring	CR
BZ065	Waterbird Distribution and Abundance Survey; Lough Boora	12/04/2023	16:44	Buzzard	1	improved grassland, lakes and ponds and highly modified/non-native woodland; flying	CR
BZ066	Waterbird Distribution and Abundance Survey; Lough Boora	12/04/2023	17:26	Buzzard	1	improved grassland and lakes and ponds; soaring	CR
BZ067	Waterbird Distribution and Abundance Survey; Drinagh	12/05/2023	14:28	Buzzard	1	improved grassland; flying	CR
BZ068	Breeding Kingfisher Survey; North of site near VP2.	19/05/2023	18:40	Buzzard	1	cutover bog; soaring	CR
BZ069	Waterbird Distribution and Abundance Survey; Tumduff	25/05/2023	12:32	Buzzard	1	conifer plantation; soaring	CR
BZ070	Waterbird Distribution and Abundance Survey; Turruan Nature Park	25/05/2023	15:11	Buzzard	1	lakes and ponds and highly modified/non-native woodland; soaring	CR
BZ071	Waterbird Distribution and Abundance Survey; Tumduff	06/10/2023	15:53	Buzzard	1	improved grassland; flying	CR
BZ072	Hen Harrier Roost Survey; HHVP5	13/11/2023	16:11	Buzzard	1	improved grassland; flying	CR
BZ073	Waterbird Distribution and Abundance Survey; Lough Boora	08/12/2023	13:36	Buzzard	1	improved grassland; flying	CR
BZ074	Waterbird Distribution and Abundance Survey; Cloghan Lake	21/12/2023	11:37	Buzzard	1	improved grassland; roosting	CR
BZ075	Waterbird Distribution and Abundance Survey; Turruan Nature Park	21/12/2023	16:29	Buzzard	2	lakes and ponds; flying	CR
BZ076	Waterbird Distribution and Abundance Survey; Tumduff	03/01/2024	15:14	Buzzard	1	improved grassland and highly modified/non-native woodland; flying	CR
BZ077	Waterbird Distribution and Abundance Survey; Tumduff	03/01/2024	15:37	Buzzard	1	lakes and ponds; resting	CR

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ078	Waterbird Distribution and Abundance Survey; Turruan Nature Park	03/01/2024	16:26	Buzzard	1	improved grassland; resting	CR
BZ079	Hen Harrier Roost Survey; HHVP2	08/01/2024	13:54	Buzzard	1	cutover bog and highly modified/non-native woodland; flying	CR
BZ080	Vantage Point Survey; VP2	17/01/2024	11:39	Buzzard	1	scrub/transitional woodland and bogs; flying, perched for 4 minutes before flying off	JD
BZ081	Waterbird Distribution and Abundance Survey; Lough Boora	18/01/2024	16:59	Buzzard	2	lakes and ponds and highly modified/non-native woodland; soaring	CR
BZ082	Vantage Point Survey; VP1	24/01/2024	10:18	Buzzard	1	improved agricultural grassland and scrub/transitional woodland; calling, heard not seen	JD
BZ083	Waterbird Distribution and Abundance Survey; Tumduff	30/01/2024	10:00	Buzzard	1	improved grassland; resting	CR
BZ084	Waterbird Distribution and Abundance Survey; Tumduff	30/01/2024	10:38	Buzzard	1	improved grassland; flying	CR
BZ085	Waterbird Distribution and Abundance Survey; Tumduff	30/01/2024	10:52	Buzzard	2	improved grassland; resting	CR
BZ086	Vantage Point Survey; VP6	30/01/2024	12:16	Buzzard	1	scrub/transitional woodland and improved agricultural grassland; flying	JD
BZ087	Waterbird Distribution and Abundance Survey; Tumduff	12/02/2024	16:30	Buzzard	1	improved grassland; flying	CR
BZ088	Hen Harrier Roost Survey; HHVP1 (N62 road)	15/02/2024	16:02	Buzzard	1	improved grassland; soaring	CR
BZ089	Vantage Point Survey; VP1	20/02/2024	15:09	Buzzard	1	improved grassland; soaring	CR
BZ090	Hen Harrier Roost Survey; HHVP2	23/02/2024	15:25	Buzzard	1	cutover bog; soaring	CR
BZ091	Vantage Point Survey; VP2	08/03/2024	12:05	Buzzard	3	scrub/transitional woodland and cutover bog; soaring	CR
BZ092	Waterbird Distribution and Abundance Survey; Tumduff	13/03/2024	17:40	Buzzard	1	improved grassland; resting	CR
BZ093	Hen Harrier Roost Survey; HHVP5	19/03/2024	17:24	Buzzard	1	improved grassland; flying	CR
BZ095	Vantage Point Survey; VP1	27/03/2024	09:12	Buzzard	1	improved grassland; flying, calling	CR
BZ096	Vantage Point Survey; VP1	27/03/2024	10:21	Buzzard	1	improved grassland; flying, calling	CR
BZ097	Vantage Point Survey; vp6	28/03/2024	11:45	Buzzard	2	scrub/transitional woodland and improved agricultural grassland; flying, calling	JD
BZ098	Waterbird Distribution and Abundance Survey; Finnamore	11/04/2024	10:40	Buzzard	3	bogs; soaring	NL
BZ099	Waterbird Distribution and Abundance Survey; Lea More	11/04/2024	12:03	Buzzard	1	conifer plantation; flushed	NL

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ100	Vantage Point Survey; VP6	18/04/2024	15:44	Buzzard	1	improved agricultural grassland; soaring, outside of viewshed	NL
BZ101	Waterbird Distribution and Abundance Survey; Clara Bog	23/04/2024	10:43	Buzzard	1	bogs; soaring	NL
BZ102	Waterbird Distribution and Abundance Survey; Rahan	23/04/2024	11:10	Buzzard	3	improved agricultural grassland and canals; soaring	NL
BZ103	Waterbird Distribution and Abundance Survey; Cappaloughan	23/04/2024	11:17	Buzzard	1	improved agricultural grassland and canals; soaring	NL
BZ104	Waterbird Distribution and Abundance Survey; Grand Canal Way	23/04/2024	11:43	Buzzard	1	canals; perched on post	NL
BZ105	Waterbird Distribution and Abundance Survey; Finnamore Lakes	14/05/2024	11:23	Buzzard	1	mixed broadleaved woodland; soaring	NL
BZ106	Waterbird Distribution and Abundance Survey; R357	14/05/2024	11:55	Buzzard	1	conifer plantation; soaring	NL
BZ107	Waterbird Distribution and Abundance Survey; Lea More	14/05/2024	12:00	Buzzard	2	mixed broadleaved woodland; soaring	NL
BZ109	Waterbird Distribution and Abundance Survey; Lough Boora	14/05/2024	13:47	Buzzard	2	mixed broadleaved woodland and improved agricultural grassland; soaring	NL
BZ110	Vantage Point Survey; VP2	20/05/2024	07:20	Buzzard	1	bogs; mobbed, mobbed by hodded crow, then landed on wind speed mast.	PDC
BZ111	Waterbird Distribution and Abundance Survey; Tullymorerahan	30/05/2024	09:39	Buzzard	1	improved agricultural grassland; hunting	NL
BZ112	Vantage Point Survey; Island Lower	30/05/2024	10:10	Buzzard	1	mixed broadleaved woodland; circling	NL
BZ113	Waterbird Distribution and Abundance Survey; Finnamore Lakes	30/05/2024	10:34	Buzzard	1	mixed broadleaved/conifer woodland; soaring	NL
BZ114	Vantage Point Survey; VP2	19/06/2024	08:17	Buzzard	1	bogs; mobbed, mobbed by corvid, perched on mast	PDC
BZ115	Waterbird Distribution and Abundance Survey; VP2	19/06/2024	09:43	Buzzard	1	scrub/transitional woodland; soaring	PDC
BZ116	Vantage Point Survey; VP2	19/06/2024	11:16	Buzzard	1	scrub/transitional woodland; soaring	PDC
BZ117	Breeding Woodcock Survey; BWK1	30/06/2024	21:31	Buzzard	1	scrub/transitional woodland; soaring	SD
BZ118	Vantage Point Survey; Cappanalosset	15/07/2024	12:16	Buzzard	1	conifer plantation; soaring	PDC
BZ119	Vantage Point Survey; Lisdermot	16/07/2024	11:18	Buzzard	1	improved agricultural grassland; mobbed, travelling, chased by hooded crow very low over field	PDC

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
BZ120	Vantage Point Survey; vp5	19/07/2024	08:27	Buzzard	1	mixed broadleaved/conifer woodland; travelling	KS
BZ121	Vantage Point Survey; Killaghintober	12/08/2024	10:47	Buzzard	1	improved agricultural grassland; soaring	PDC
BZ122	Vantage Point Survey; Killaghintober	12/08/2024	12:09	Buzzard	1	bogs and scrub; travelling	PDC
BZ124	Vantage Point Survey; killaghintobar	18/09/2024	12:12	Buzzard	1	scrub and hedgerows; calling, heard not seen, at same time as 4 buzzards in sky in viewshed	PDC
BZ125	Waterbird Distribution and Abundance Survey; Lough Boora	31/10/2024	15:01	Buzzard	1	improved agricultural grassland; perched	FOD
BZ126	Hen Harrier Roost Survey; HHVP2	25/11/2024	15:59	Buzzard	1	semi-natural woodland; calling, heard not seen	CC
BZ127	Waterbird Distribution and Abundance Survey; loughboora	17/12/2024	13:36	Buzzard	1	improved agricultural grassland; chasing, chasing peregrine which was carrying prey	FOD
BZ128	Waterbird Distribution and Abundance Survey; Tumduff	07/01/2025	14:30	Buzzard	1	improved agricultural grassland; flying	ZE
BZ129	Hen Harrier Roost Survey; HHVP6	28/01/2025	16:34	Buzzard	1	bogs and scrub/transitional woodland; perched	ZE
BZ130	Waterbird Distribution and Abundance Survey; Lough Boora	29/01/2025	13:27	Buzzard	1	semi-natural woodland, lakes and ponds and semi-natural grassland; circling	ZE
BZ131	Waterbird Distribution and Abundance Survey; Tumduff	29/01/2025	14:10	Buzzard	1	improved grassland, linear woodland/scrub and semi-natural grassland; flying	ZE
BZ132	Vantage Point Survey; VP6	25/02/2025	14:08	Buzzard	1	semi-natural woodland; calling, heard calling behind viewshed	CC
BZ133	Hen Harrier Roost Survey; HHVP7	06/02/2025	16:39	Buzzard	1	improved agricultural grassland and linear woodland/scrub; flying, calling, perched	ZE
BZ134	Hen Harrier Roost Survey; HHVP7	06/02/2025	17:08	Buzzard	1	improved agricultural grassland and linear woodland/scrub; flying, mobbed, chased by crows	ZE
BZ135	Waterbird Distribution and Abundance Survey; Lough Boora	19/02/2025	14:18	Buzzard	1	improved agricultural grassland; flying	ZE
BZ136	Waterbird Distribution and Abundance Survey; Clara Bog	05/03/2025	13:12	Buzzard	4	highly modified/non-native woodland and bogs; circlng, flying, the edge of the 8 km survey radius	ZE
BZ137	Hen Harrier Roost Survey; HHVP2	06/03/2025	17:49	Buzzard	1	bogs; flying, perched	ZE
BZ138	Vantage Point Survey; VP2	12/03/2025	12:26	Buzzard	2	cutover bog; flying, hovering, behind the viewshed and after the end of the survey	ZE
BZ139	Waterbird Distribution and Abundance Survey; Grand Canal - Corcoran's Bridge	19/03/2025	13:54	Buzzard	2	improved agricultural grassland, depositing/lowland rivers and linear woodland/scrub; circling	ZE
BZ140	Vantage Point Survey; VP6	20/03/2025	10:31	Buzzard	1	semi-natural woodland and improved agricultural grassland; calling, heard calling, not seen	CC



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title

Buzzard
Vantage Point Survey Observations

Project Title

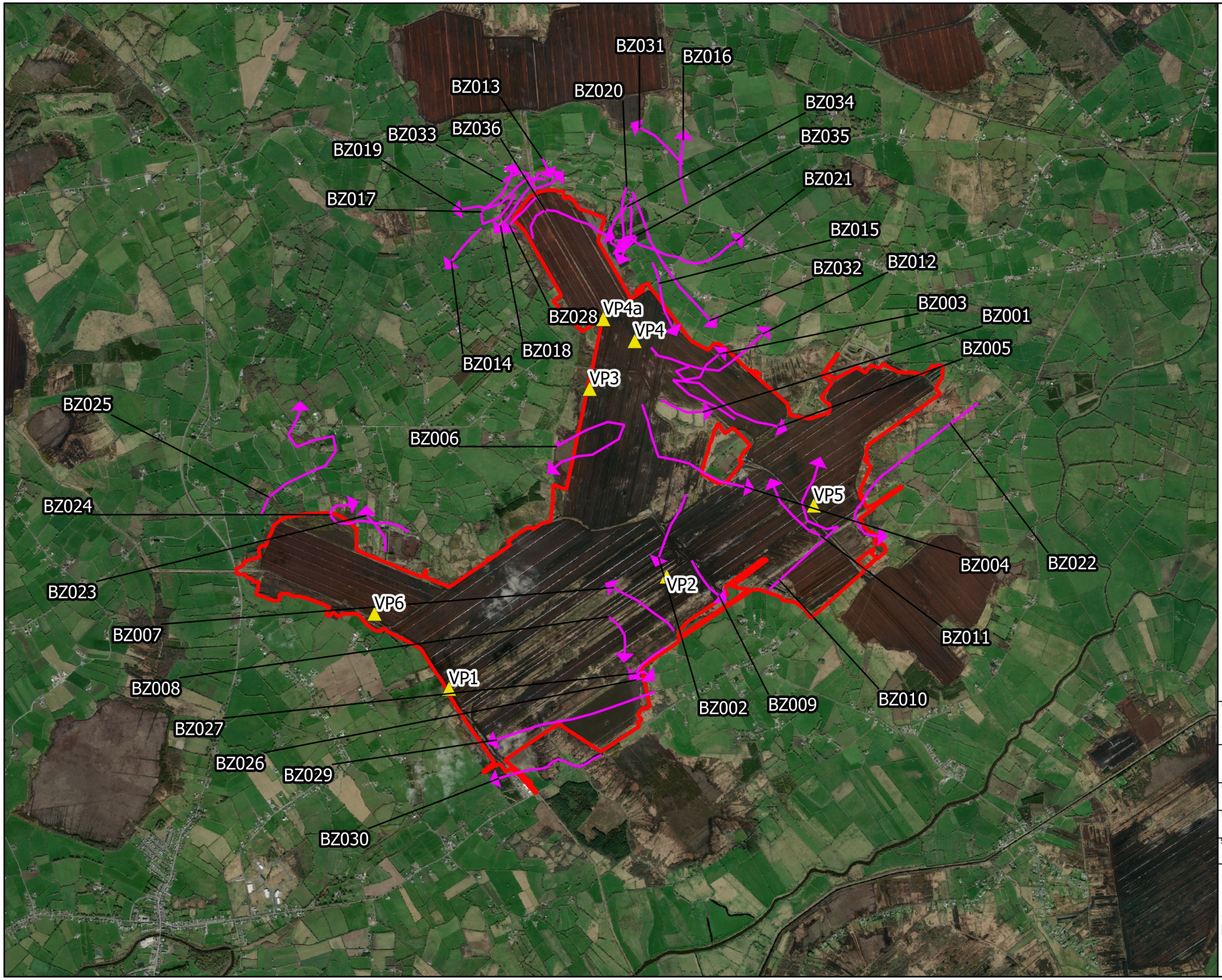
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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Observations of Buzzard from Vantage Point Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 16-1a – Buzzard Vantage Point Survey Data October to December 2020
- Figure 16-1b – Buzzard Vantage Point Survey Data January to March 2021
- Figure 16-1c – Buzzard Vantage Point Survey Data April to May 2021
- Figure 16-1d – Buzzard Vantage Point Survey Data June to July 2021
- Figure 16-1e – Buzzard Vantage Point Survey Data August to September 2021
- Figure 16-1f – Buzzard Vantage Point Survey Data October to December 2021
- Figure 16-1g – Buzzard Vantage Point Survey Data January to March 2022
- Figure 16-1h – Buzzard Vantage Point Survey Data April to May 2022
- Figure 16-1i– Buzzard Vantage Point Survey Data June to July 2022
- Figure 16-1j– Buzzard Vantage Point Survey Data August to September 2022
- Figure 16-1k – Buzzard Vantage Point Survey Data October 2022 to March 2023
- Figure 16-1l – Buzzard Vantage Point Survey Data April to June 2023
- Figure 16-1m – Buzzard Vantage Point Survey Data July to September 2023
- Figure 16-1n – Buzzard Vantage Point Survey Data October 2023 to March 2024
- Figure 16-1o – Buzzard Vantage Point Survey Data April to June 2024
- Figure 16-1p – Buzzard Vantage Point Survey Data July to September 2024
- Figure 16-1q – Buzzard Vantage Point Survey Data October 2024 to March 2025



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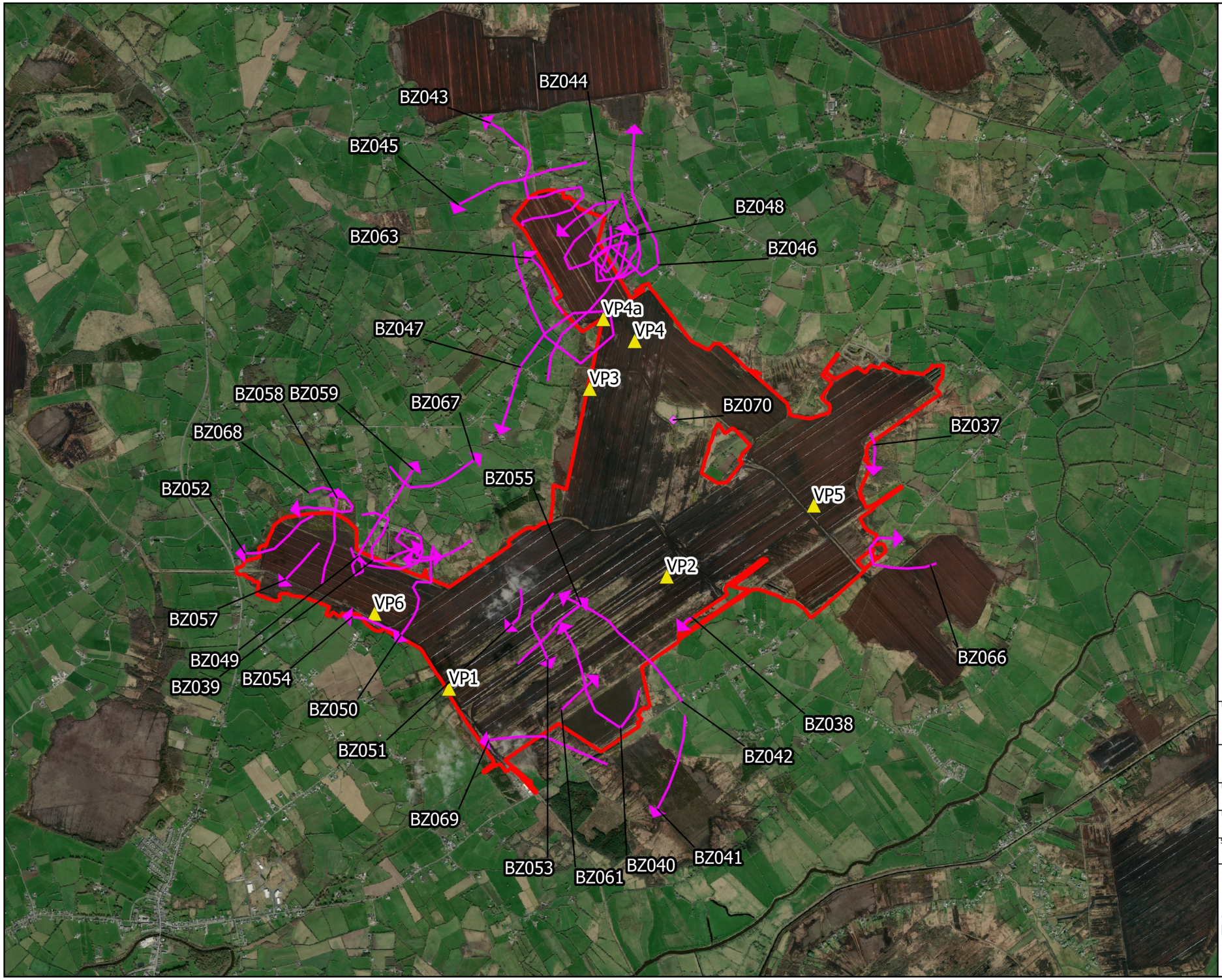
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- Flight Observation

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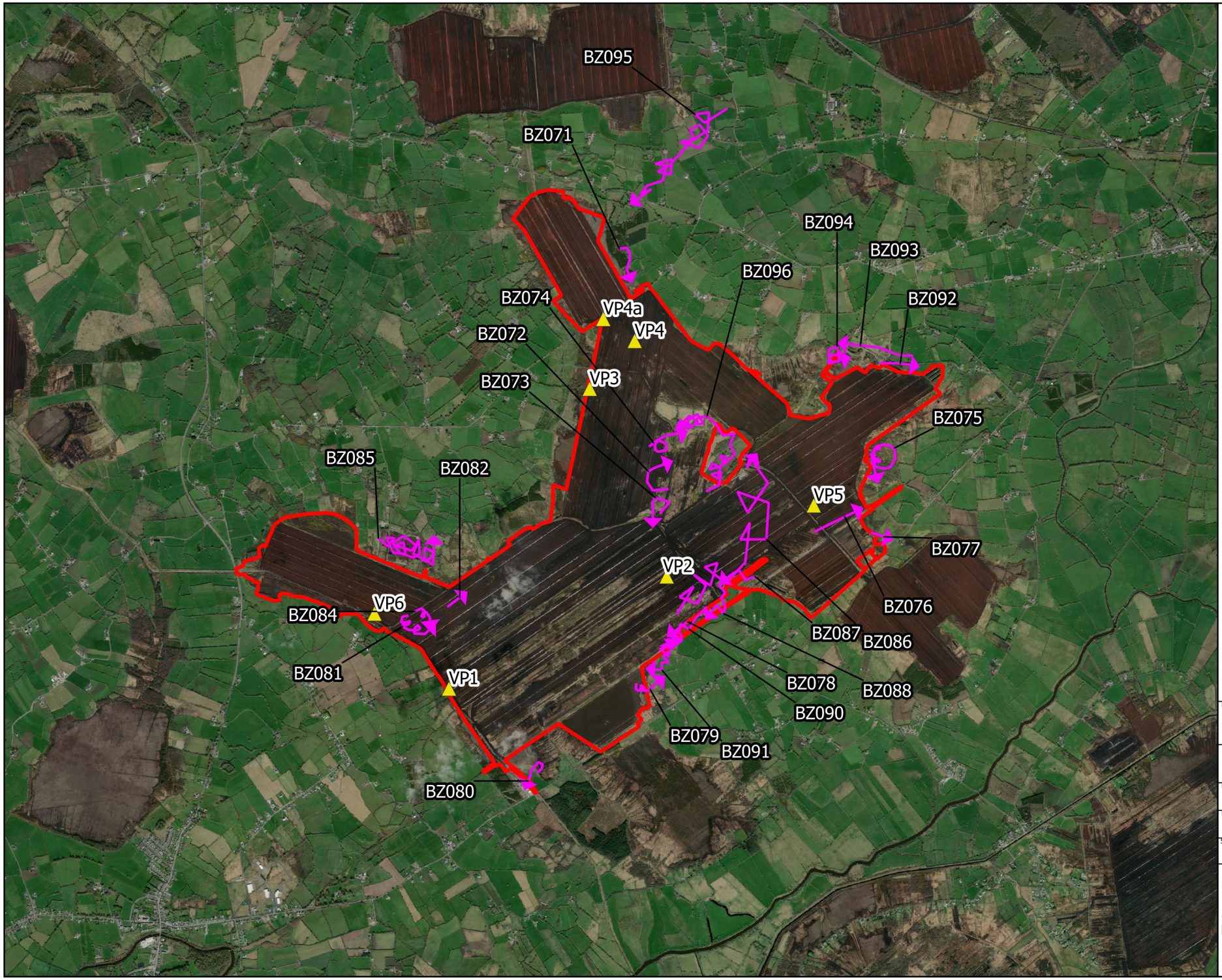
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- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 16.1b
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- Flight Observation

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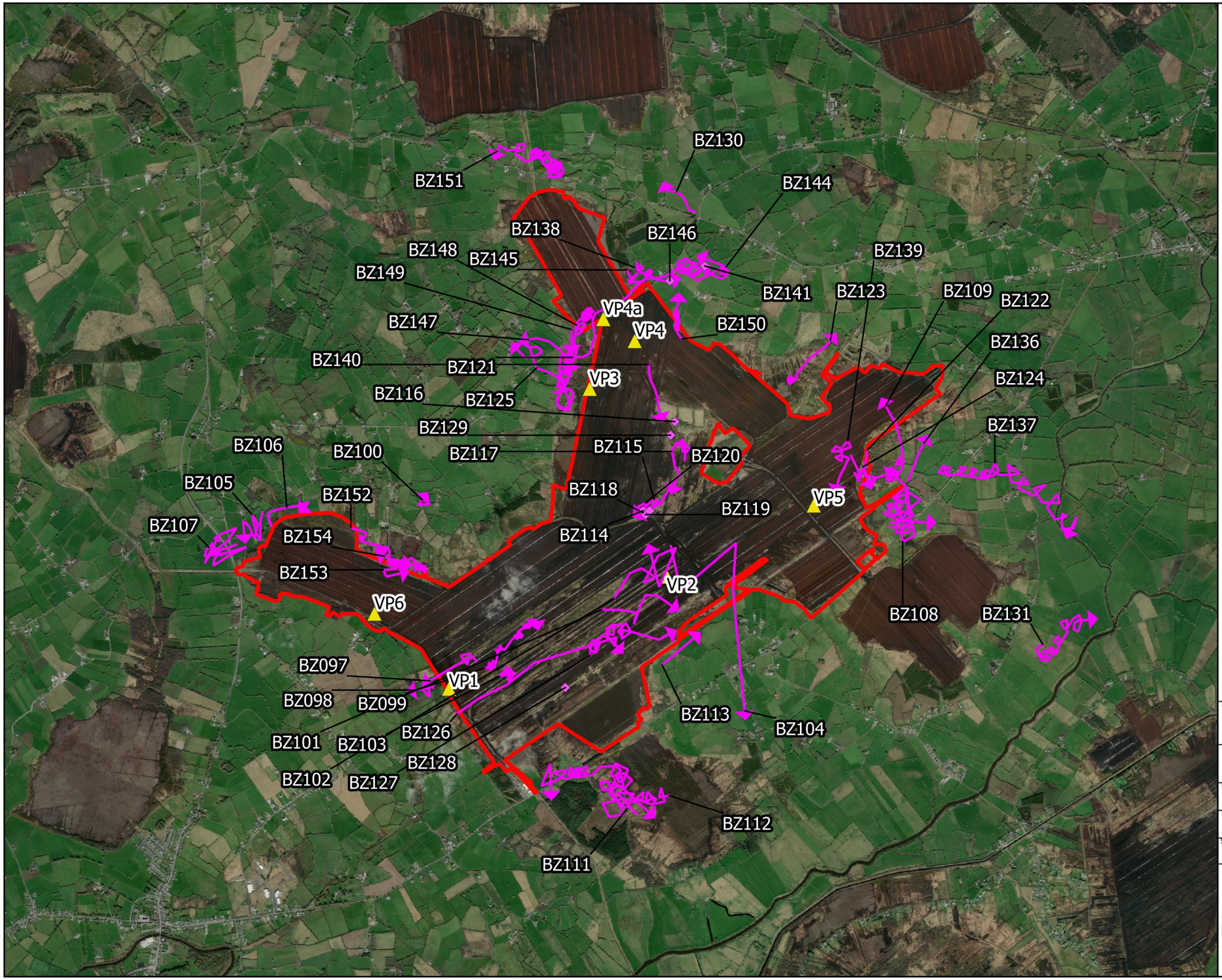
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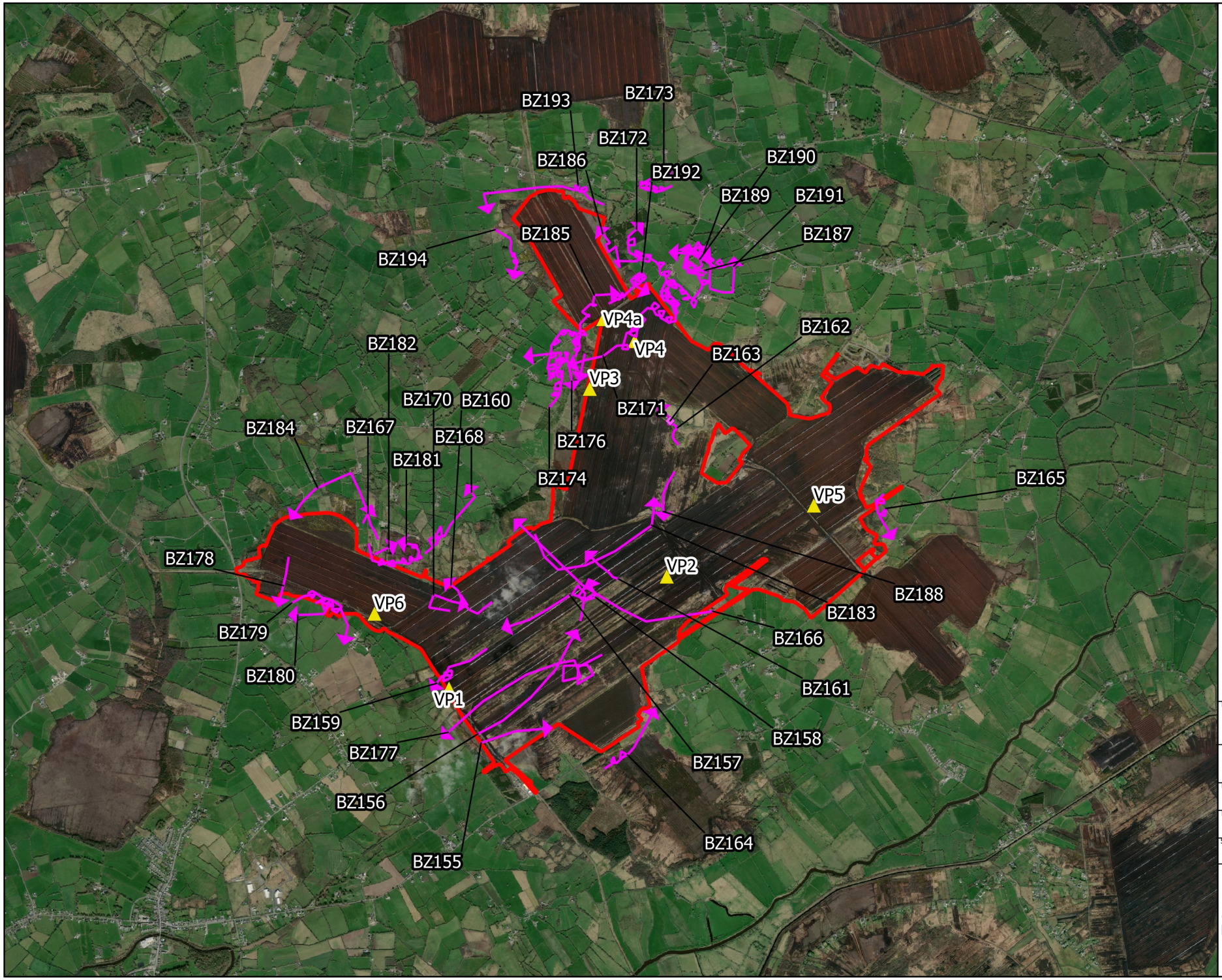
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Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Flight Observation
Non-flight Observation
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Drawing Title
Buzzard Observations Jun-Jul 2021
Vantage Point Surveys
Project Title
Extraction in Lemanaghan Bog, Co. Offaly
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Project No.
200804-e
Drawing No.
Fig. 16.1d
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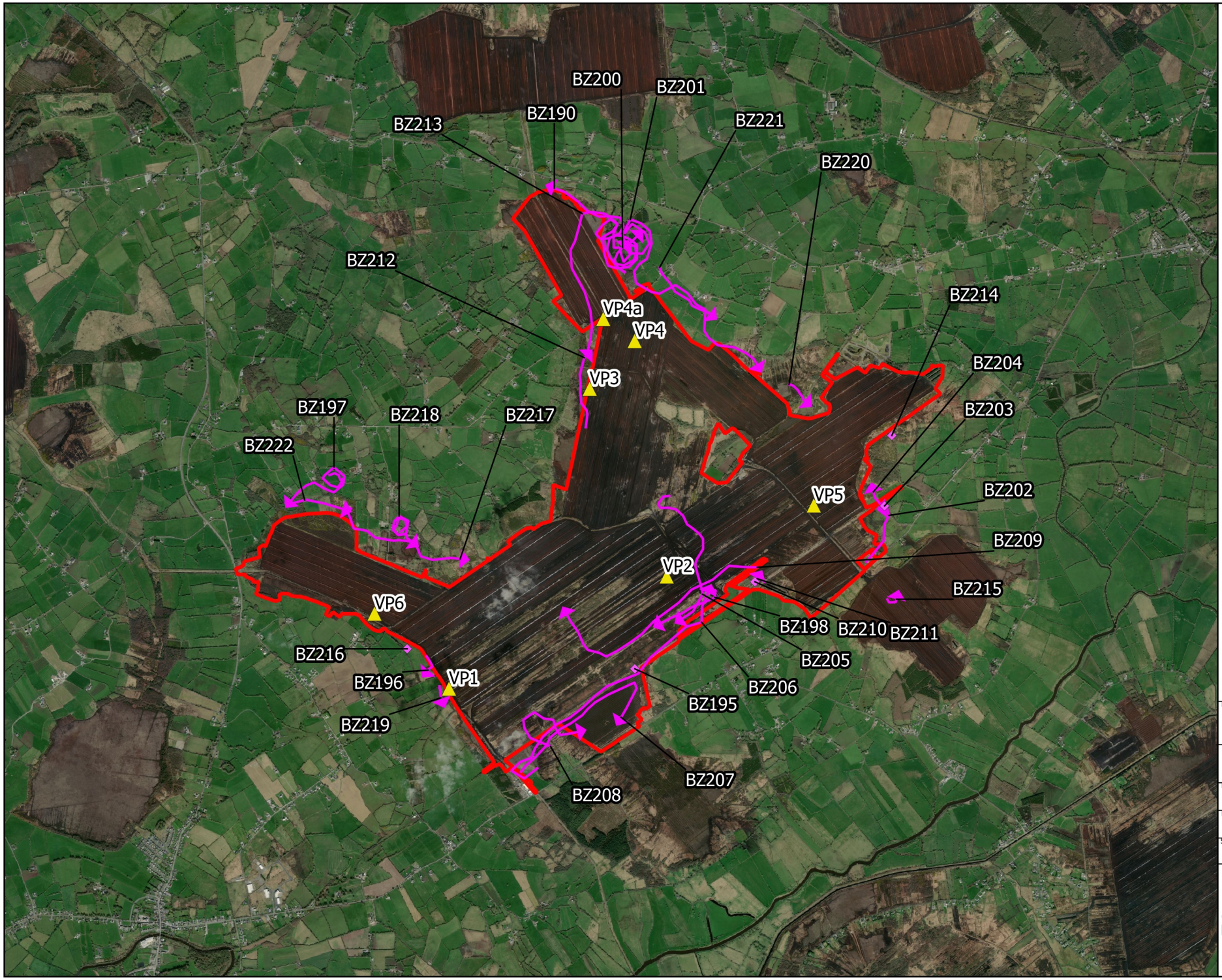
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- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title	Buzzard Observations Aug-Sep 2021 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 16.1e
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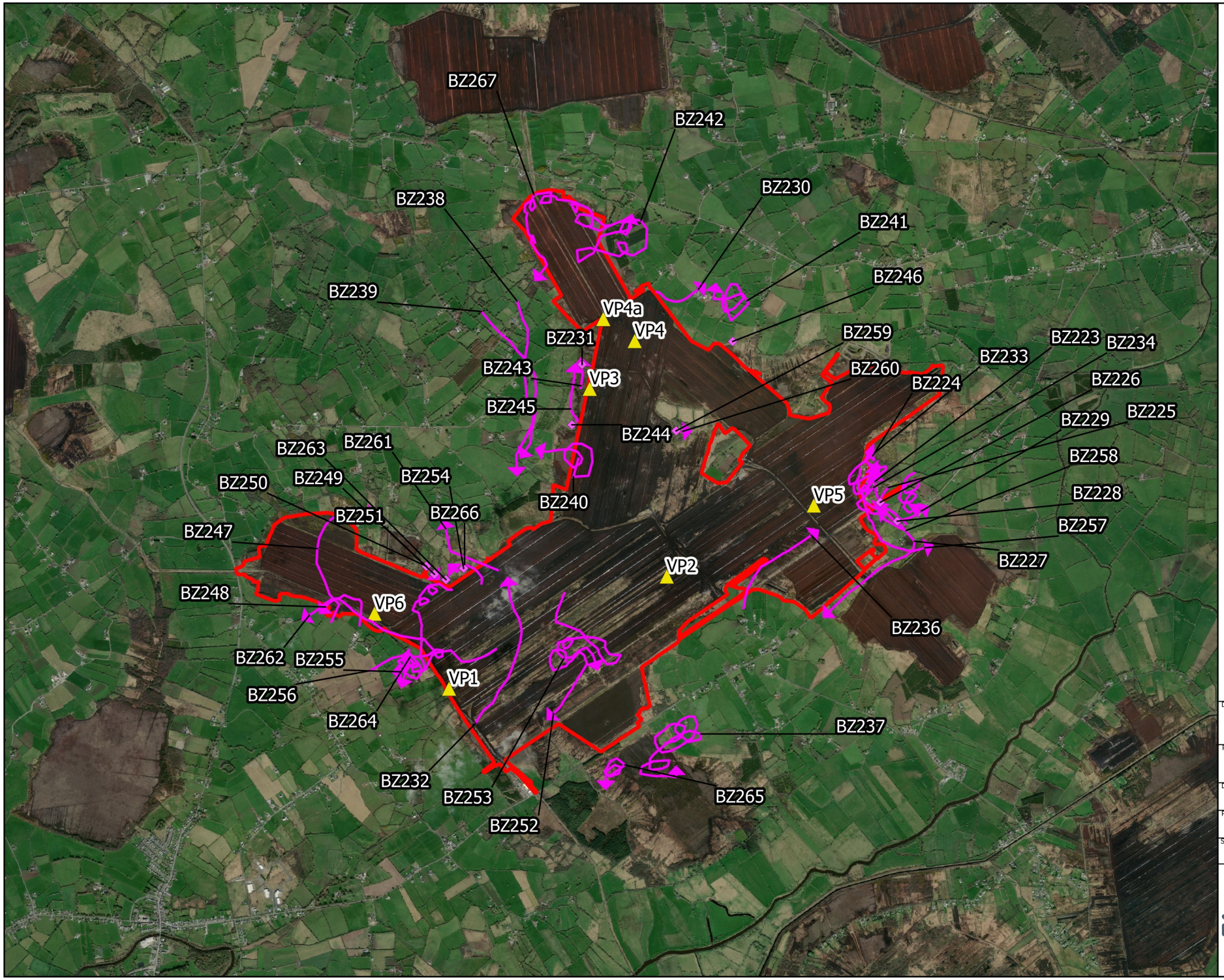
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Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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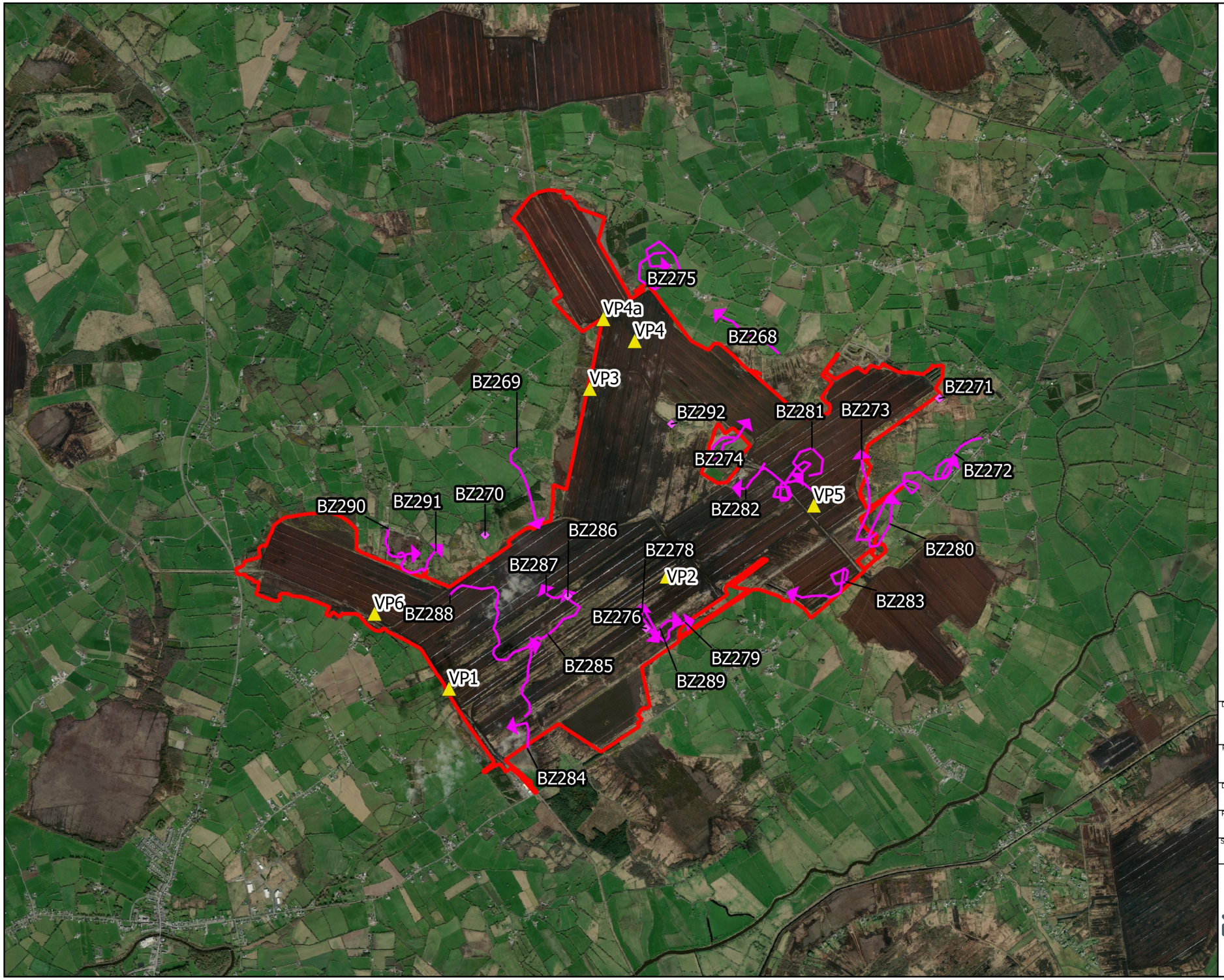


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Buzzard Observations Jan-Mar 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 16.1g
Scale	Date
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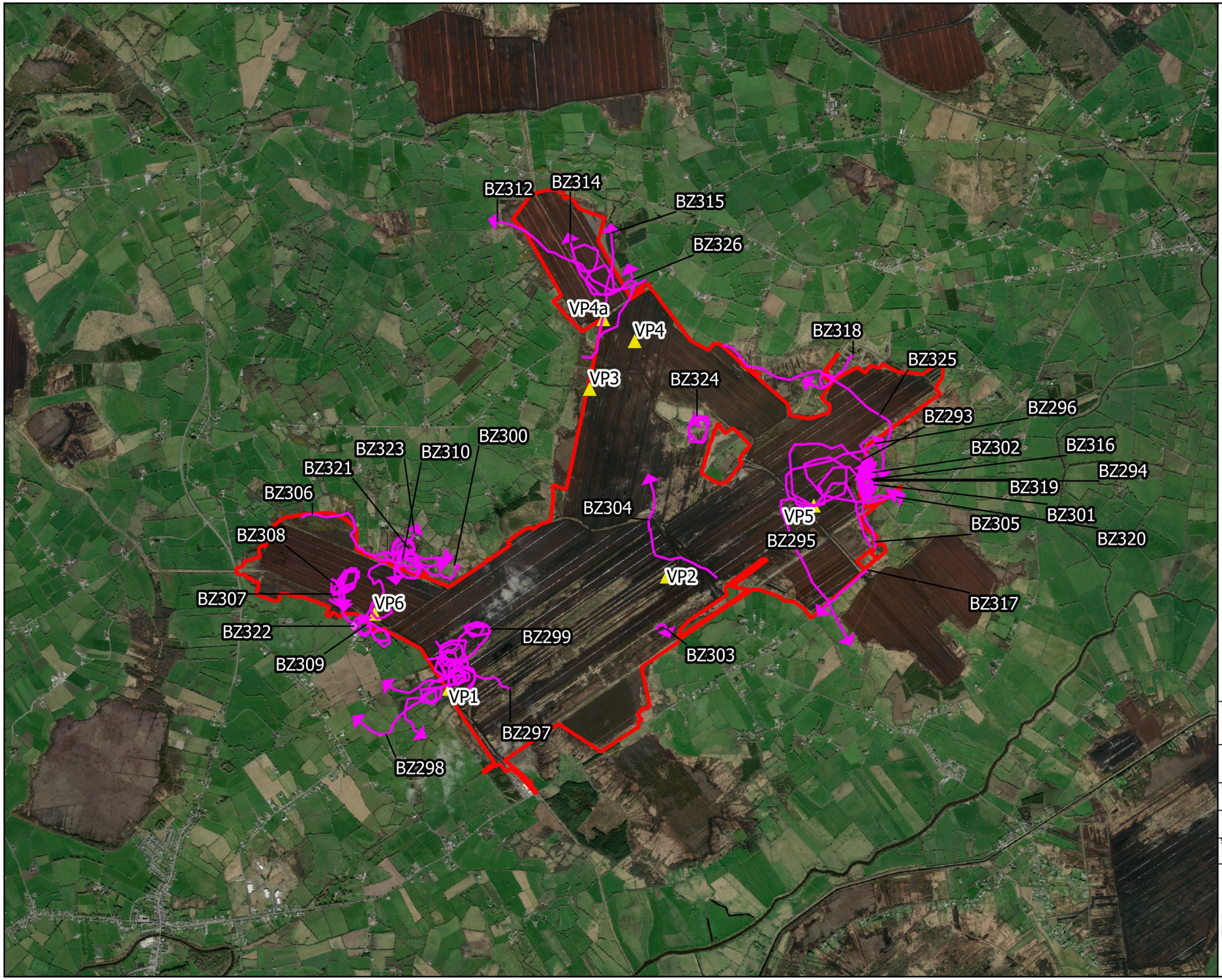
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- Vantage Point Locations
- Flight Observation
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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 16.1h
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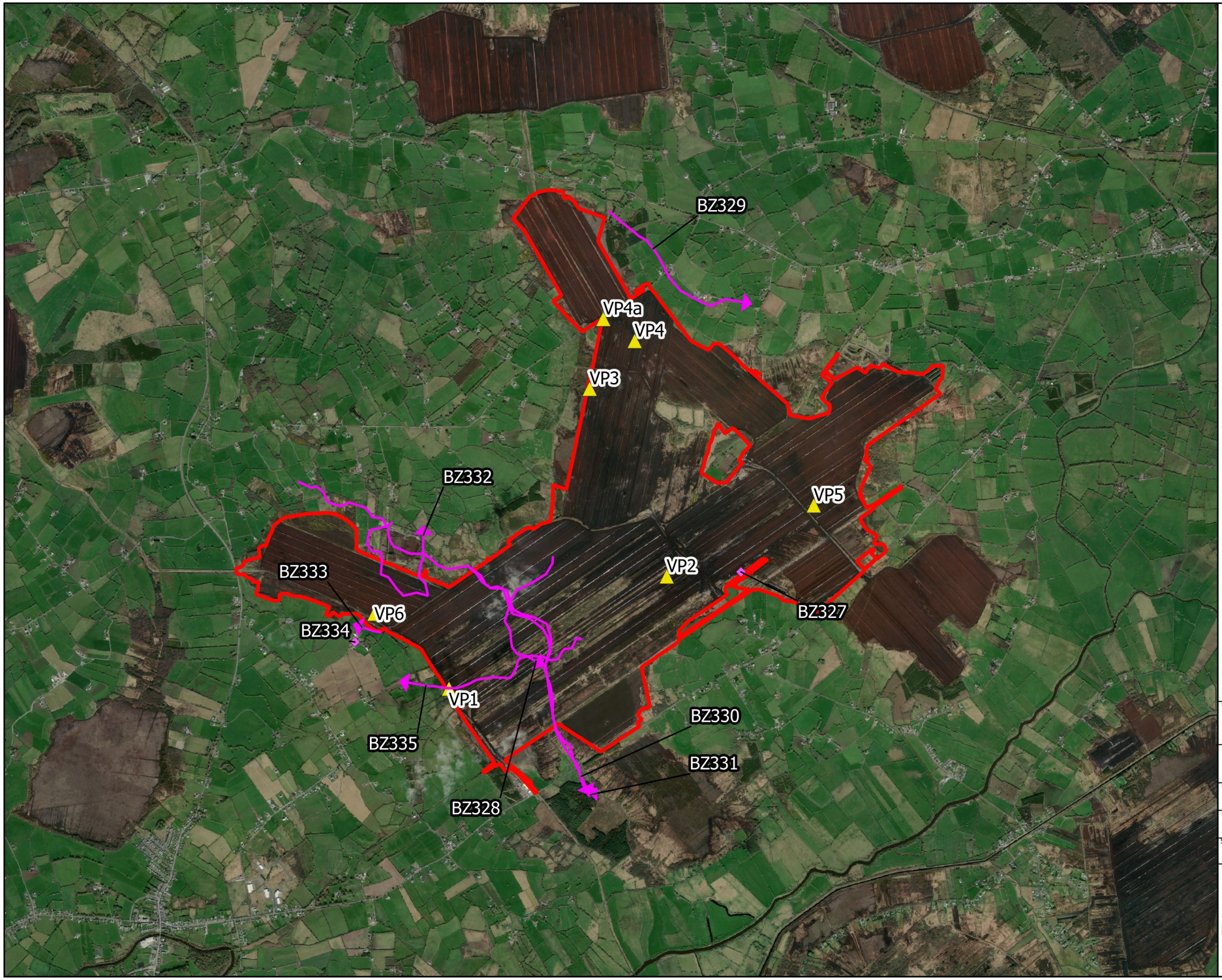
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Drawing Title
Buzzard Observations Jun-Jul 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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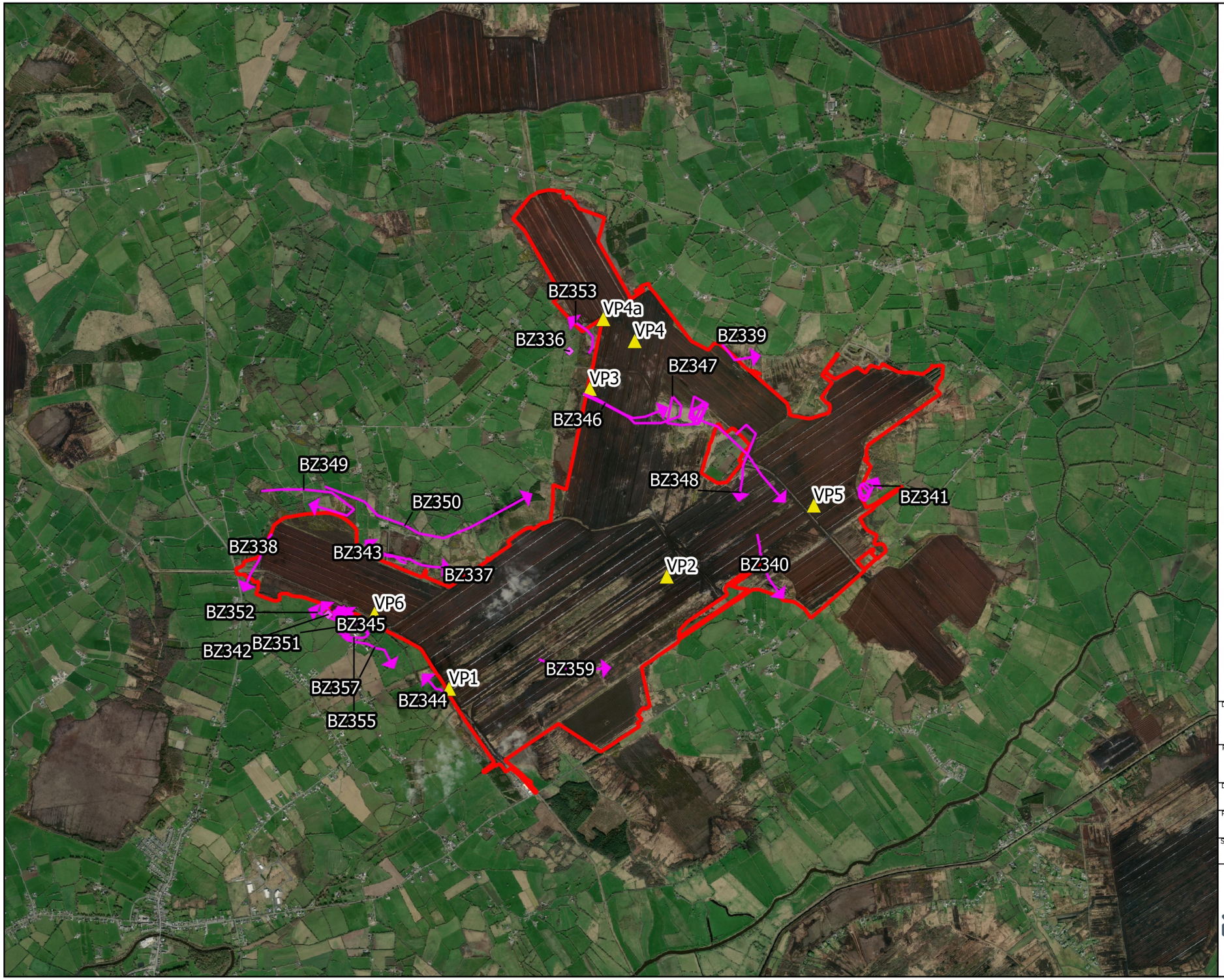
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Drawing Title
Buzzard Observations Aug-Sep 2022
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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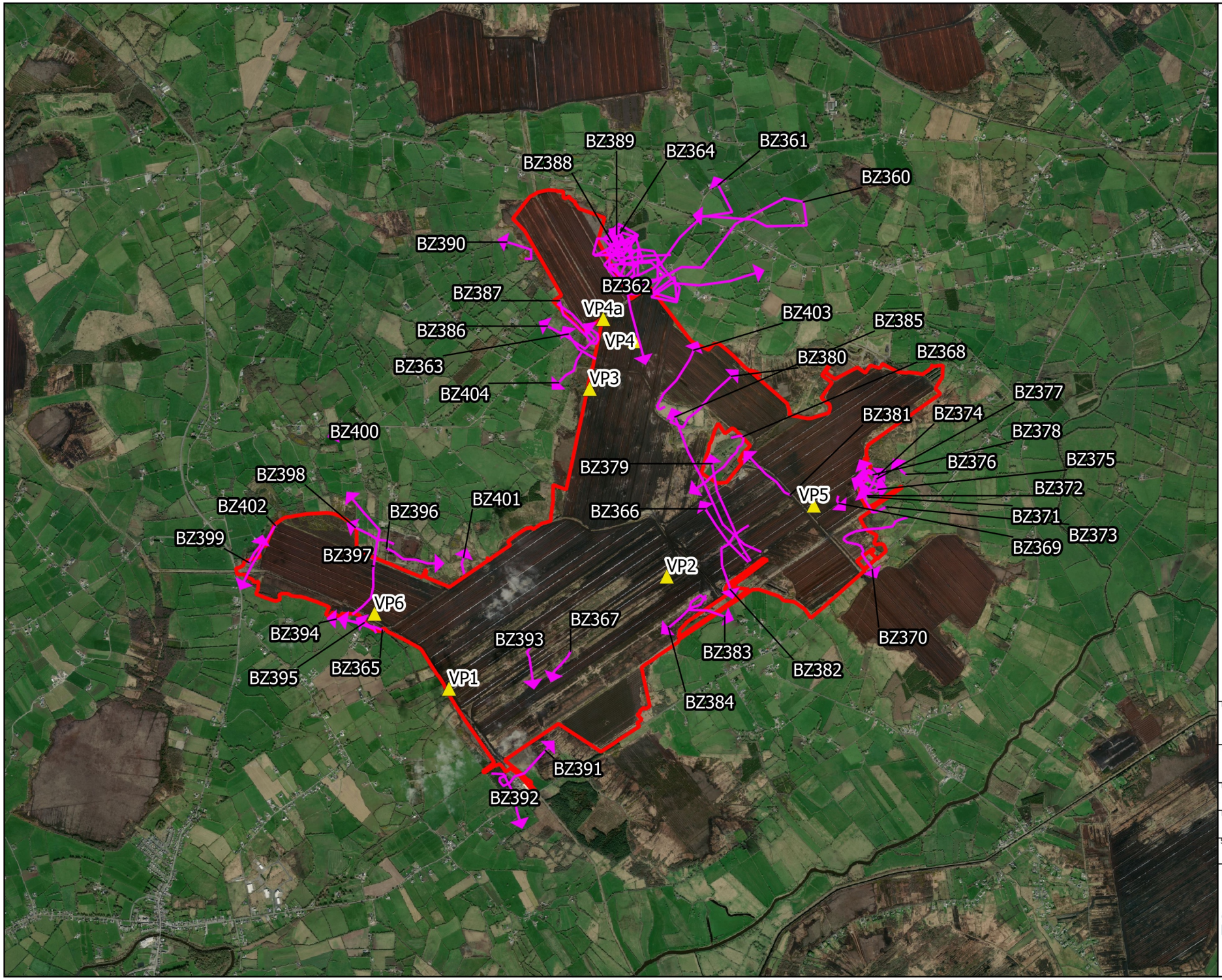
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- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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Project No.: 200804-e	Drawing No.: Fig. 16.1k
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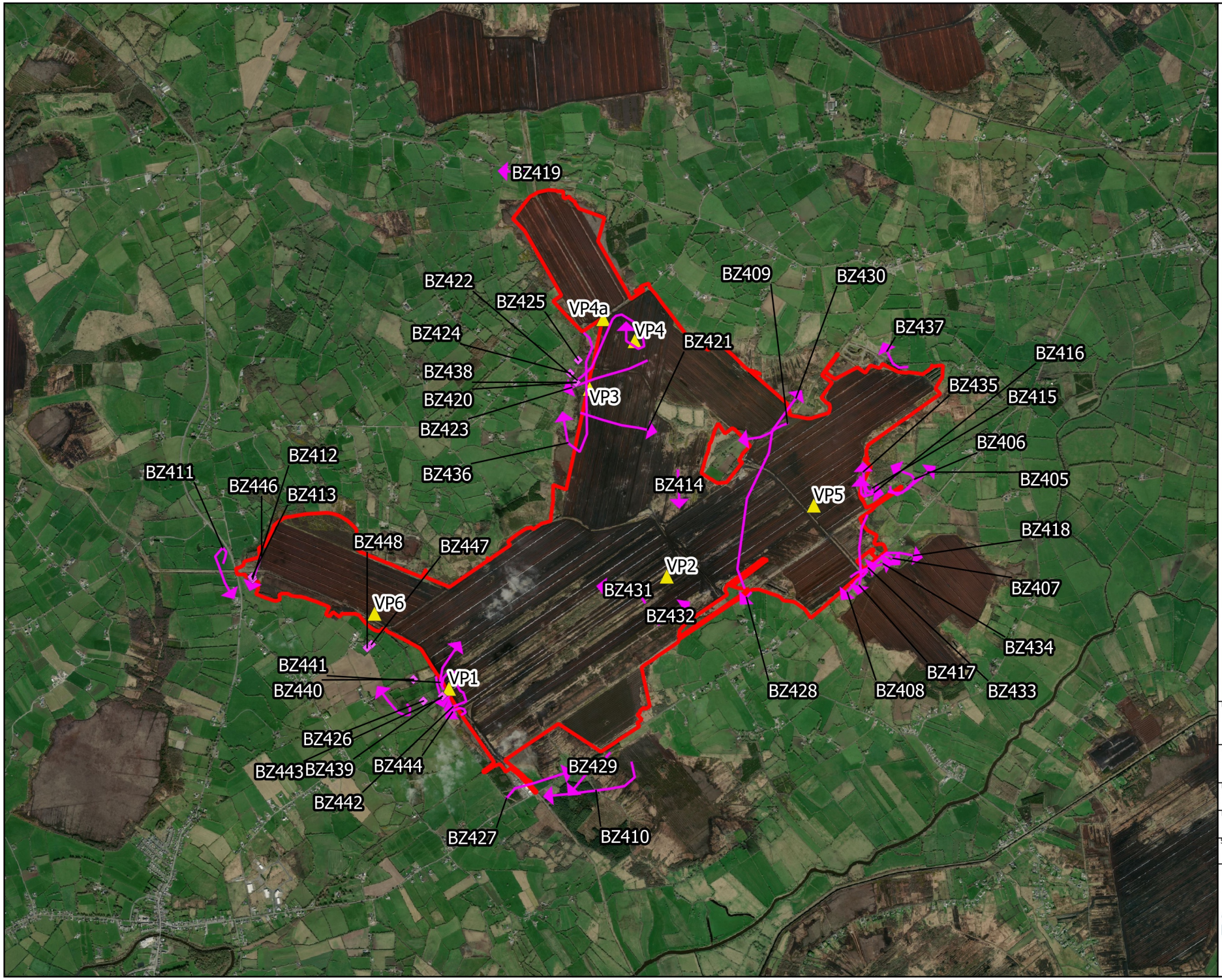


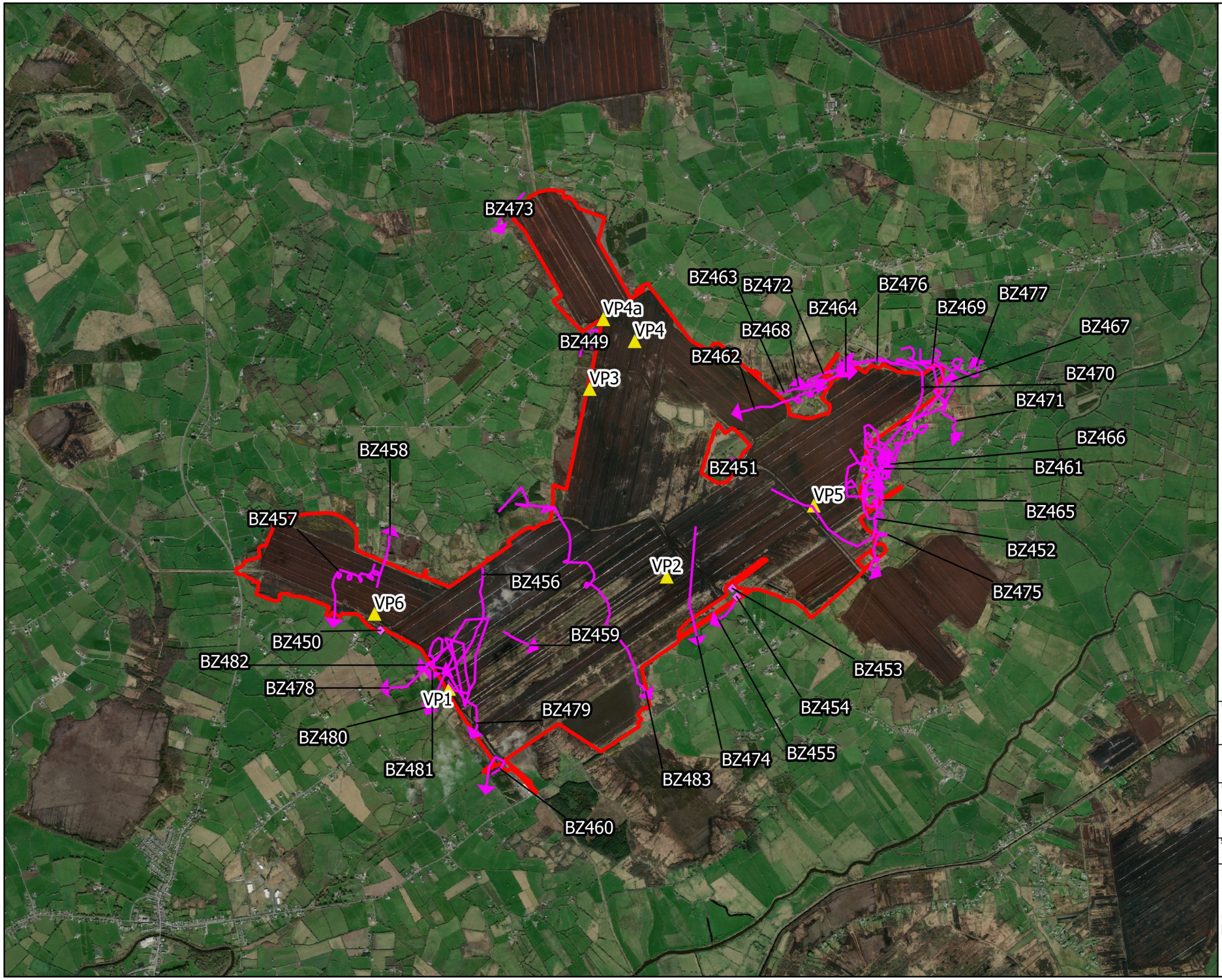
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Buzzard Observations Apr-Jun 2023
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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Flight Observation
Non-flight Observation
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Buzzard Observations Jul-Sep 2023
Vantage Point Surveys
Project Title
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Scale
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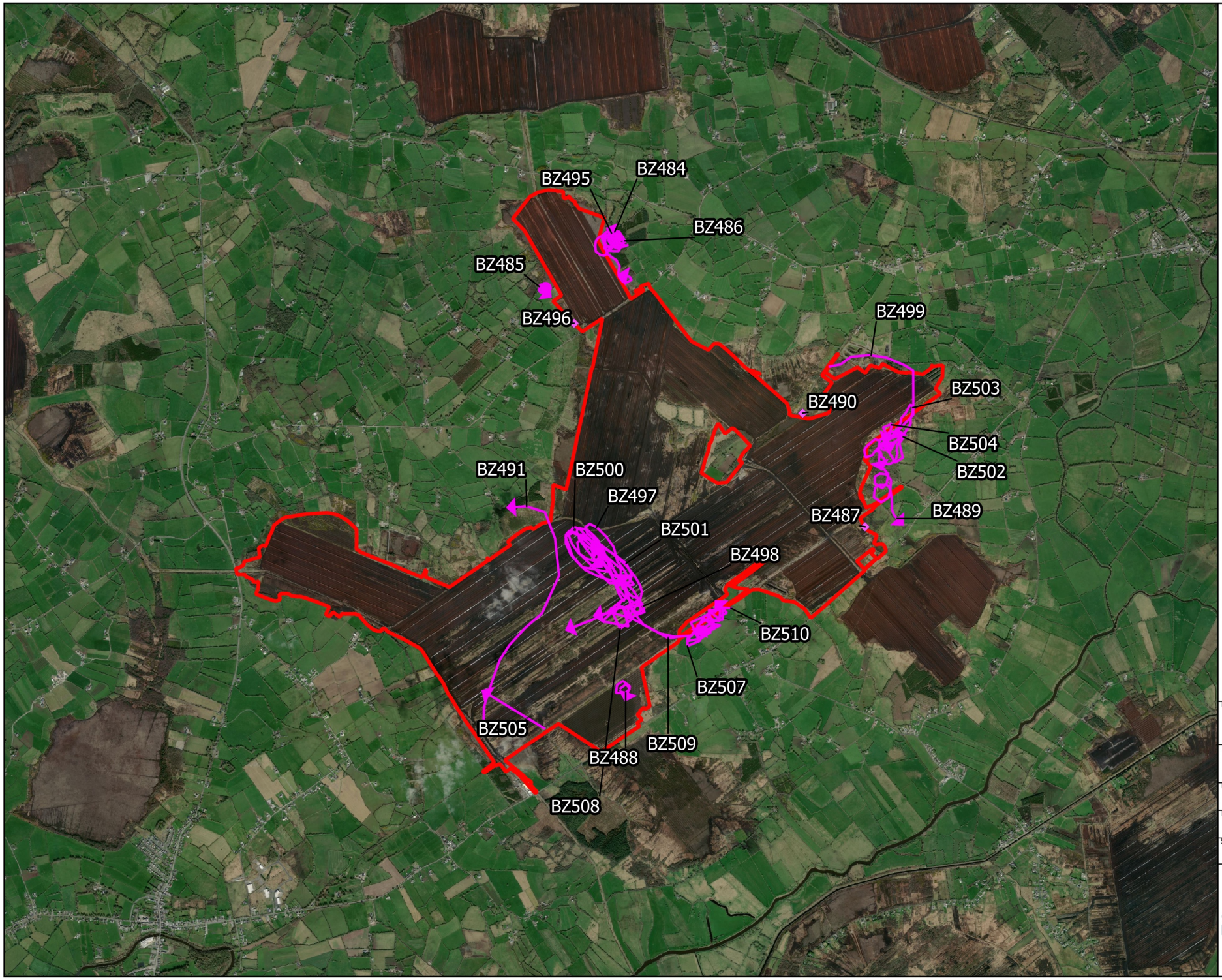
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Drawing Title
Buzzard Observations Winter 2023/24
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
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Scale	Date
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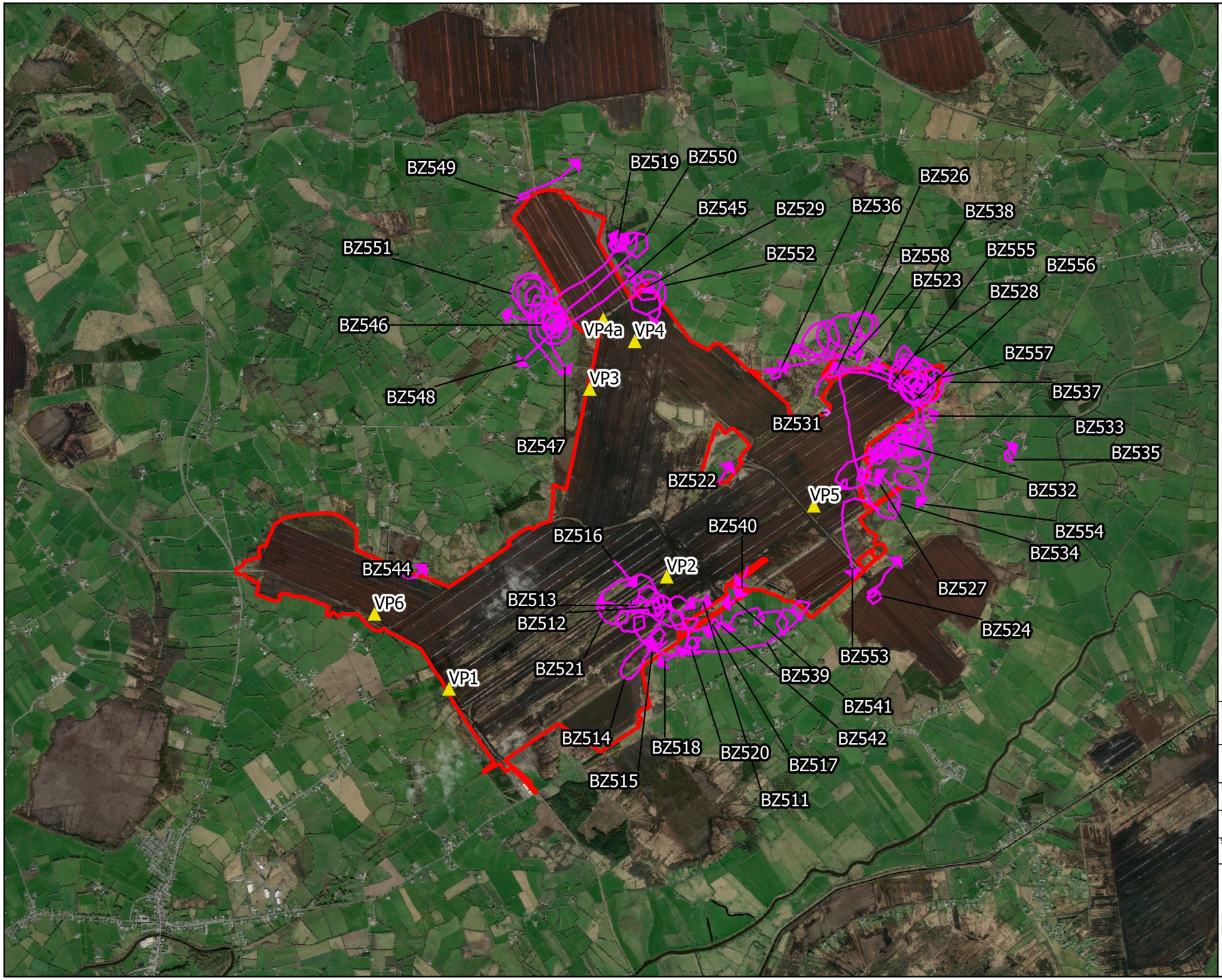
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Drawing Title	Buzzard Observations Apr-Jun 2024 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
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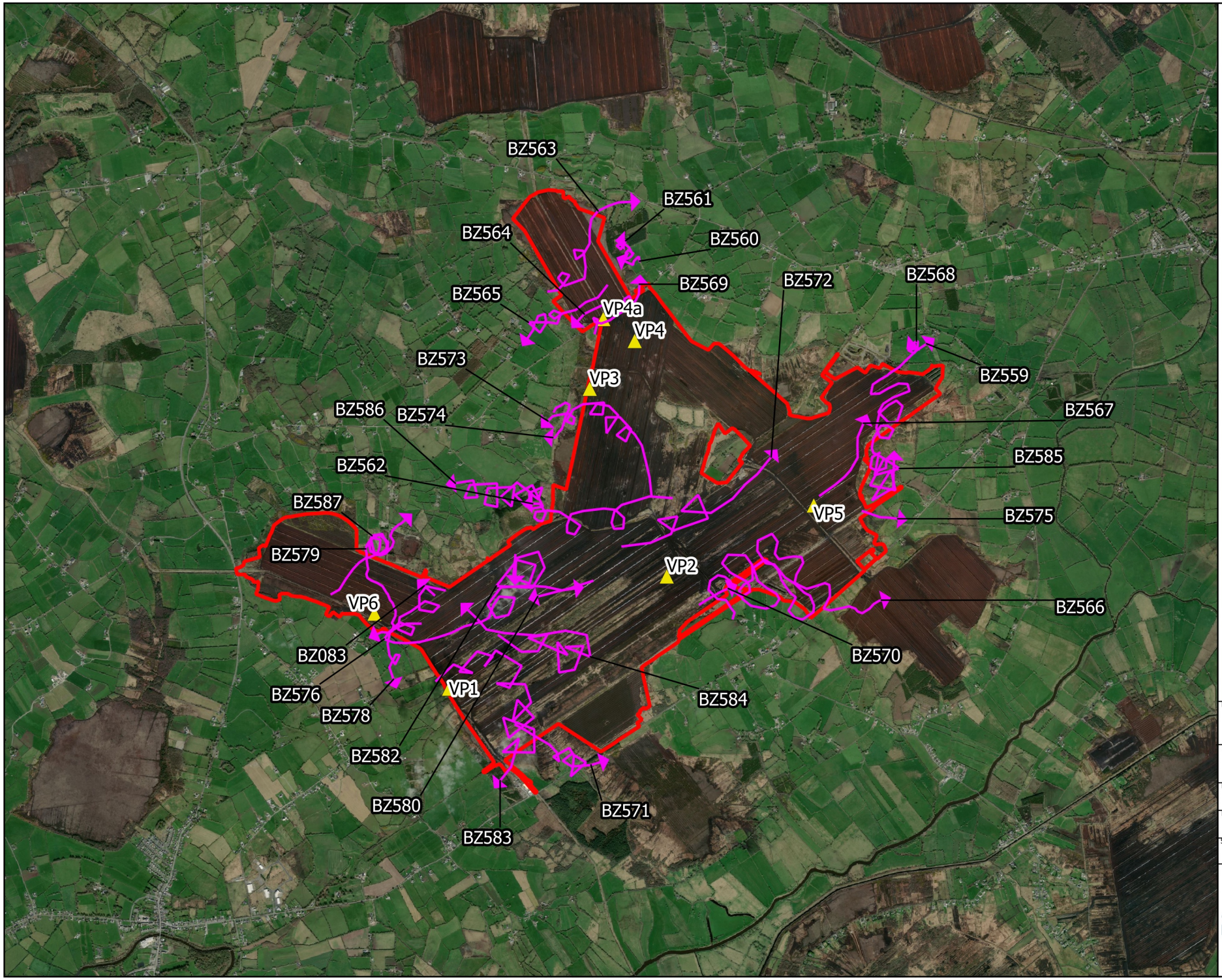
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Drawing Title
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Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Project No.	Drawing No.
200804-e	Fig. 16.1p
Scale	Date
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- Vantage Point Locations
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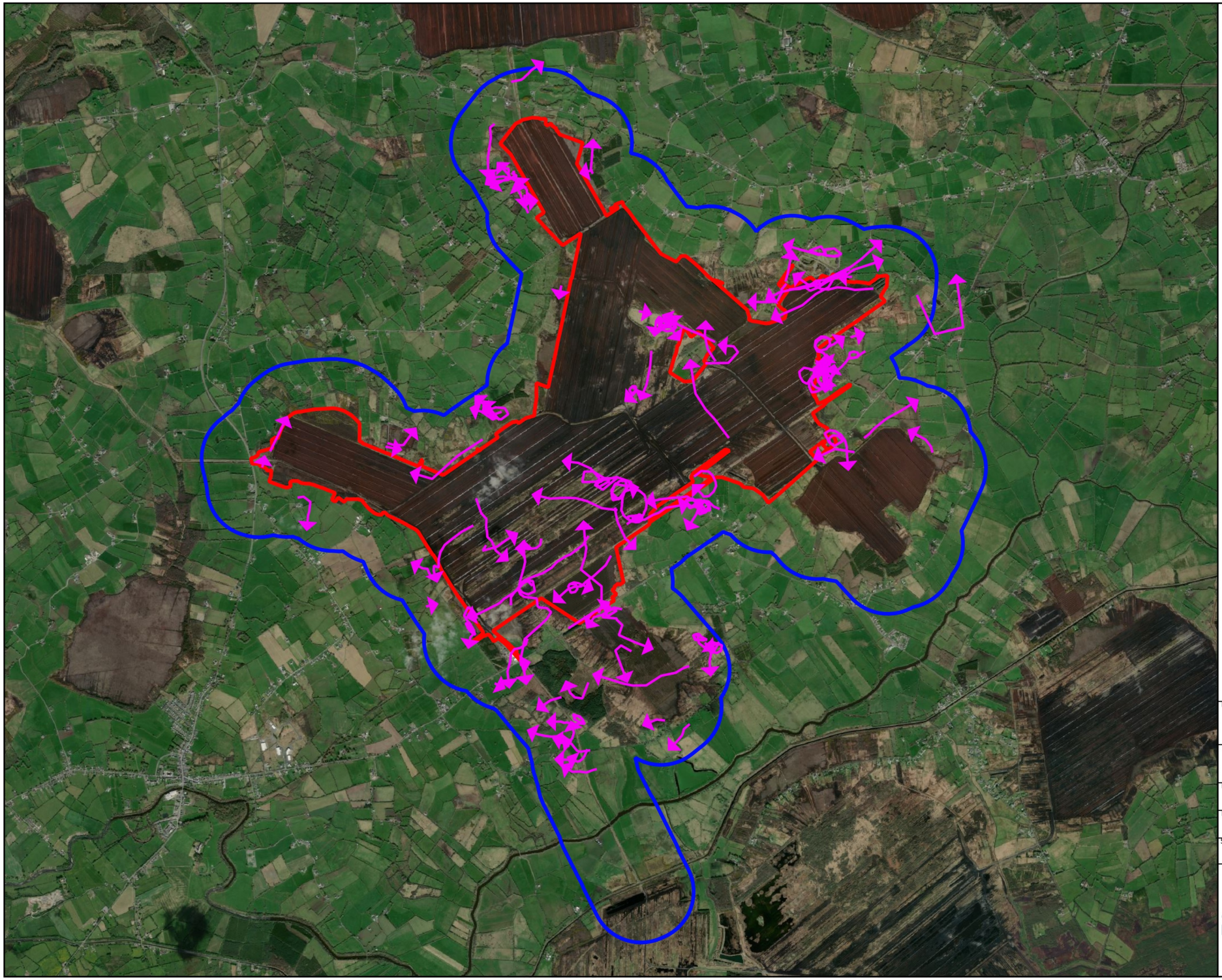
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Drawing Title
Buzzard Observations Winter 2024/25
Vantage Point Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

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Drawing Title

Buzzard Observations
Breeding Walkover Surveys

Project Title

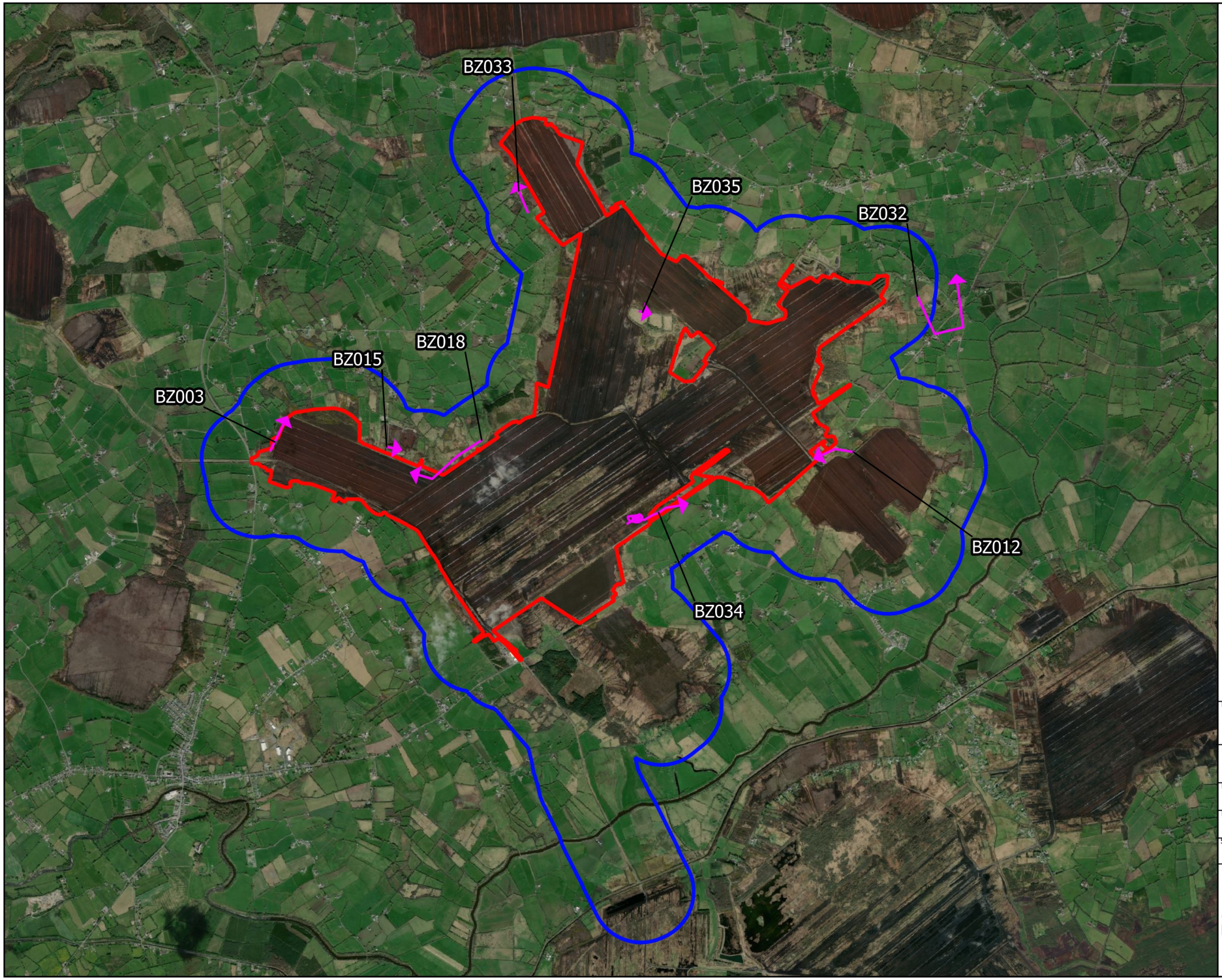
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Observations of Buzzard from Breeding Walkover Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 16-2a – Buzzard Breeding Walkover Survey Data 2021
- Figure 16-2b – Buzzard Breeding Walkover Survey Data 2022
- Figure 16-2c – Buzzard Breeding Walkover Survey Data 2023
- Figure 16-2d – Buzzard Breeding Walkover Survey Data 2024



Map Legend

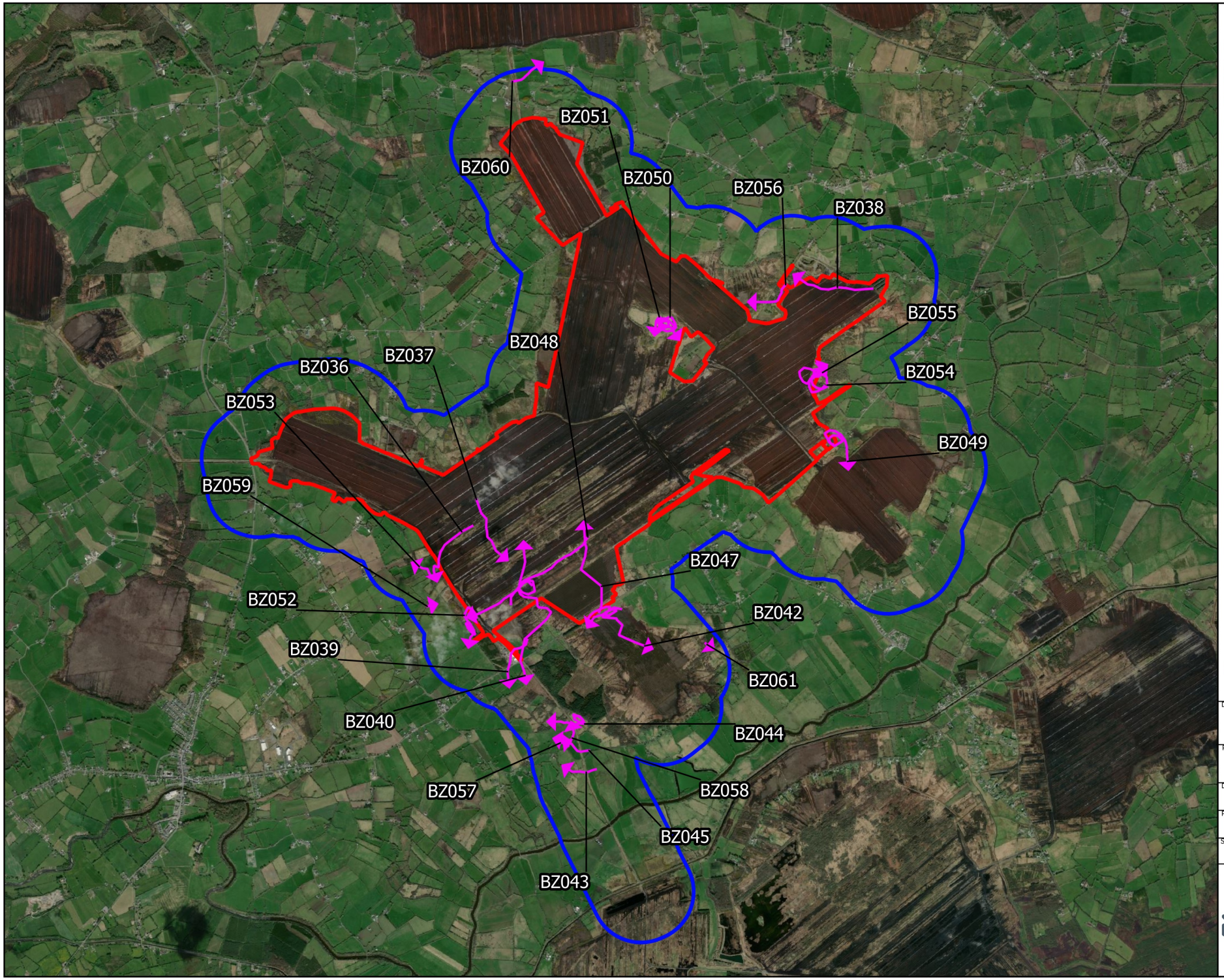
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Buzzard Observations 2021 Breeding Walkover Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 16.2a
Scale: 1:50,000	Date: 17.07.2025

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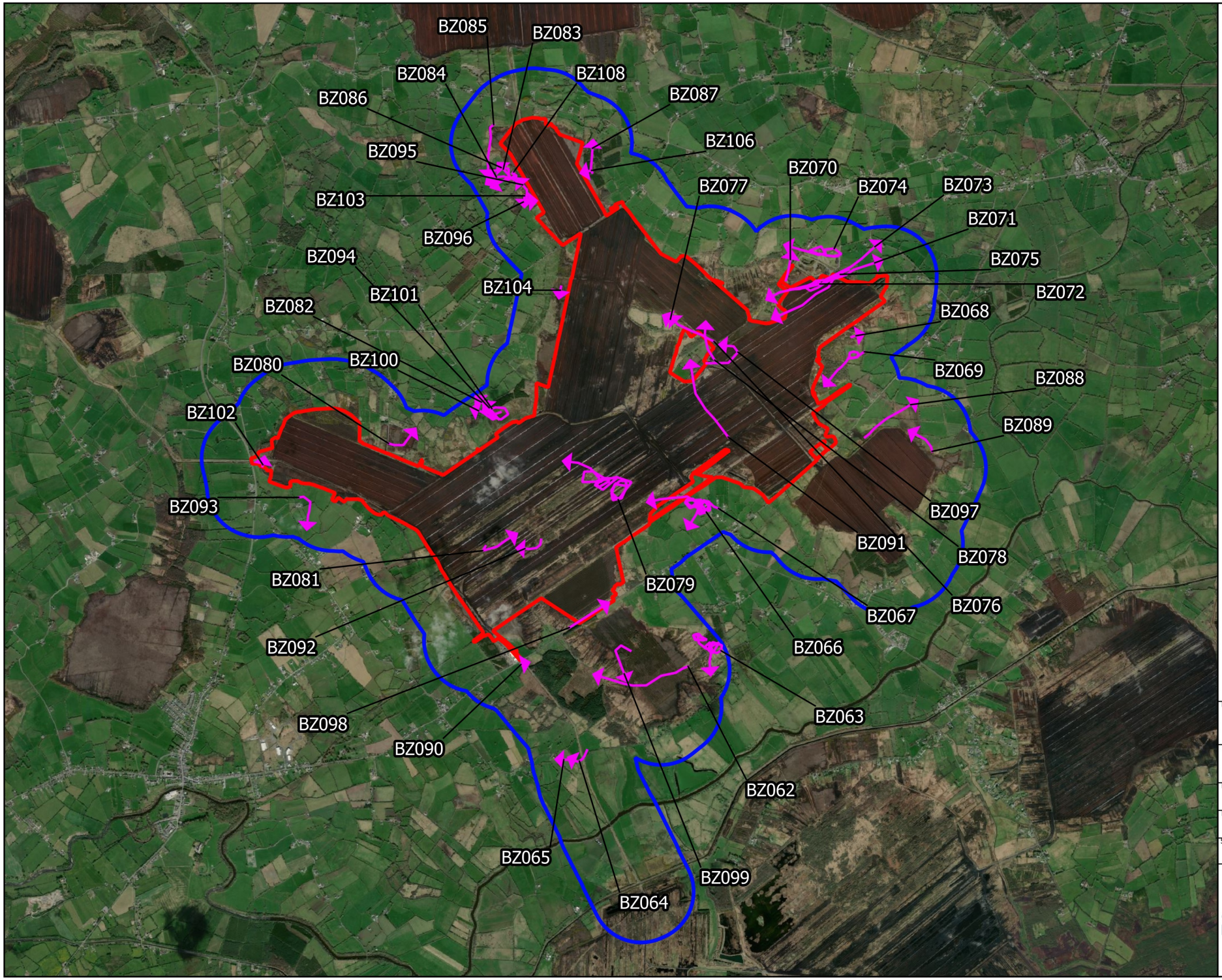
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Drawing Title
Buzzard Observations 2022
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.2b
Scale	Date
1:50,000	17.07.2025

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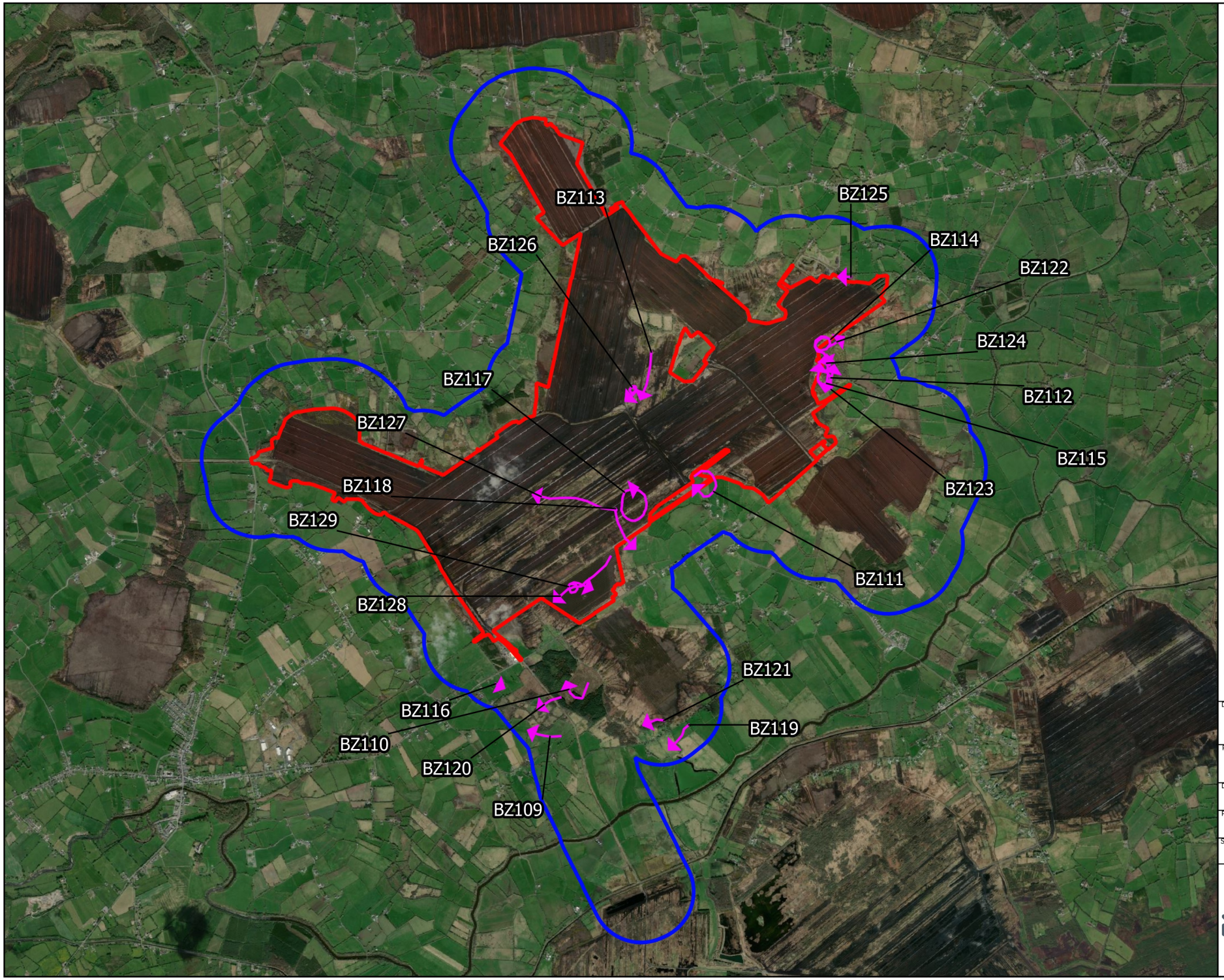
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Drawing Title
Buzzard Observations 2023
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.2c
Scale	Date
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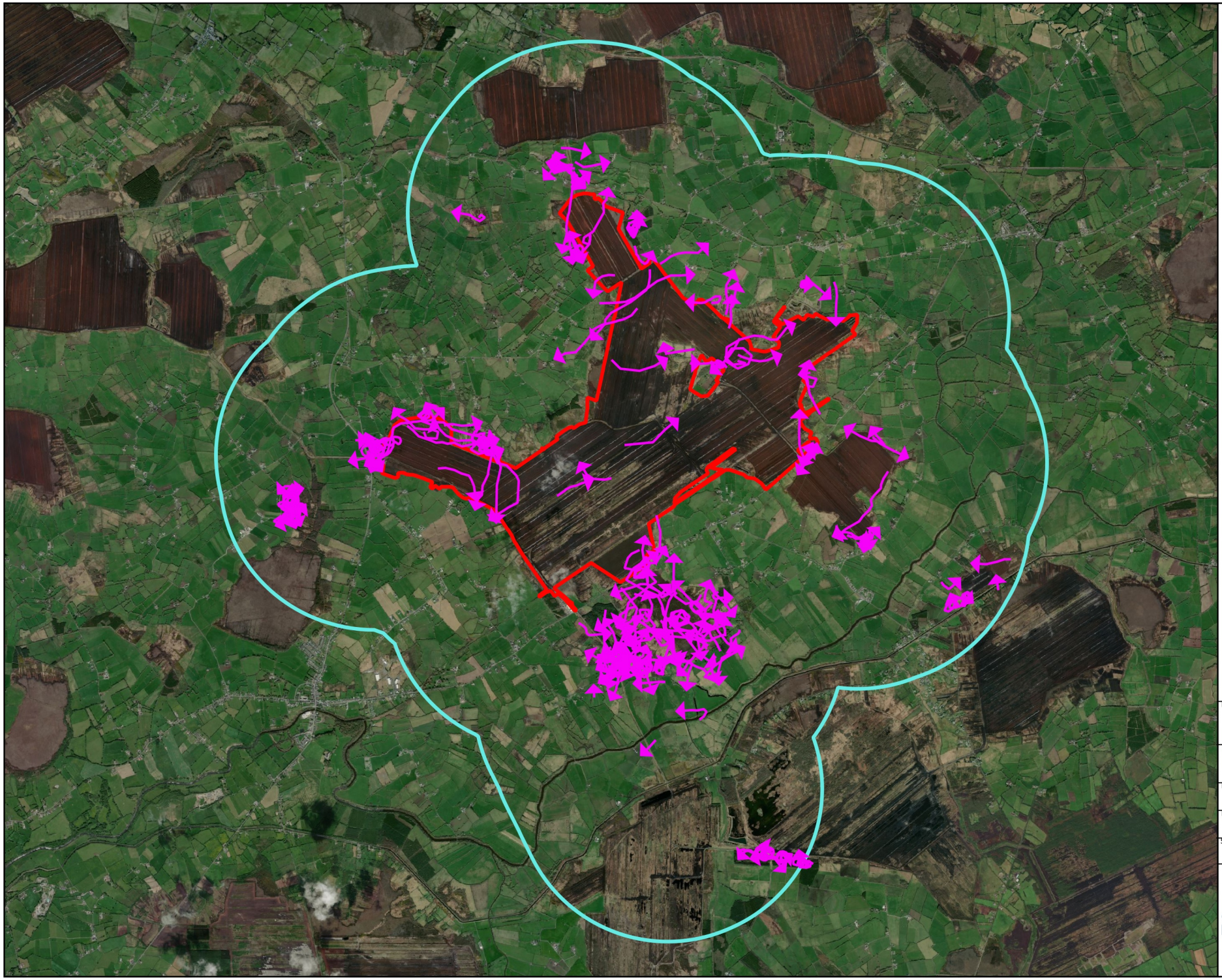
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Drawing Title
Buzzard Observations 2024
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.2d
Scale	Date
1:50,000	17.07.2025

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Drawing Title

Buzzard Observations
Breeding Raptor Surveys

Project Title

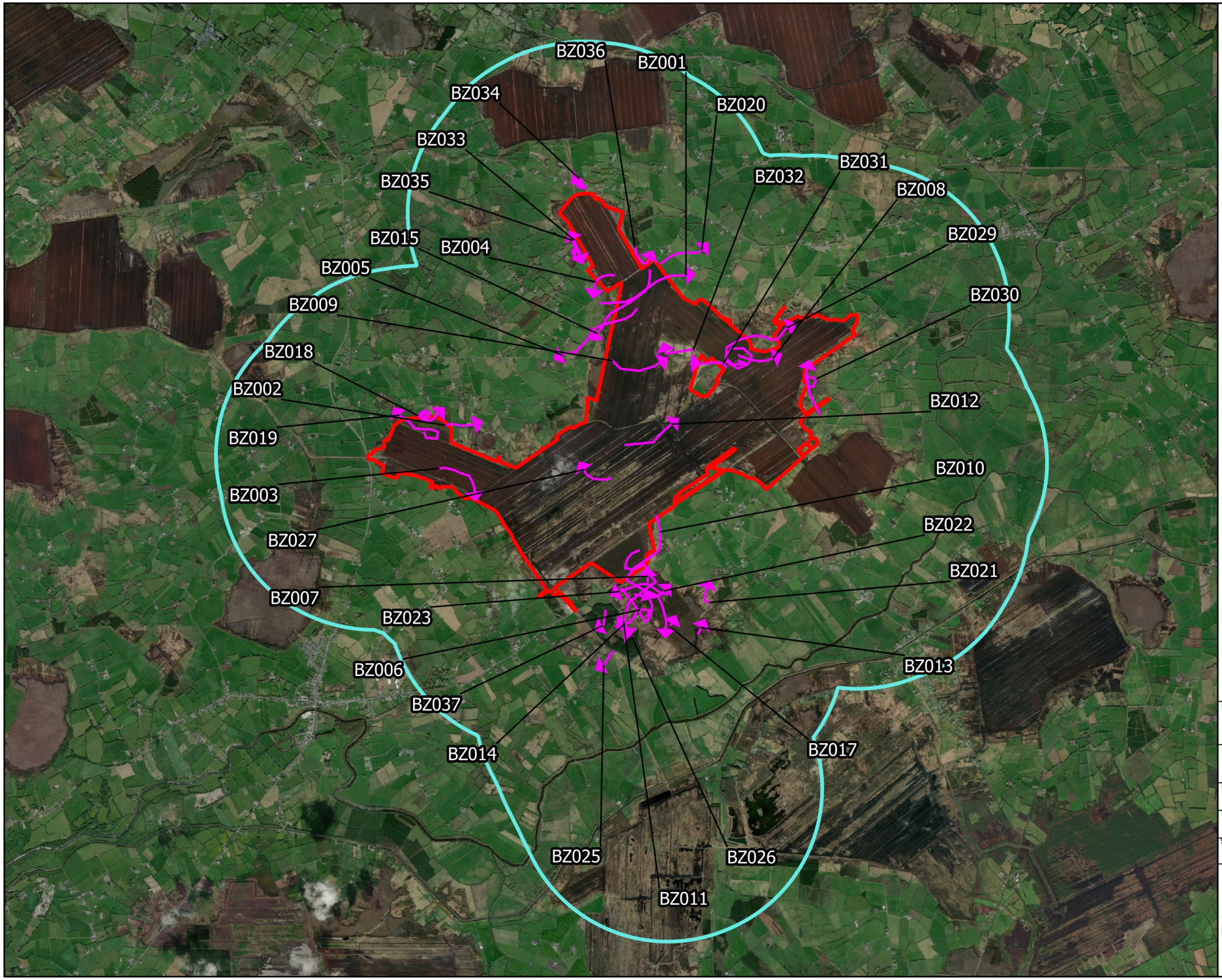
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.3
Scale	Date
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Observations of Buzzard from Breeding Raptor Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 16-3a – Buzzard Breeding Raptor Survey Data 2021
- Figure 16-3b – Buzzard Breeding Raptor Survey Data April to May 2022
- Figure 16-3c – Buzzard Breeding Raptor Survey Data June to July 2022
- Figure 16-3d – Buzzard Breeding Raptor Survey Data April to May 2023
- Figure 16-3e – Buzzard Breeding Raptor Survey Data June to July 2023
- Figure 16-3f – Buzzard Breeding Raptor Survey Data 2024



Map Legend

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- Survey Area
- Flight Observation

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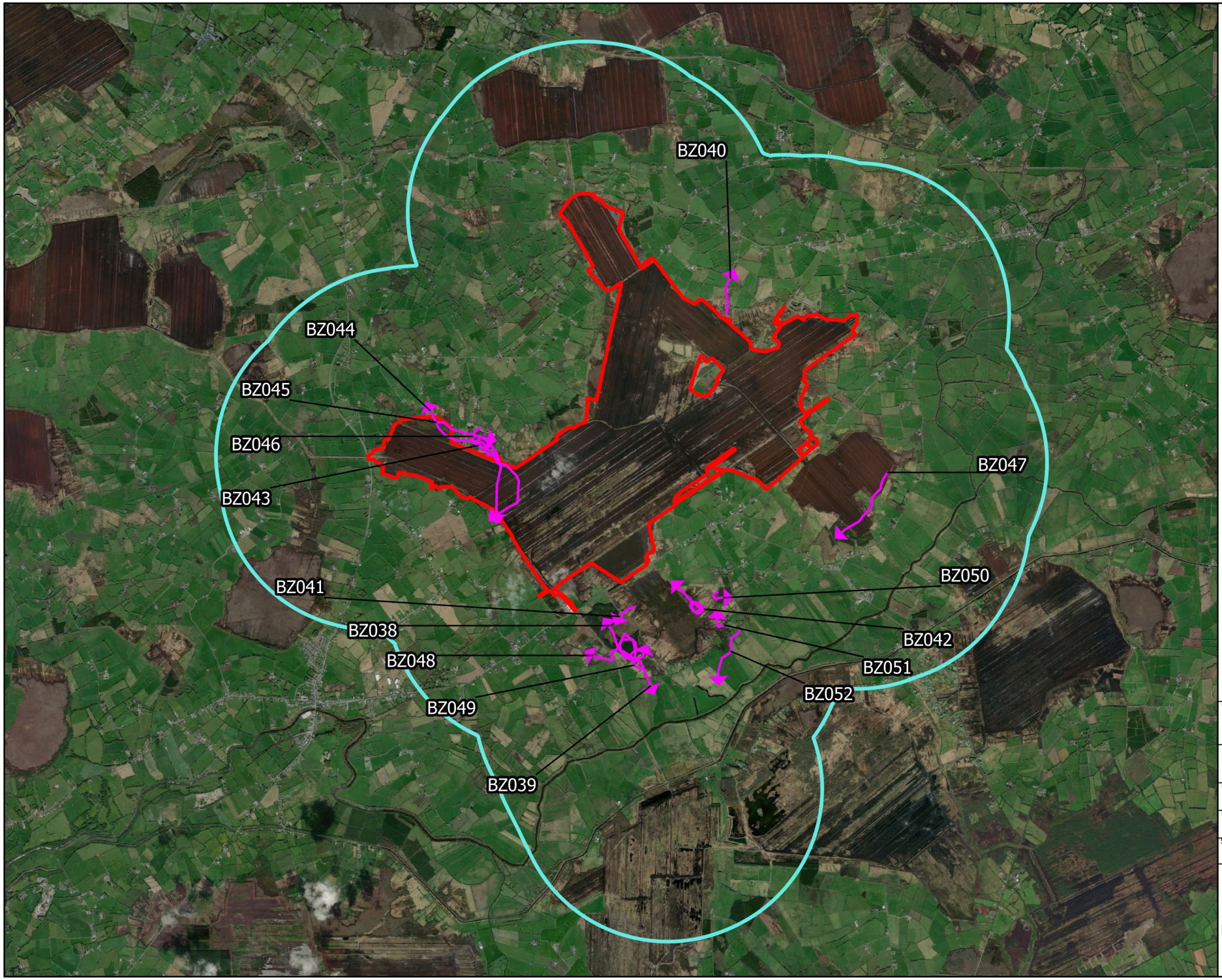
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Drawing Title
Buzzard Observations 2021
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.3a
Scale	Date
1:65,000	17.07.2025

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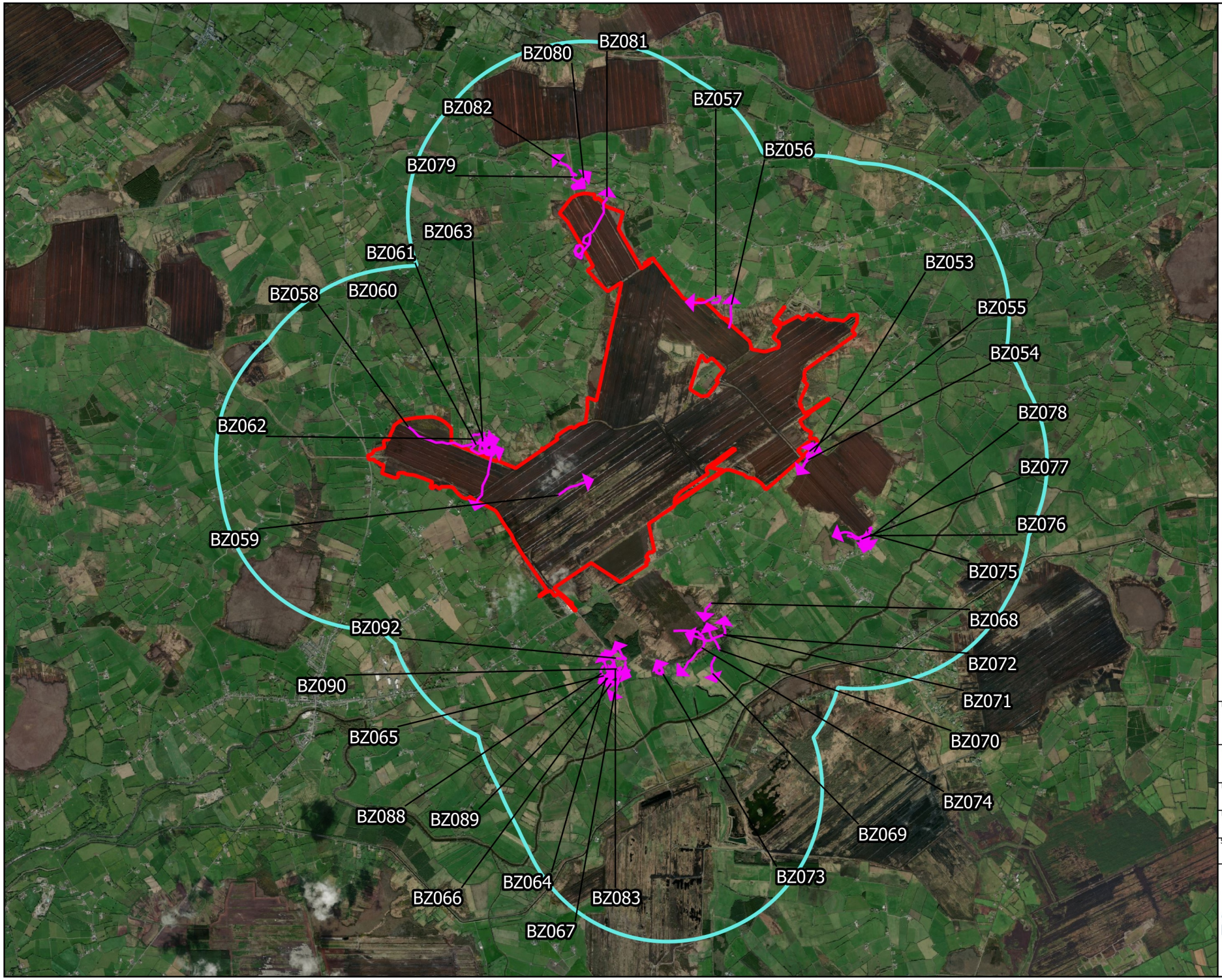
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Buzzard Observations Apr-May 2022 Breeding Raptor Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 16.3b
Scale: 1:65,000	Date: 17.07.2025

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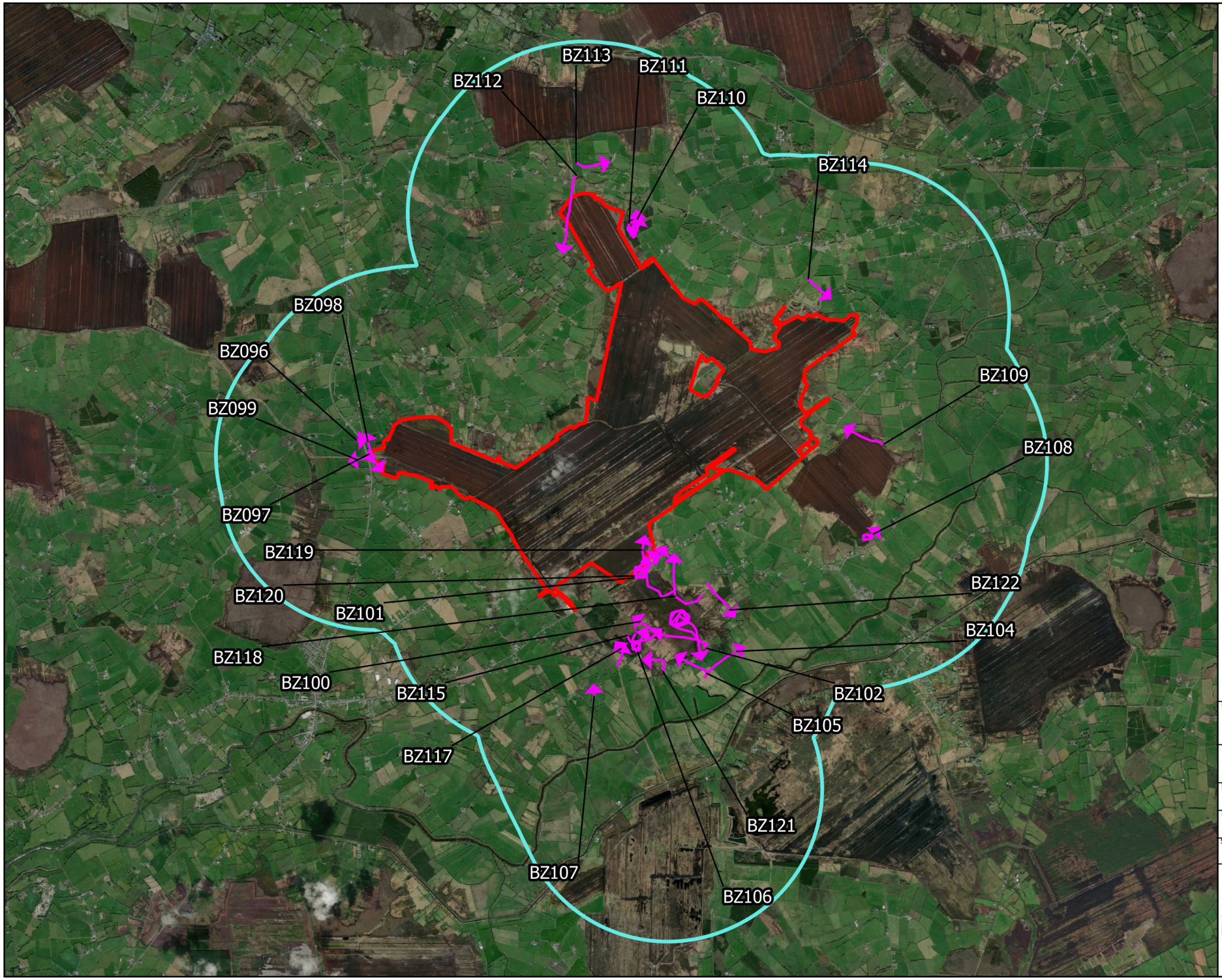
- Application Site Boundary
- Survey Area
- Flight Observation

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Drawing Title	Buzzard Observations Jun-Jul 2022 Breeding Raptor Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 16.3c
Scale: 1:65,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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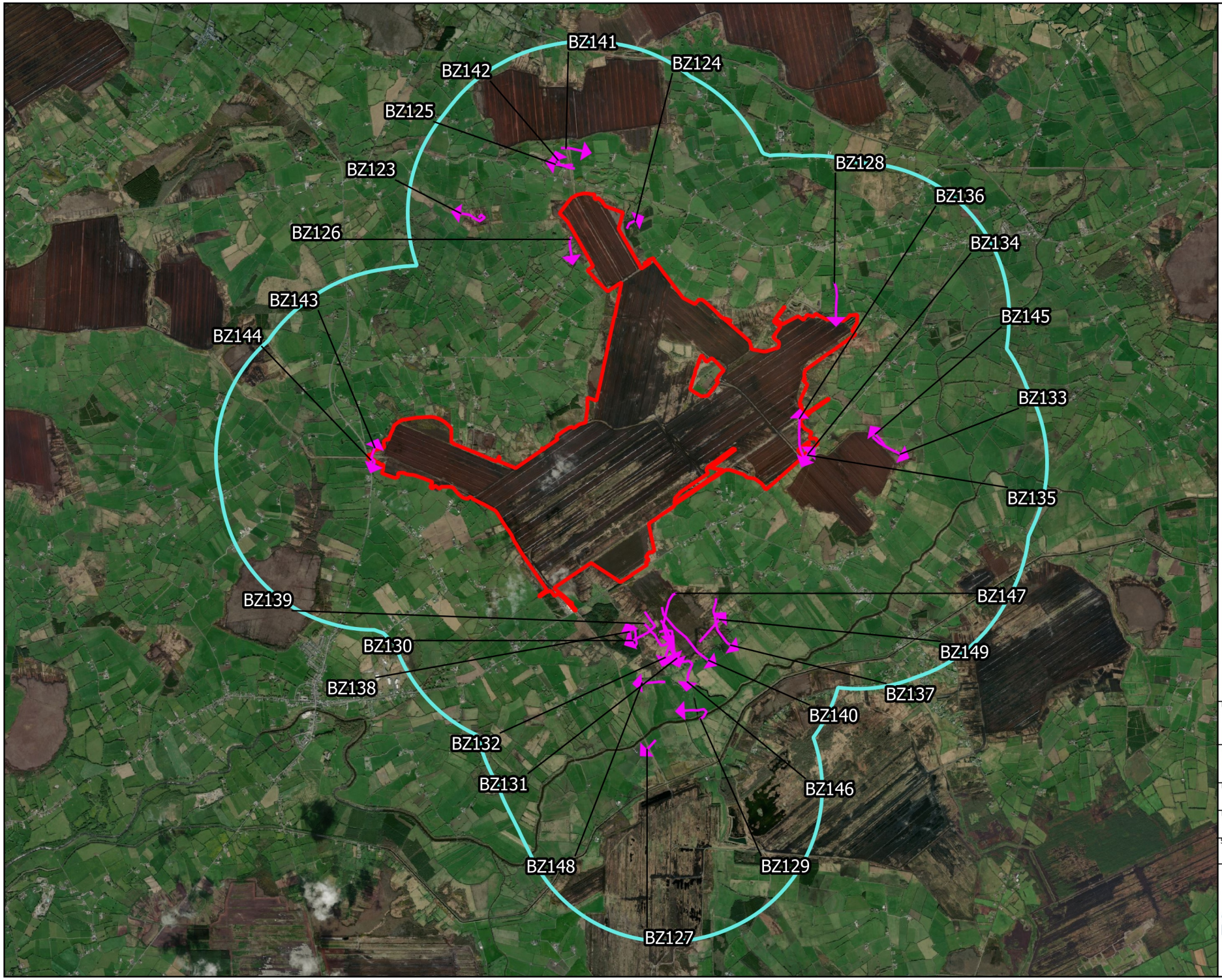
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Drawing Title
Buzzard Observations Apr-May 2023
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.3d
Scale	Date
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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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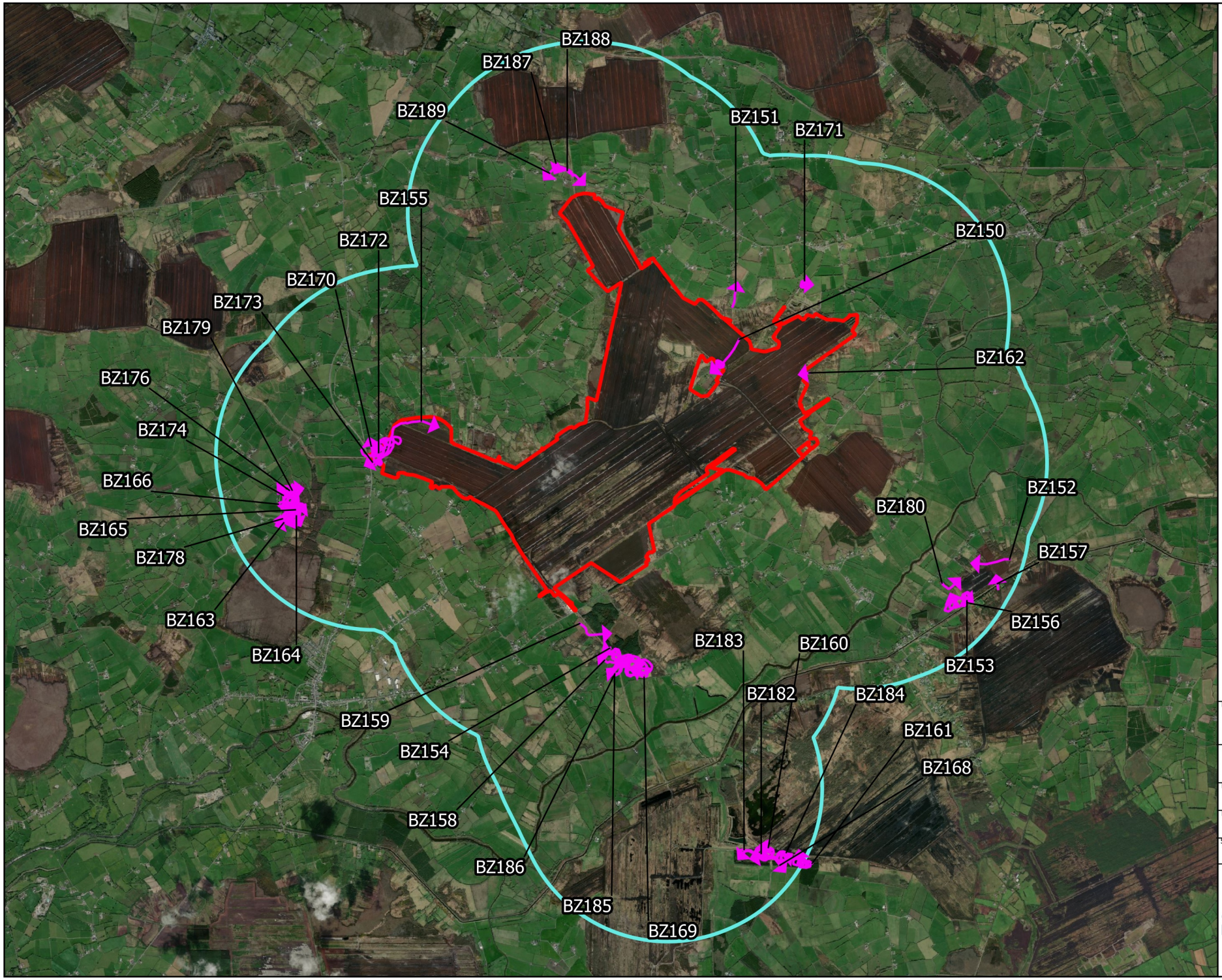
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Drawing Title: Buzzard Observations Jun-Jul 2023 Breeding Raptor Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.3e
Scale	Date
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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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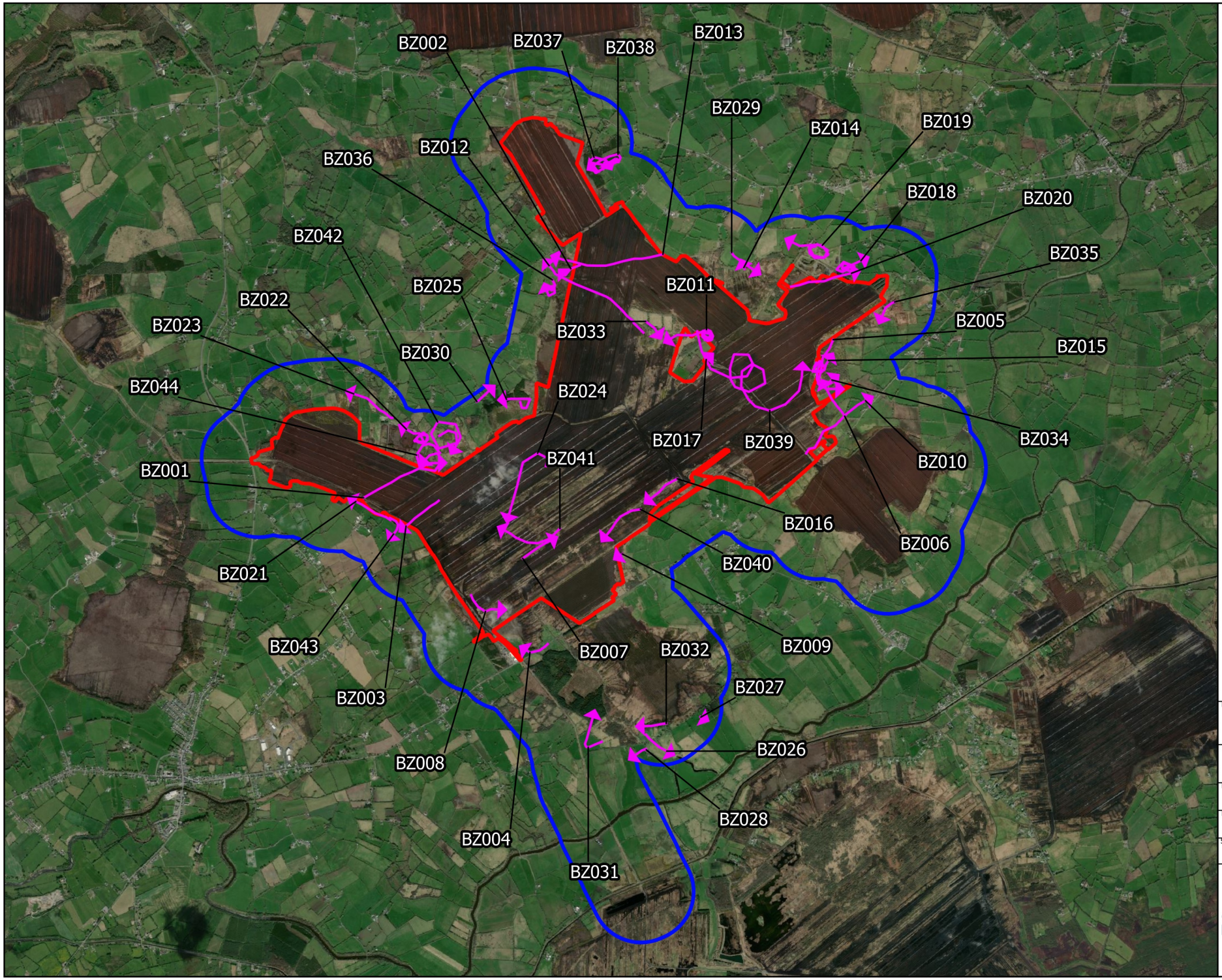
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Drawing Title
Buzzard Observations 2024
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.3e
Scale	Date
1:65,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
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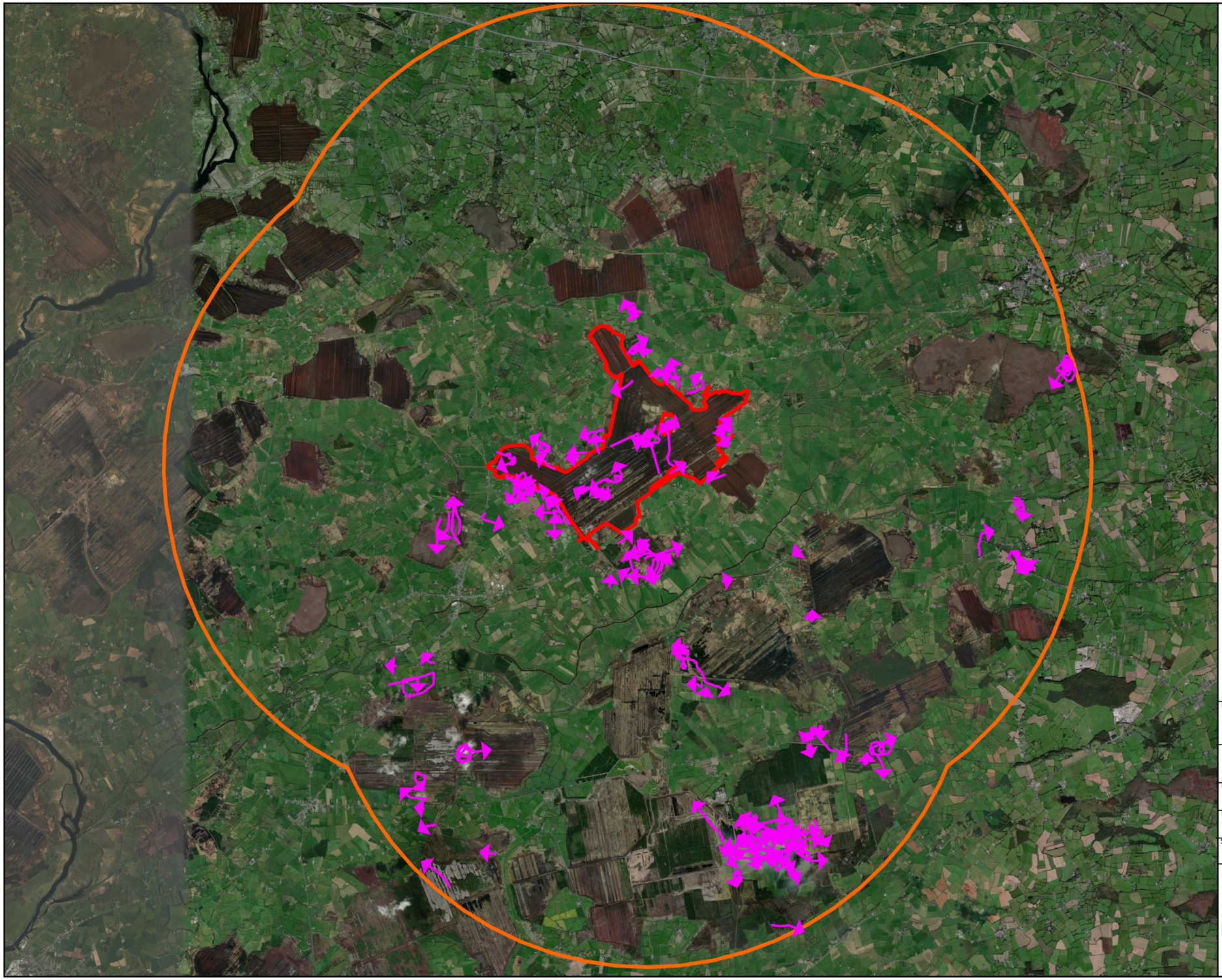
Buzzard Observations
Winter Walkover Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.4
Scale	Date
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Drawing Title

Buzzard
Incidental Records

Project Title

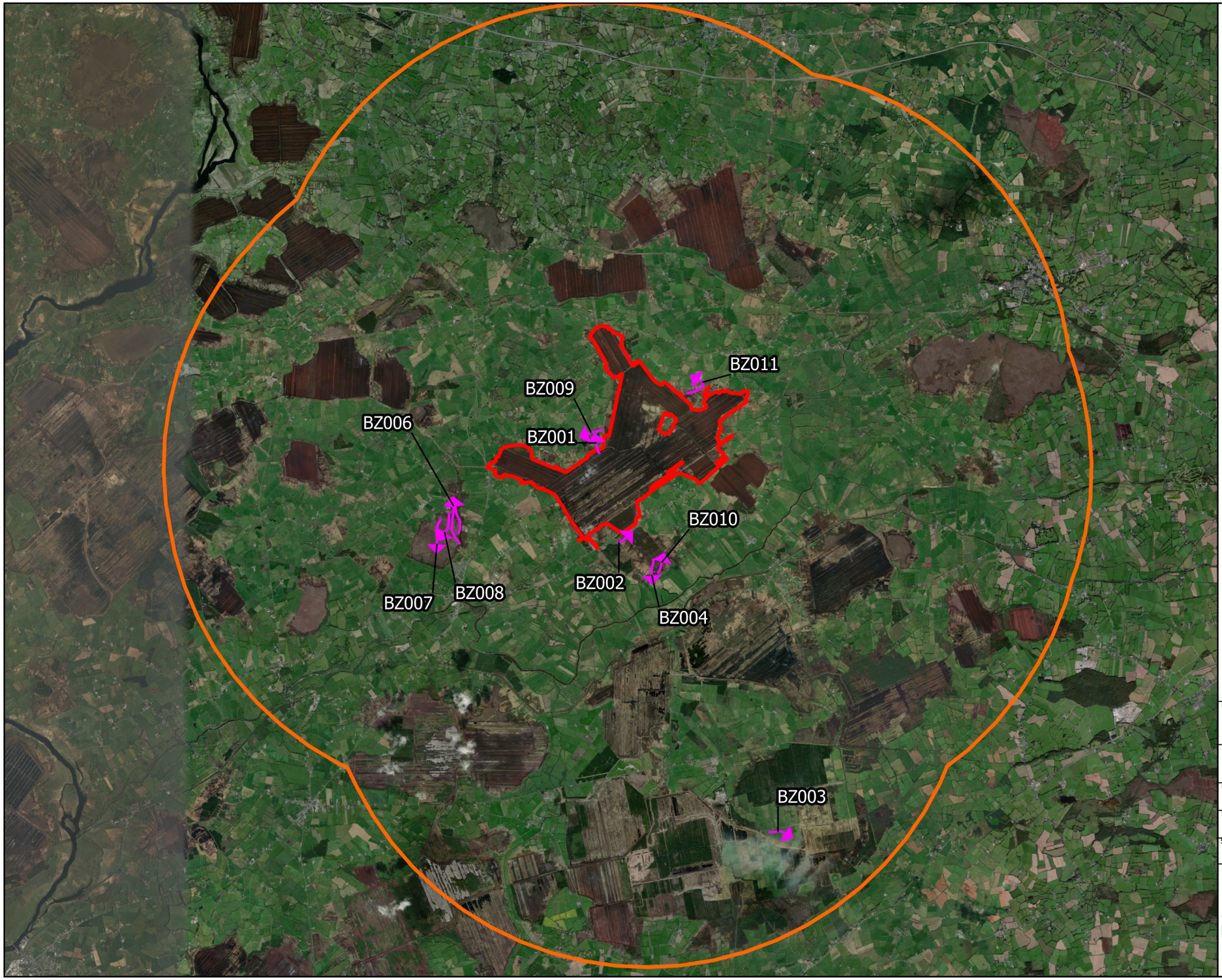
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5
Scale	Date
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Incidental observations of Buzzard have been further divided by season in the following Figures for clarity purposes:

- Figure 16-5a – Buzzard Incidental Data Winter Season 2020/21
- Figure 16-5b – Buzzard Incidental Data Breeding Season 2021 and Winter Season 2021/22
- Figure 16-5c – Buzzard Incidental Data Breeding Season 2022 and Winter Season 2022/23
- Figure 16-5d – Buzzard Incidental Data Breeding Season 2023 and Winter Season 2023/24
- Figure 16-5e – Buzzard Incidental Data Breeding Season 2024
- Figure 16-5f – Buzzard Incidental Data Winter Season 2024/25



Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

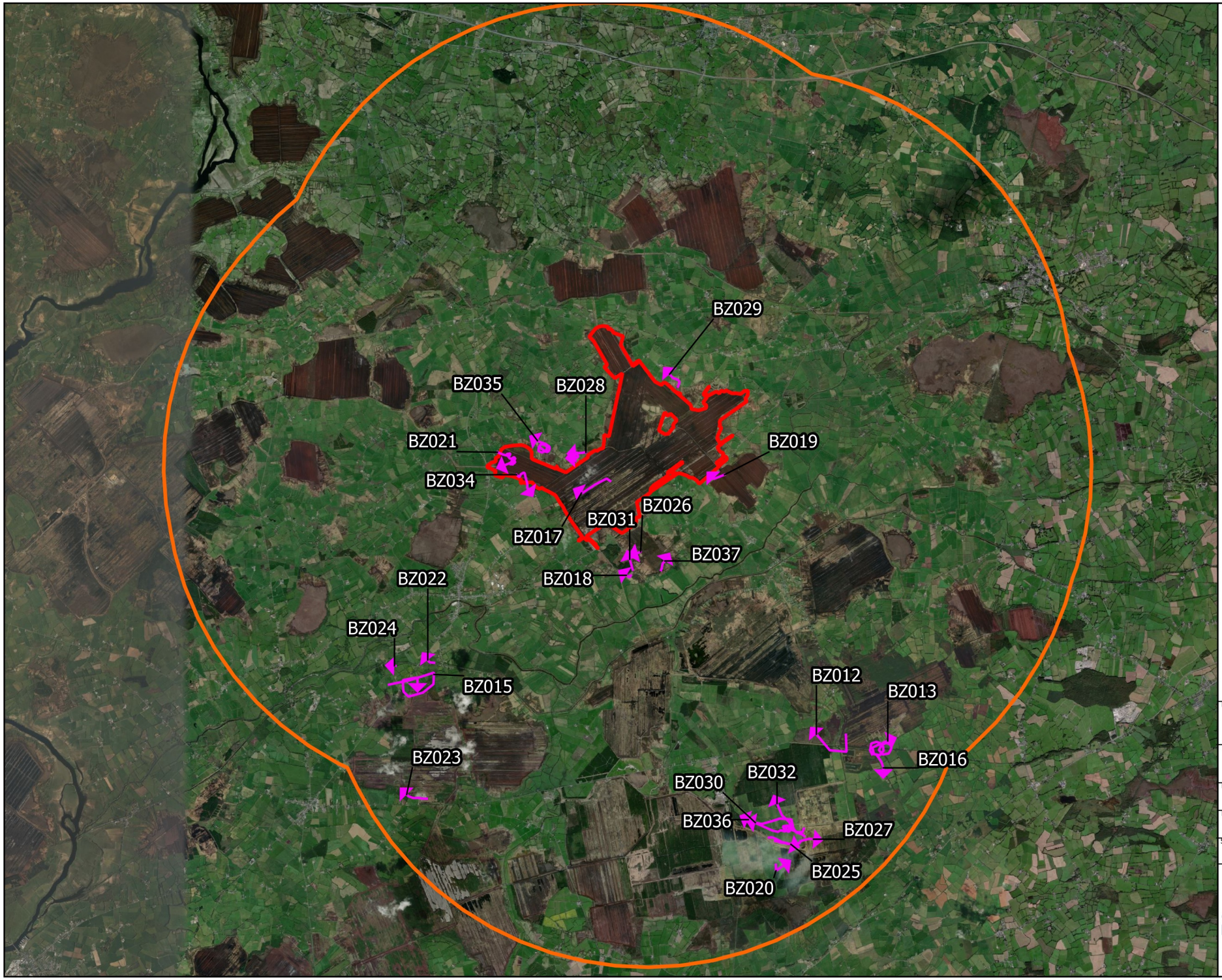
Buzzard
Incidental Records (Winter 2020/21)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5a
Scale	Date
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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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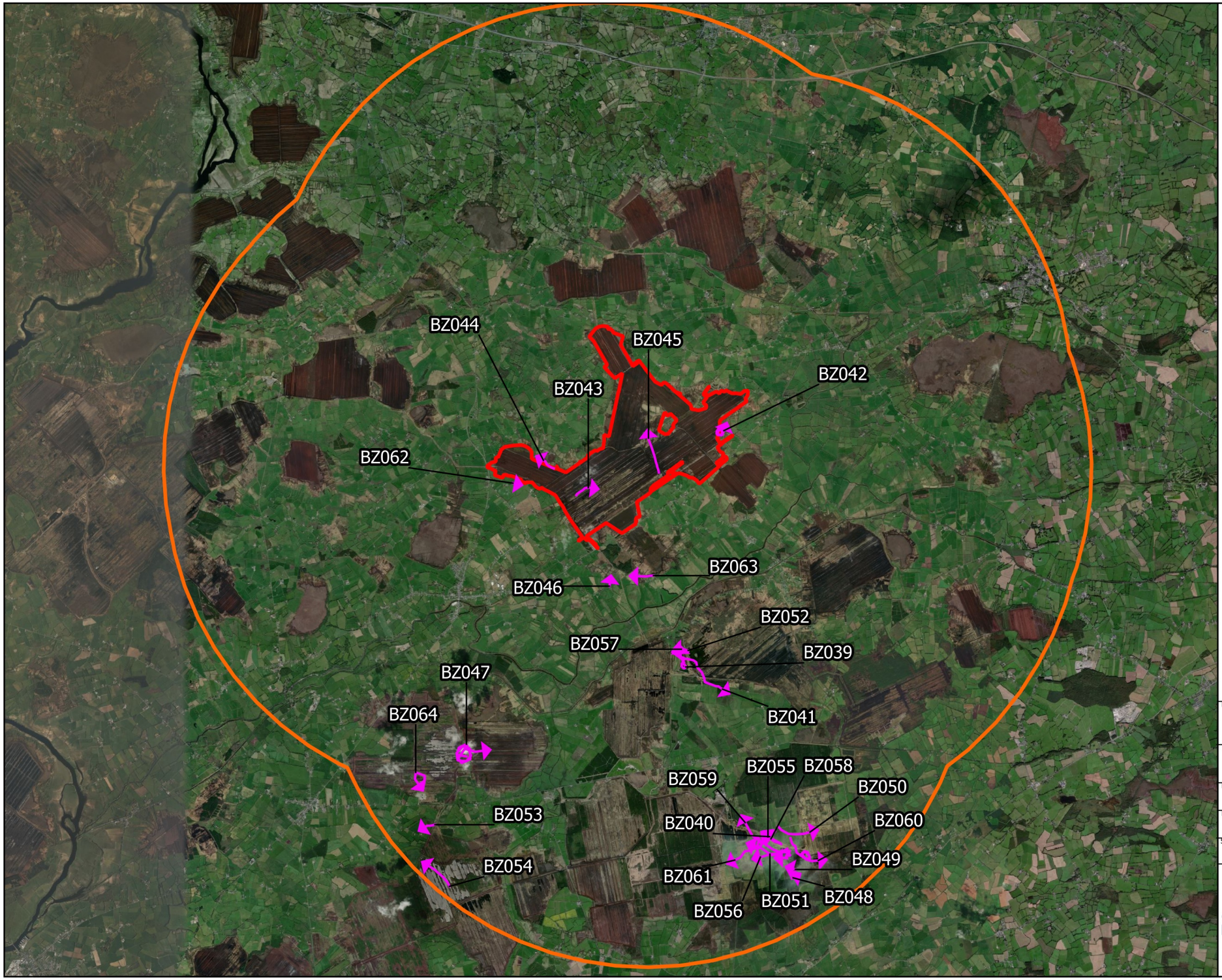
Buzzard
Incidental Records (Apr21-Mar22)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5b
Scale	Date
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- Application Site Boundary
- 8km Survey Radius
- Observation

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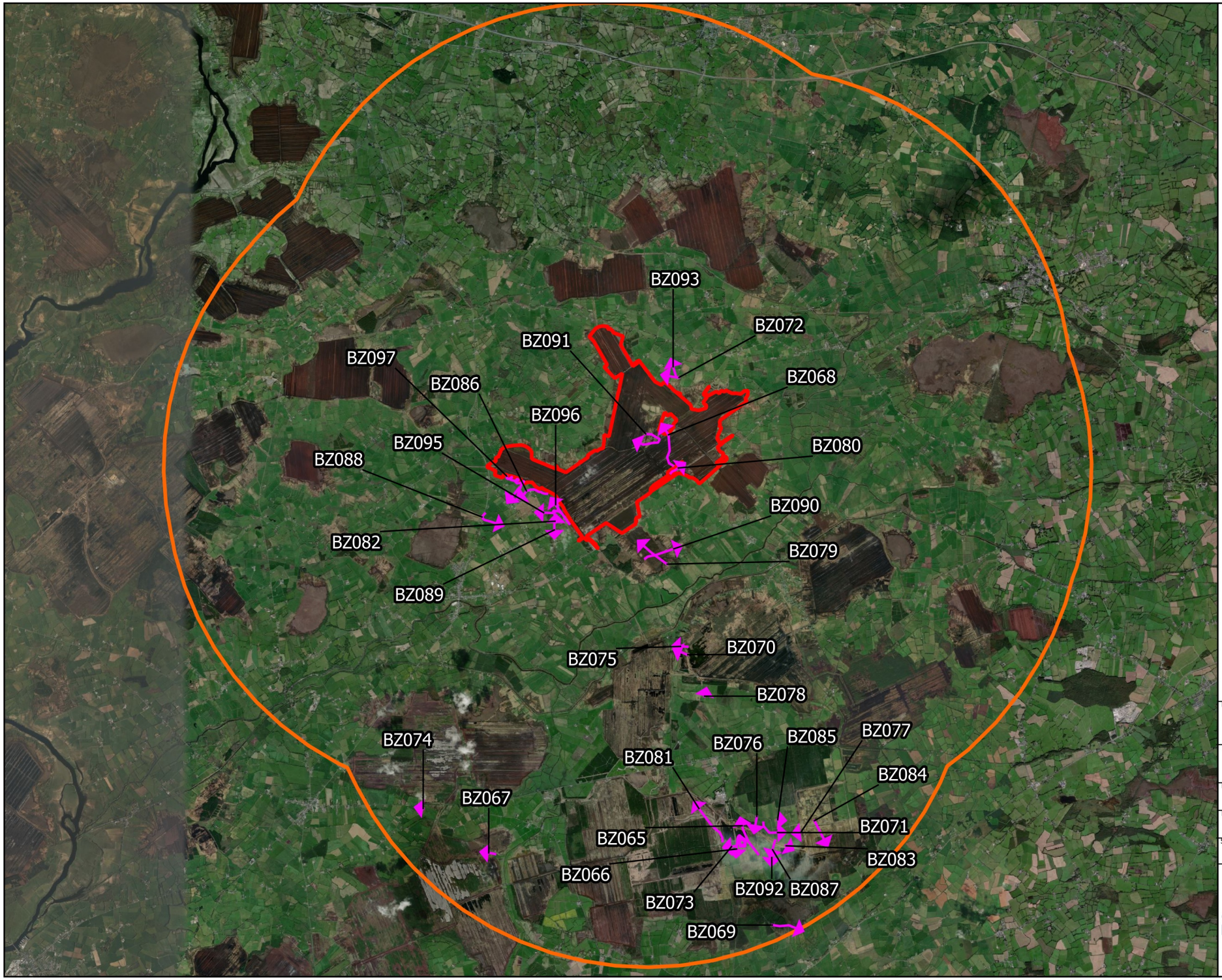
Buzzard
Incidental Records (Apr22-Mar23)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5c
Scale	Date
1:122,000	17.07.2025

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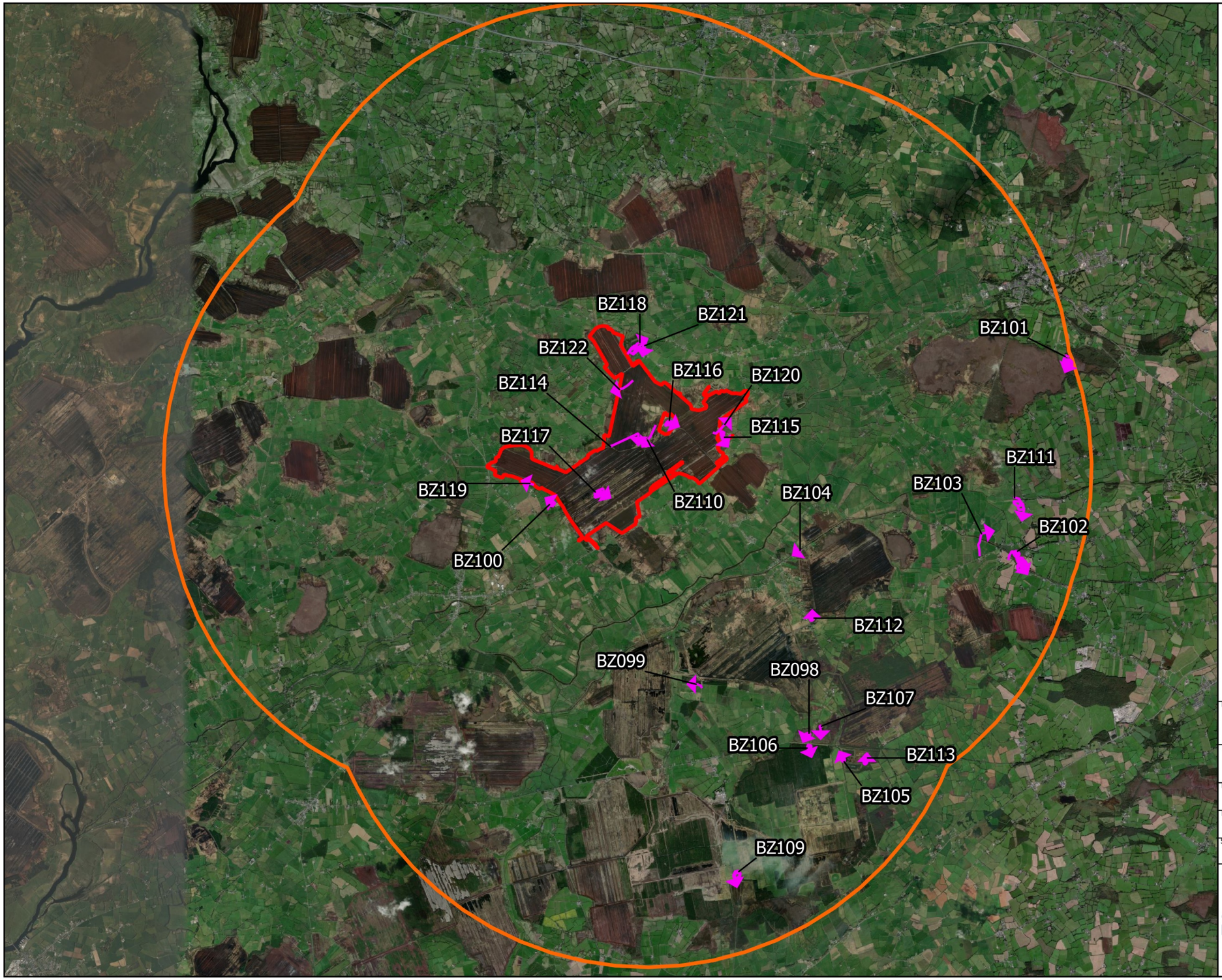
Buzzard
Incidental Records (Apr23-Mar24)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5d
Scale	Date
1:122,000	17.07.2025

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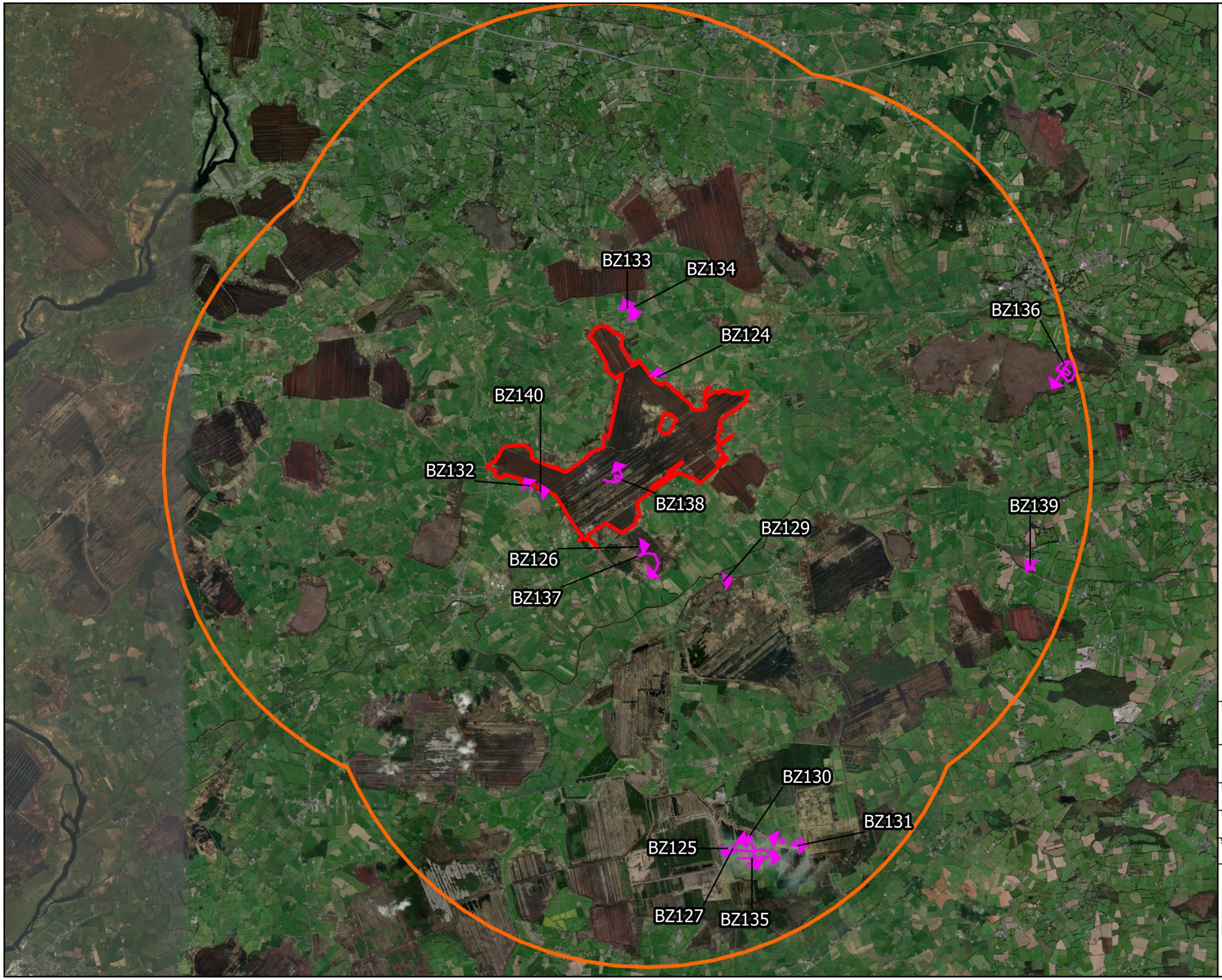
- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title	Buzzard Incidental Records (Apr-Sep 2024)
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 16.5e
Scale: 1:122,000	Date: 17.07.2025

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Map Legend

- Application Site Boundary
- 8km Survey Radius
- Observation

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Drawing Title

Buzzard
Incidental Records (Winter 2024/25)

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 16.5f
Scale	Date
1:122,000	17.07.2025

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17. LONG-EARED OWL

Table 17-1 Long-eared Owl Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
LE001	VP1	22/05/2023	22:20	Long-eared Owl	1	24	24	0	0	0	cutover bog and improved grassland; flying	CR

Table 17-2 Long-eared Owl Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
LE001	Breeding Woodcock Survey; VP2 area.	21/06/2023	22:59	Long-eared Owl	1	cutover bog; flying	CR
LE002	Hen Harrier Roost Survey; HHVP4	13/02/2024	18:24	Long-eared Owl	1	scrub/transitional woodland; calling	CR



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title

Long-eared Owl
Vantage Point Survey Observations

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 17.1
Scale	Date
1:45,000	17.07.2025

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Map Legend

Application Site Boundary

Observation

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Drawing Title

Long-eared Owl
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 17.2
Scale	Date
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18. SPARROWHAWK

Note: Sensitive records relating to breeding sites have been omitted from this Appendix and are presented separately in Appendix D – Confidential Data.

Table 18-1 Sparrowhawk Vantage Point Survey Data

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH001	VP1	05/11/2020	11:47	Sparrowhawk	1	82	10	10	62	0	cutover bog and scrub; landing in scrub, female	JH
SH002	VP1	05/11/2020	12:15	Sparrowhawk	1	10	10	0	0	0	cutover bog and scrub; hunting	JH
SH003	VP4	12/11/2020	10:35	Sparrowhawk	1	80	20	60	0	0	conifer plantation and cutover bog; hunting and gliding, disappearing into wd4	JH
SH004	VP1	10/12/2020	12:15	Sparrowhawk	1	20	20	0	0	0	cutover bog and scrub; hunting, female	JH
SH005	VP4	15/12/2020	14:39	Sparrowhawk	1	55	55	0	0	0	cutover bog and improved agricultural grassland; travelling, female	JH
SH006	VP6	16/12/2020	11:37	Sparrowhawk	1	20	20	0	0	0	cutover bog; travelling, female landing into heather at edge of cutaway	JH
SH007	VP6	16/12/2020	15:33	Sparrowhawk	1	50	50	0	0	0	cutover bog and scrub; travelling, male disappearing behind peat pile	JH
SH008	VP1	15/01/2021	08:51	Sparrowhawk	1	27	27	0	0	0	cutover bog and scrub; travelling, female. disappearing behind scrub.	JH
SH009	VP1	15/01/2021	08:56	Sparrowhawk	1	35	35	0	0	0	cutover bog and scrub; hunting, female	JH
SH010	VP1	15/01/2021	10:24	Sparrowhawk	1	142	0	142	0	0	cutover bog and scrub; travelling, female	JH
SH011	VP1	15/01/2021	11:55	Sparrowhawk	1	85	0	85	0	0	cutover bog and scrub; travelling	JH
SH012	VP1	15/01/2021	13:52	Sparrowhawk	1	49	49	0	0	0	cutover bog and scrub; mobbing kestrel, female	JH
SH013	VP2	22/01/2021	12:30	Sparrowhawk	1	105	0	0	105	0	cutover bog, scrub and improved agricultural grassland; travelling	JH
SH014	VP6	26/02/2021	10:10	Sparrowhawk	1	80	0	0	80	0	cutover bog, scrub and improved agricultural grassland; spiralling flight, female	JH

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH015	VP1	02/03/2021	08:29	Sparrowhawk	1	28	28	0	0	0	cutover bog, scrub and improved agricultural grassland; flying and vocalising, male. disappearing into scrub.	JH
SH016	VP1	02/03/2021	08:45	Sparrowhawk	1	35	35	0	0	0	cutover bog, improved agricultural grassland and scrub; flying and vocalising, male	JH
SH017	VP1	02/03/2021	09:01	Sparrowhawk	1	22	22	0	0	0	cutover bog, scrub and hedgerows; travelling, male , landing in treeline	JH
SH018	VP4	10/03/2021	10:00	Sparrowhawk	1	47	47	0	0	0	cutover bog and conifer plantation; hunting, female , disappearing into wd4	JH
SH019	VP6	12/03/2021	08:07	Sparrowhawk	1	47	15	32	0	0	cutover bog and scrub; travelling, disappearing into scrub. female	JH
SH020	VP3	27/05/2021	08:55	Sparrowhawk	1	32	30	0	7	0	cutover bog and scrub; flying, emerged from scrub flew across bog close to ground meadow pipit flew aggressively behind it (female sh)	SOB
SH021	VP4	28/05/2021	10:14	Sparrowhawk	1	25	0	25	0	0	improved agricultural grassland and treelines; flying, female sparrowhawk flying across farm fields through treelines then lost sight of it lost	SOB
SH022	VP3	22/06/2021	21:22	Sparrowhawk	1	5	5	0	0	0	scrub; flying	SOB
SH023	VP6	12/07/2021	20:18	Sparrowhawk	1	145	145	0	0	0	cutover bog and mixed broadleaved woodland; flying, male	JG
SH024	VP2	08/10/2021	09:43	Sparrowhawk	1	83	2	5	76	0	cutover bog; flying, male bird observed getting mobbed by meadow pipits. last seen heading north east at low altitude.	CR
SH025	VP1	02/12/2021	09:20	Sparrowhawk	1	10	10	0	0	0	cutover bog and scrub; flying, female sparrowhawk observed briefly heading north east.	CR
SH026	VP1	02/12/2021	11:30	Sparrowhawk	1	41	41	0	0	0	cutover bog and scrub; flying, female observed heading north east. possibly same bird observed at 09:20.	CR
SH027	VP4	14/03/2022	14:10	Sparrowhawk	1	30	30	0	0	0	cutover bog and scrub; flying, male heading west.	CR
SH028	VP1	14/06/2022	13:24	Sparrowhawk	1	40	40	0	0	0	cutover bog and scrub; flying, male observed heading north west.	CR
SH029	VP6	09/07/2022	19:21	Sparrowhawk	1	45	45	0	0	0	cutover bog; flying	CR

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH030	VP4	05/08/2022	15:06	Sparrowhawk	1	20	20	0	0	0	cutover bog and scrub; flying, female heading north	CR
SH031	VP5	16/08/2022	17:01	Sparrowhawk	1	23	23	0	0	0	cutover bog and bog woodland; flying, female	CR
SH032	VP6	26/08/2022	09:45	Sparrowhawk	1	22	22	0	0	0	cutover bog; flying, female	CR
SH033	VP1	16/11/2022	15:18	Sparrowhawk	1	14	14	0	0	0	cutover bog; flying	CR
SH034	VP4	13/01/2023	11:45	Sparrowhawk	1	55	55	0	0	0	cutover bog; flying, female heading south west.	CR
SH035	VP1	27/01/2023	17:07	Sparrowhawk	1	59	10	49	0	0	cutover bog and scrub; flying, male heading north east.	CR
SH036	VP3	17/02/2023	11:36	Sparrowhawk	1	335	13	10	312	0	cutover bog, scrub and highly modified/non-native woodland; soaring/mobbed by hooded crows, female last seen heading north.	CR
SH037	VP4	06/03/2023	16:28	Sparrowhawk	1	78	3	5	70	0	conifer plantation and cutover bog; soaring, female heading north	CR
SH039	VP5	01/06/2023	15:52	Sparrowhawk	1	60	13	47	0	0	cutover bog and improved grassland; flying, adult female.	CR
SH040	VP4	04/07/2023	14:19	Sparrowhawk	1	18	18	0	0	0	cutover bog; flying, female	CR
SH041	VP4	02/08/2023	20:59	Sparrowhawk	1	29	29	0	0	0	cutover bog; flying	CR
SH042	VP1	08/08/2023	19:58	Sparrowhawk	1	25	25	0	0	0	cutover bog and improved grassland; flying, female	CR
SH043	VP3	13/12/2023	15:30	Sparrowhawk	1	12	12	0	0	0	cutover bog; flying, male	CR
SH044	VP4	26/01/2024	09:09	Sparrowhawk	2	271	71	150	50	0	scrub/transitional woodland, mixed broadleaved woodland and bogs; flying, male and female flying together	JD
SH045	VP4	26/01/2024	10:10	Sparrowhawk	2	283	10	180	93	0	scrub/transitional woodland, bogs and conifer plantation; flying, male and female flying and circling	JD
SH046	VP4	26/01/2024	12:09	Sparrowhawk	1	243	13	30	150	50	bogs, scrub/transitional woodland and mixed broadleaved woodland; flying, circling, female	JD
SH047	VP4	26/01/2024	13:38	Sparrowhawk	1	21	21	0	0	0	bogs and scrub/transitional woodland; flying, mobbed, being mobbed by hooded crows	JD

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH048	VP6	30/01/2024	09:32	Sparrowhawk	2	56	36	20	0	0	bogs and scrub/transitional woodland; travelling, one male one female	JD
SH049	VP6	30/01/2024	10:28	Sparrowhawk	1	57	40	17	0	0	bogs and scrub/transitional woodland; travelling, female	JD
SH050	VP1	20/02/2024	17:44	Sparrowhawk	1	48	10	13	25	0	cutover bog and scrub/transitional woodland; flying	CR
SH051	VP3	21/02/2024	13:45	Sparrowhawk	1	115	8	37	70	0	cutover bog and scrub/transitional woodland; soaring	CR
SH052	VP4	28/02/2024	12:54	Sparrowhawk	1	29	20	9	0	0	bogs and mixed broadleaved/conifer woodland; flying	JD
SH053	VP4	28/02/2024	13:46	Sparrowhawk	1	6	6	0	0	0	bogs; flying, male	JD
SH054	VP5	15/03/2024	07:11	Sparrowhawk	1	115	35	70	10	0	bogs and semi-natural woodland; flying	JD
SH055	VP5	15/03/2024	12:59	Sparrowhawk	1	32	32	0	0	0	bogs and scrub/transitional woodland; flying, male	JD
SH057	VP1	18/06/2024	10:22	Sparrowhawk	1	25	0	25	0	0	bogs and scrub/transitional woodland; soaring, spotted whilst watching kestrel. didn't see where it went as i stayed on the kestrel.	PDC
SH058	VP2	19/06/2024	11:41	Sparrowhawk	1	150	0	0	150	0	bogs; soaring	PDC
SH059	VP2	11/07/2024	09:15	Sparrowhawk	1	42	0	42	0	0	highly modified/non-native woodland; soaring, not 100% sure it was sparrowhawk due to distance, but it didn't hover and wasn't big enough for buzzard.	PDC
SH060	VP2	11/07/2024	11:44	Sparrowhawk	1	17	0	17	0	0	scrub; travelling, briefly seen above scrub before dropping into the scrub	PDC
SH061	VP3	15/07/2024	09:06	Sparrowhawk	1	19	19	0	0	0	bogs and scrub; travelling, male, very low over bog	PDC
SH063	VP6	16/07/2024	11:15	Sparrowhawk	1	19	19	0	0	0	woodland and scrub; travelling	PDC
SH064	VP5	19/07/2024	08:34	Sparrowhawk	1	25	25	0	0	0	cutover bog; travelling	KS
SH065	VP1	06/08/2024	11:11	Sparrowhawk	1	26	26	0	0	0	bogs and scrub; travelling, female, flew out of scrub low over bog then disappeared into more scrub	PDC

Ref.	VP	Date	Time	Species	Number	Duration of flight (s)	Band 1 (0-15m)	Band 2 (15-25m)	Band 3 (25-200m)	Band 4 (>200m)	Habitat and activity	Surveyor
SH069	VP4	13/08/2024	12:15	Sparrowhawk	1	126	0	0	126	0	highly modified/non-native woodland and improved agricultural grassland; mobbed, soaring, female from size, being mobbed by a flock of starlings	PDC
SH070	VP2	11/09/2024	09:06	Sparrowhawk	1	190	50	140	0	0	bogs and scrub; travelling	PDC
SH071	VP2	11/09/2024	10:45	Sparrowhawk	1	7	0	7	0	0	highly modified/non-native woodland; travelling, mobbed, mobbed by flock of starlings	PDC
SH072	VP2	11/09/2024	11:08	Sparrowhawk	1	23	23	0	0	0	bogs and scrub; travelling, may have been flushed by buzzard	PDC
SH074	VP6	17/09/2024	11:16	Sparrowhawk	1	-	-	-	-	-	scrub; perched, different bird to previous record. watched this bird for over an hour whilst other sparrowhawk was calling. female.	PDC
SH075	VP4	18/09/2024	09:08	Sparrowhawk	1	23	23	0	0	0	highly modified/non-native woodland and hedgerows; travelling, female, dropped into trees	PDC
SH076	VP4	18/09/2024	10:52	Sparrowhawk	1	90	0	0	90	0	conifer plantation and improved agricultural grassland; travelling, seemed to be following hen harrier	PDC
SH077	VP4	18/09/2024	12:06	Sparrowhawk	1	390	0	0	390	0	scrub; soaring, travelling	PDC
SH078	VP5	19/09/2024	10:43	Sparrowhawk	1	155	0	0	155	0	improved agricultural grassland and bogs; travelling, soaring, mobbed by hooded crow	PDC
SH079	VP6	21/11/2024	11:49	Sparrowhawk	1	46	36	10	0	0	cutover bog and semi-natural woodland; travelling	CC
SH080	VP3	13/11/2024	07:10	Sparrowhawk	1	36	36	0	0	0	bogs; hunting	FOD
SH081	VP5	29/01/2025	12:47	Sparrowhawk	1	27	7	20	0	0	cutover bog; travelling, dropped behind trees didn't see it come back up	CC
SH084	VP1	11/03/2025	12:11	Sparrowhawk	1	49	9	40	0	0	cutover bog, semi-natural woodland and scrub/transitional woodland; flying, circling	ZE
SH085	VP1	11/03/2025	12:17	Sparrowhawk	1	149	0	29	120	0	cutover bog, improved agricultural grassland and linear woodland/scrub; flying, circling, soaring, female; possibly the same bird	ZE

Table 18-2 Sparrowhawk Breeding Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SH001	22/04/2021	10:48	-	Sparrowhawk	1	cutover bog and scrub; flight then perch, female, brief circling (suitable nesting habitat; possible breeder)	TR
SH002	22/04/2021	12:05	-	Sparrowhawk	1	cutover bog, scrub and drainage ditches; flight, flushed, male (suitable nesting habitat; possible breeder)	TR
SH006	15/07/2022	07:10	-	Sparrowhawk	1	improved grassland; flying, female (suitable nesting habitat; possible breeder)	CR
SH007	06/04/2023	14:57	-	Sparrowhawk	1	improved grassland; soaring (suitable nesting habitat; possible breeder)	CR
SH008	15/06/2023	13:03	-	Sparrowhawk	1	cutover bog; soaring (suitable nesting habitat; possible breeder)	CR
SH009	15/06/2023	14:35	-	Sparrowhawk	1	cutover bog; calling, heard calling just as buzzard soared over area. (suitable nesting habitat; possible breeder)	CR
SH010	26/06/2024	10:49	T3	Sparrowhawk	1	highly modified/non-native woodland; travelling, soaring, distant sighting, 90% sure it was sparrowhawk (suitable nesting habitat; possible breeder)	PDC
SH011	24/07/2024	08:02	T3	Sparrowhawk	1	bogs and scrub; hunting, perched, female, spotted chasing a sand martin. she then perched a couple of times before flying into scrub. (suitable nesting habitat; possible breeder)	PDC

Table 18-3 Sparrowhawk Breeding Raptor Survey Data

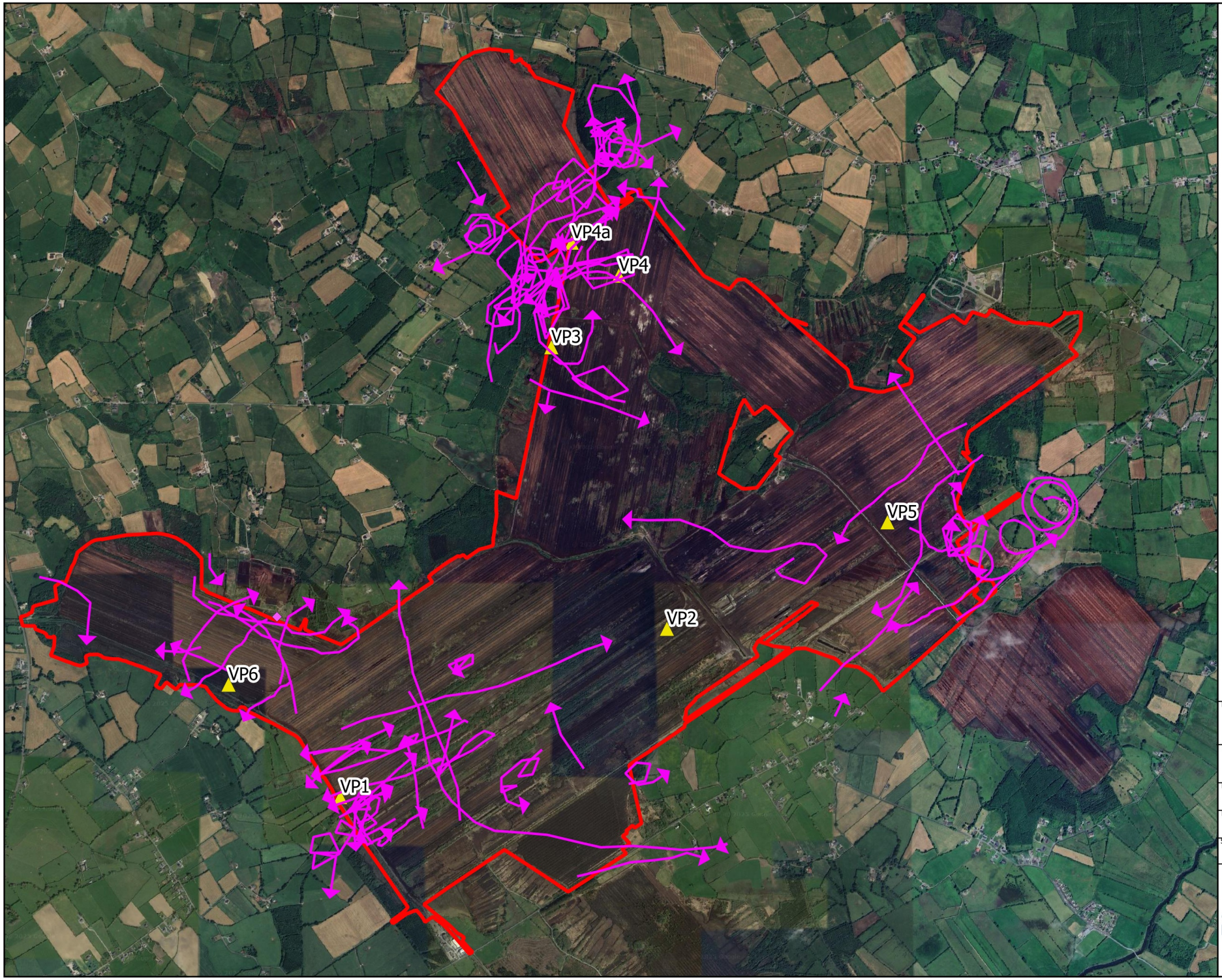
Ref.	BR	Date	Time	Species	Number	Habitat and activity	Breeding status	Surveyor
SH001	BR3	10/04/2021	08:10	Sparrowhawk	1	scrub/transitional woodland, semi-natural grassland and bogs, hunting, male	suitable nesting habitat; possible breeder	SA
SH002	BR8	23/04/2021	09:15	Sparrowhawk	1	conifer plantation and semi-natural woodland, flying, ad male	suitable nesting habitat; possible breeder	SA
SH004	BR4	23/05/2021	06:10	Sparrowhawk	1	bogs and scrub/transitional woodland, hunting	suitable nesting habitat; possible breeder	SA
SH007	BR2	19/06/2021	09:35	Sparrowhawk	1	bogs and semi-natural woodland, flying & circling, ad female.	suitable nesting habitat; possible breeder	SA
SH008	BR8	20/06/2021	11:14	Sparrowhawk	1	conifer plantation, bogs and semi-natural woodland, hunting & perched, ad female.	suitable nesting habitat; possible breeder	SA
SH009	BR4	27/07/2021	15:39	Sparrowhawk	1	improved agricultural grassland, travelling flight, mobbed by swallow	suitable nesting habitat; possible breeder	JG
SH010	BR2	19/07/2022	16:57	Sparrowhawk	1	conifer plantation, calling	suitable nesting habitat; possible breeder	CR
SH011	BR4	05/04/2023	16:47	Sparrowhawk	1	improved grassland, flying	suitable nesting habitat; possible breeder	CR
SH012	BR2	24/05/2023	16:35	Sparrowhawk	1	improved grassland, flying, female heading north.	suitable nesting habitat; possible breeder	CR
SH014	BR12	04/04/2024	11:17	Sparrowhawk	1	bogs, flying	suitable nesting habitat; possible breeder	SD
SH015	BR2	28/05/2024	09:18	Sparrowhawk	1	semi-natural woodland and scrub, flying, female	suitable nesting habitat; possible breeder	NL

Table 18-4 Sparrowhawk Winter Walkover Survey Data

Ref.	Date	Time	Transect	Species	Number	Habitat and activity	Surveyor
SH001	17/01/2022	13:30	-	Sparrowhawk	1	scrub and cutover bog; flying, male bird (wintering)	CR
SH002	22/03/2022	14:07	-	Sparrowhawk	1	cutover bog and scrub; flying, female heading west. (wintering)	CR
SH003	05/10/2023	15:54	-	Sparrowhawk	1	cutover bog; flying, female (wintering)	CR
SH004	13/11/2023	13:30	-	Sparrowhawk	1	cutover bog; flying, female (wintering)	CR
SH005	14/11/2023	13:22	-	Sparrowhawk	1	improved grassland; flying, female (wintering)	CR
SH006	29/11/2023	14:42	-	Sparrowhawk	1	cutover bog; flying (wintering)	CR
SH007	29/11/2023	16:39	-	Sparrowhawk	1	cutover bog; flying (wintering)	CR
SH008	10/01/2024	12:14	-	Sparrowhawk	1	highly modified/non-native woodland and cutover bog; soaring (wintering)	CR
SH009	10/01/2024	12:20	-	Sparrowhawk	1	highly modified/non-native woodland and cutover bog; soaring (wintering)	CR
SH010	11/01/2024	14:16	-	Sparrowhawk	1	highly modified/non-native woodland and improved grassland; flying (wintering)	CR
SH011	13/01/2025	14:58	T2	Sparrowhawk	1	cutover bog and scrub/transitional woodland; flying, male (wintering)	ZE
SH012	04/03/2025	09:39	T2	Sparrowhawk	1	cutover bog, scrub/transitional woodland and improved grassland; flying, female (wintering)	ZE
SH013	04/03/2025	13:37	T2	Sparrowhawk	1	cutover bog and bogs; flying, travelling very high (wintering)	ZE

Table 18-5 Sparrowhawk Incidental Records

Ref.	Location	Date	Time	Species	Number	Habitat and activity	Surveyor
SH001	Waterbird Distribution and Abundance Survey; Derrybrat	27/11/2020	12:16	Sparrowhawk	1	cutover bog, conifer plantation and acid oligotrophic lakes; travelling, female being mobbed by hooded crow	JH
SH002	Hen Harrier Roost Survey; HHVP4	20/01/2021	15:52	Sparrowhawk	1	upland blanket bog and scrub; travelling, female	JH
SH003	Waterbird Distribution and Abundance Survey; Noggus	25/01/2021	11:47	Sparrowhawk	1	cutover bog and acid oligotrophic lakes; hunting, landing in cover. male	JH
SH004	Breeding Woodcock Survey; Kilcummin south	27/05/2021	22:38	Sparrowhawk	1	cutover bog and semi-natural woodland; flying, flushed	JG
SH005	Hen Harrier Roost Survey; HHVP5	13/12/2021	15:44	Sparrowhawk	1	improved grassland and highly modified/non-native woodland; hunting, female observed hunting small birds.	CR
SH006	Waterbird Distribution and Abundance Survey; Tumduff	16/03/2022	14:35	Sparrowhawk	1	improved grassland; flying, male	CR
SH007	Vantage Point Survey; Near VP1	25/07/2022	13:51	Sparrowhawk	1	scrub and cutover bog; flying, male	CR
SH008	Waterbird Distribution and Abundance Survey; Cloghan Lake	30/08/2022	13:42	Sparrowhawk	1	lakes and ponds; flying	CR
SH009	Waterbird Distribution and Abundance Survey; Noggusduff	30/09/2022	12:40	Sparrowhawk	1	turloughs; flying, male heading north east	CR
SH010	Waterbird Distribution and Abundance Survey; Tumduff	12/10/2022	15:22	Sparrowhawk	1	improved grassland; flying, female heading east.	CR
SH011	Hen Harrier Roost Survey; HHVP4	22/11/2022	16:38	Sparrowhawk	1	improved grassland; flying, female heading west.	CR
SH012	Waterbird Distribution and Abundance Survey; Tumduff	30/01/2024	10:54	Sparrowhawk	1	improved grassland; flying	CR
SH013	Waterbird Distribution and Abundance Survey; River Silver	05/02/2025	12:45	Sparrowhawk	1	improved agricultural grassland, semi-natural woodland and linear woodland/scrub; flying, mobbed, female, chased by a crow	ZE
SH014	Waterbird Distribution and Abundance Survey; Tumduff	19/02/2025	14:19	Sparrowhawk	1	improved agricultural grassland; flying	ZE
SH015	Waterbird Distribution and Abundance Survey; Tumduff	06/03/2025	14:06	Sparrowhawk	1	semi-natural grassland, improved agricultural grassland and linear woodland/scrub; flying, female	ZE



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation
- Non-flight Observation

N

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Drawing Title
Sparrowhawk Observations
Vantage Point Surveys

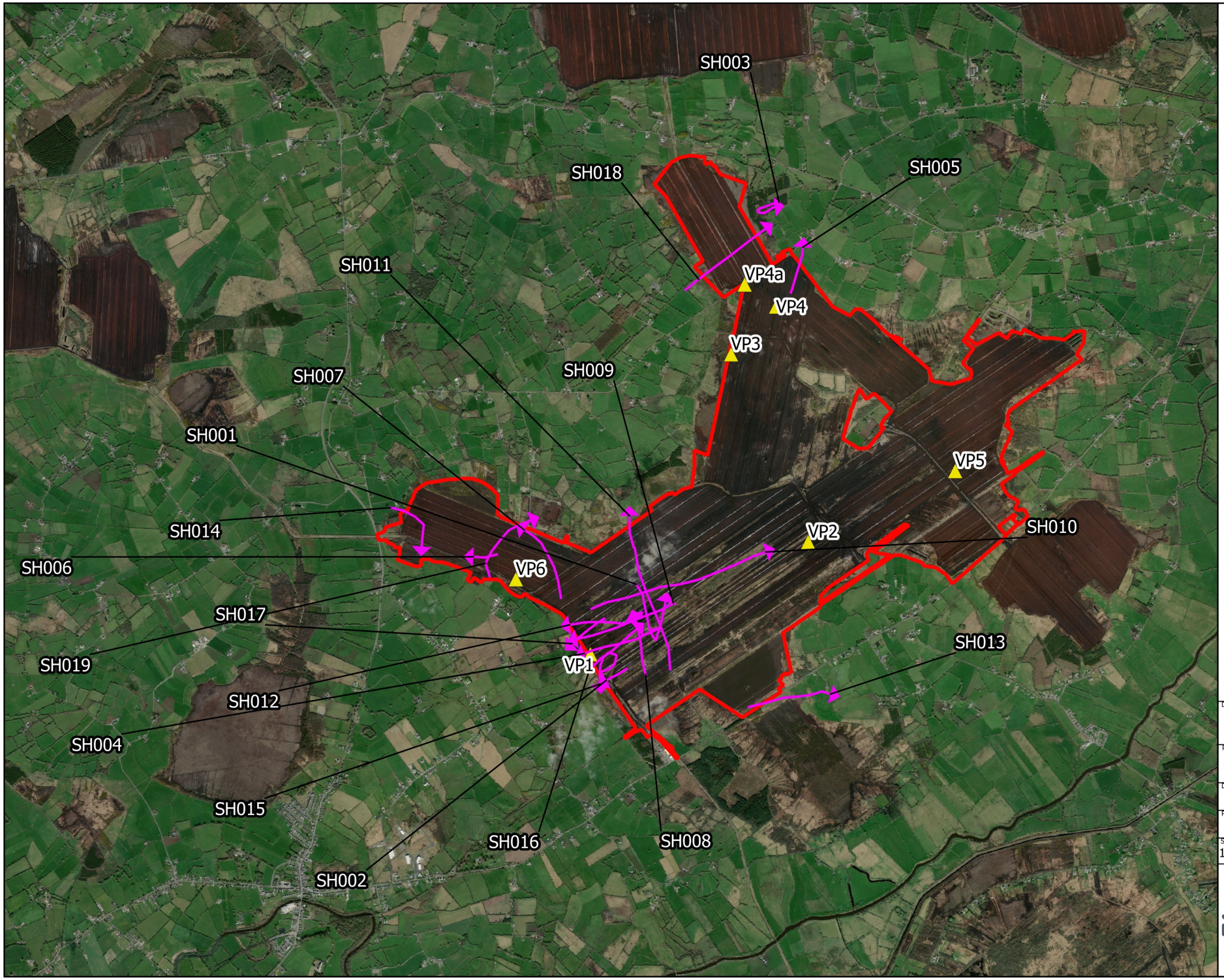
Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.1
Scale	Date
1:30,000	17.07.2025

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Observations of Sparrowhawk from Vantage Point Surveys have been further divided by season in the following Figures for clarity purposes:

- Figure 18-1a – Sparrowhawk Vantage Point Survey Data Winter Season 2020/2021
- Figure 18-1b – Sparrowhawk Vantage Point Survey Data Breeding Season 2021 and Winter Season 2021/2022
- Figure 18-1c – Sparrowhawk Vantage Point Survey Data Breeding Season 2022, Winter Season 2022/2023 and Breeding Season 2023
- Figure 18-1d – Sparrowhawk Vantage Point Survey Data Winter Season 2023/24 and Breeding Season 2024
- Figure 18-1e – Sparrowhawk Vantage Point Survey Data Winter Season 2024/2025



Map Legend

- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Drawing Title

Sparrowhawk Observations Winter 2020/21 Vantage Point Surveys

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

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DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.1a
Scale	Date
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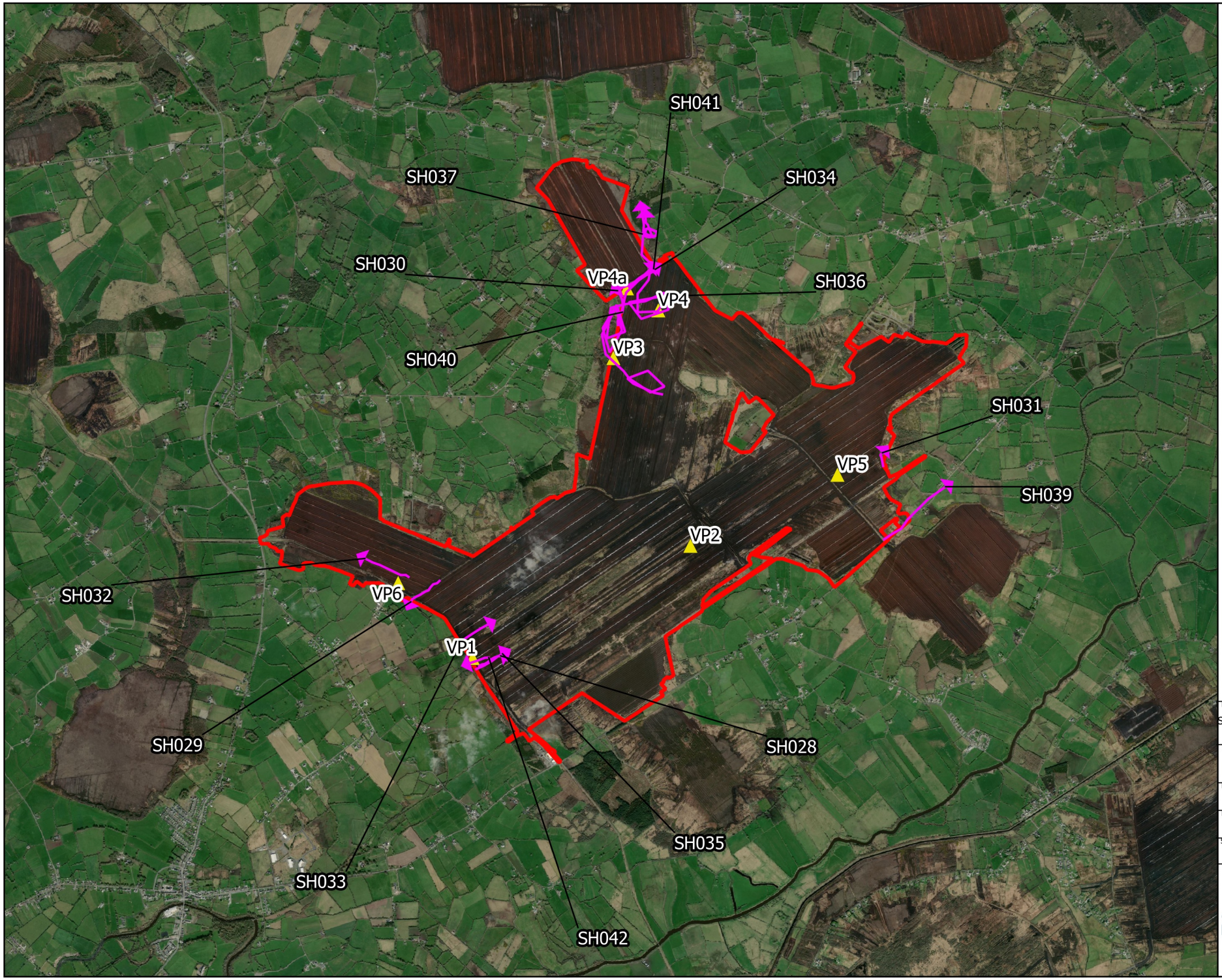
- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 18.1b
Scale: 1:45,000	Date: 17.07.2025

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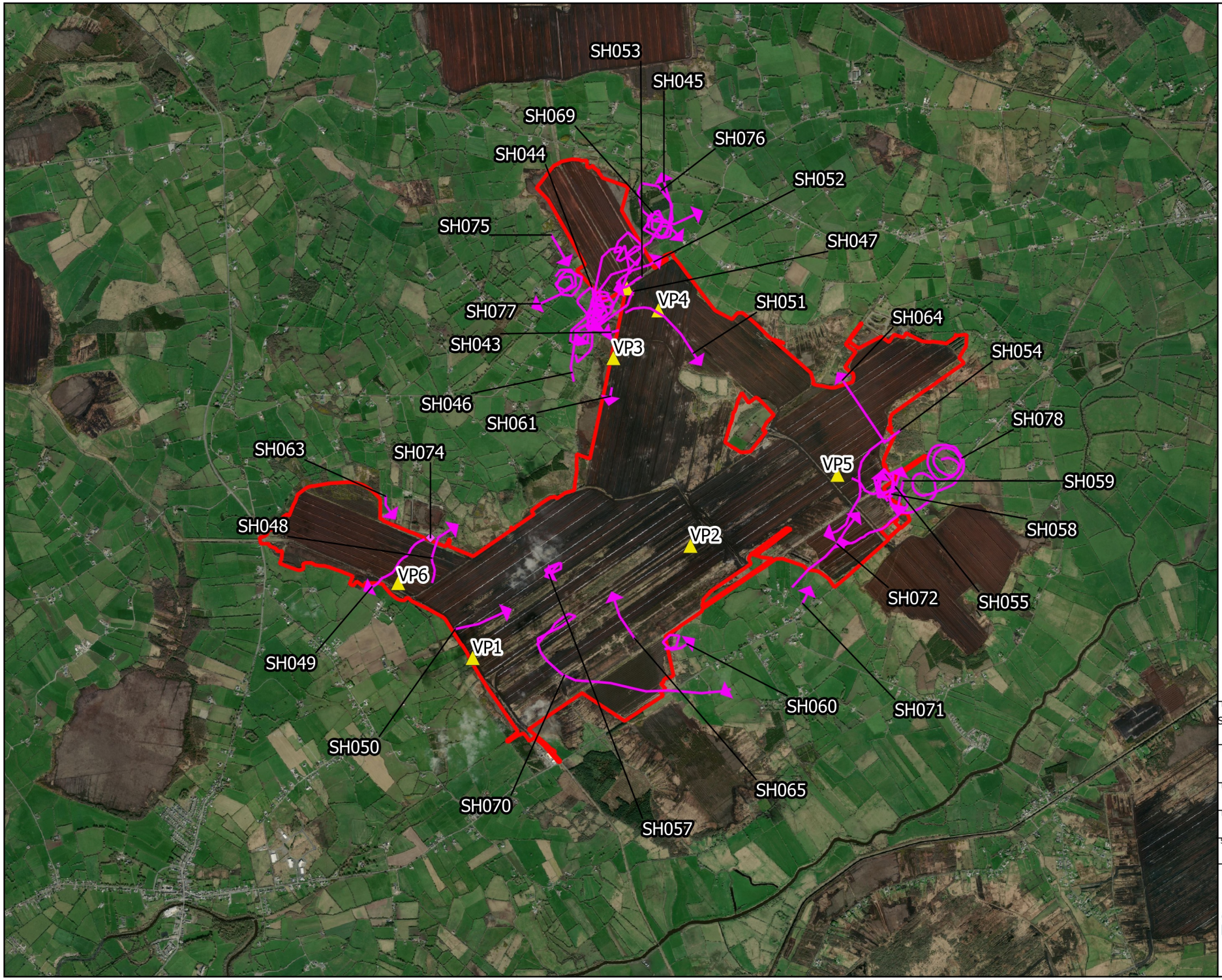
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- Application Site Boundary
- Vantage Point Locations
- Flight Observation

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Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 18.1c
Scale: 1:45,000	Date: 17.07.2025

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Map Legend

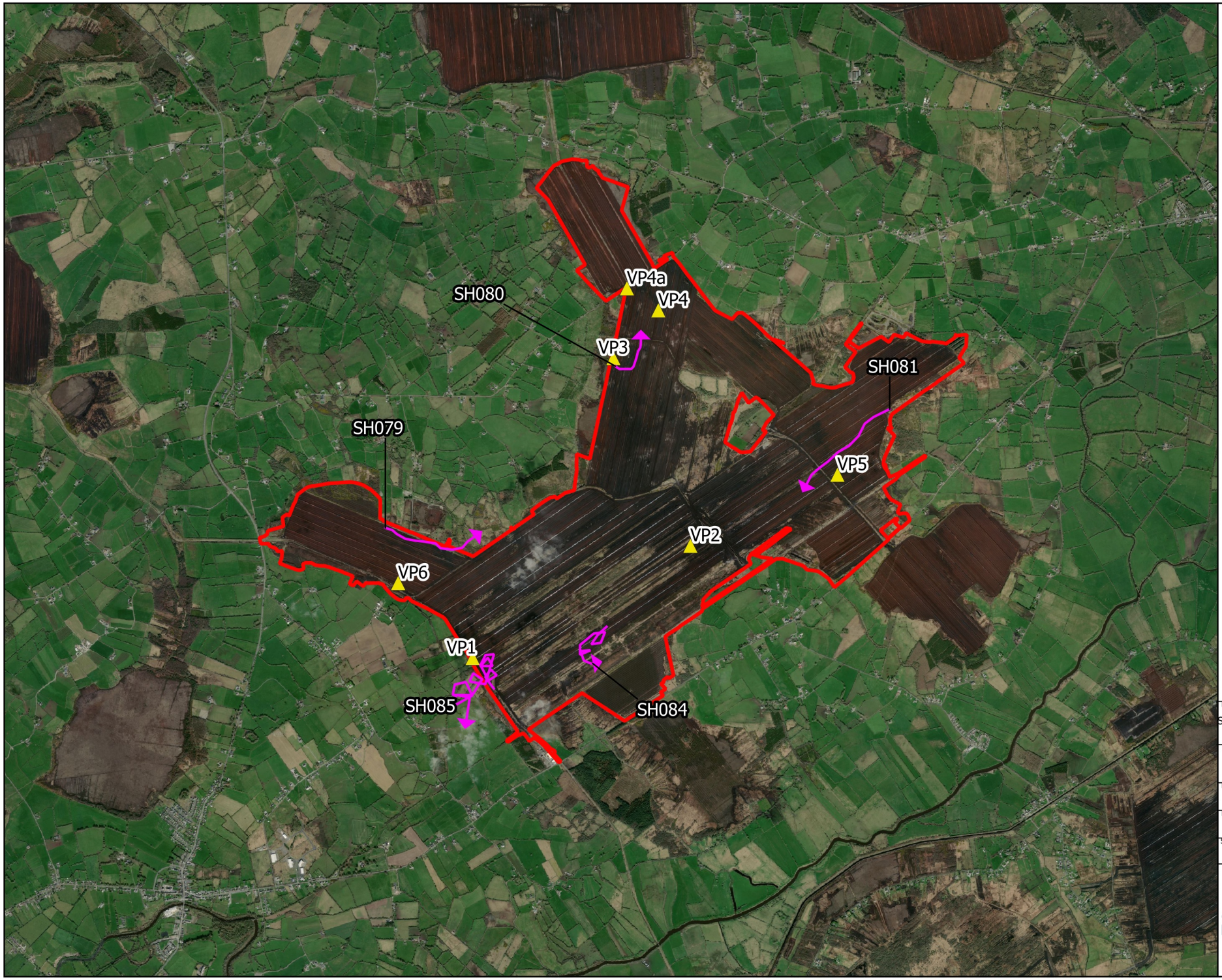
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- Vantage Point Locations
- Flight Observation
- Non-flight Observation

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Drawing Title	Sparrowhawk Observations Oct23-Sep24 Vantage Point Surveys
Project Title	Extraction in Lemanaghan Bog, Co. Offaly
Drawn By: DW	Checked By: PC
Project No.: 200804-e	Drawing No.: Fig. 18.1d
Scale: 1:45,000	Date: 17.07.2025

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Map Legend

Application Site Boundary

Vantage Point Locations

Flight Observation

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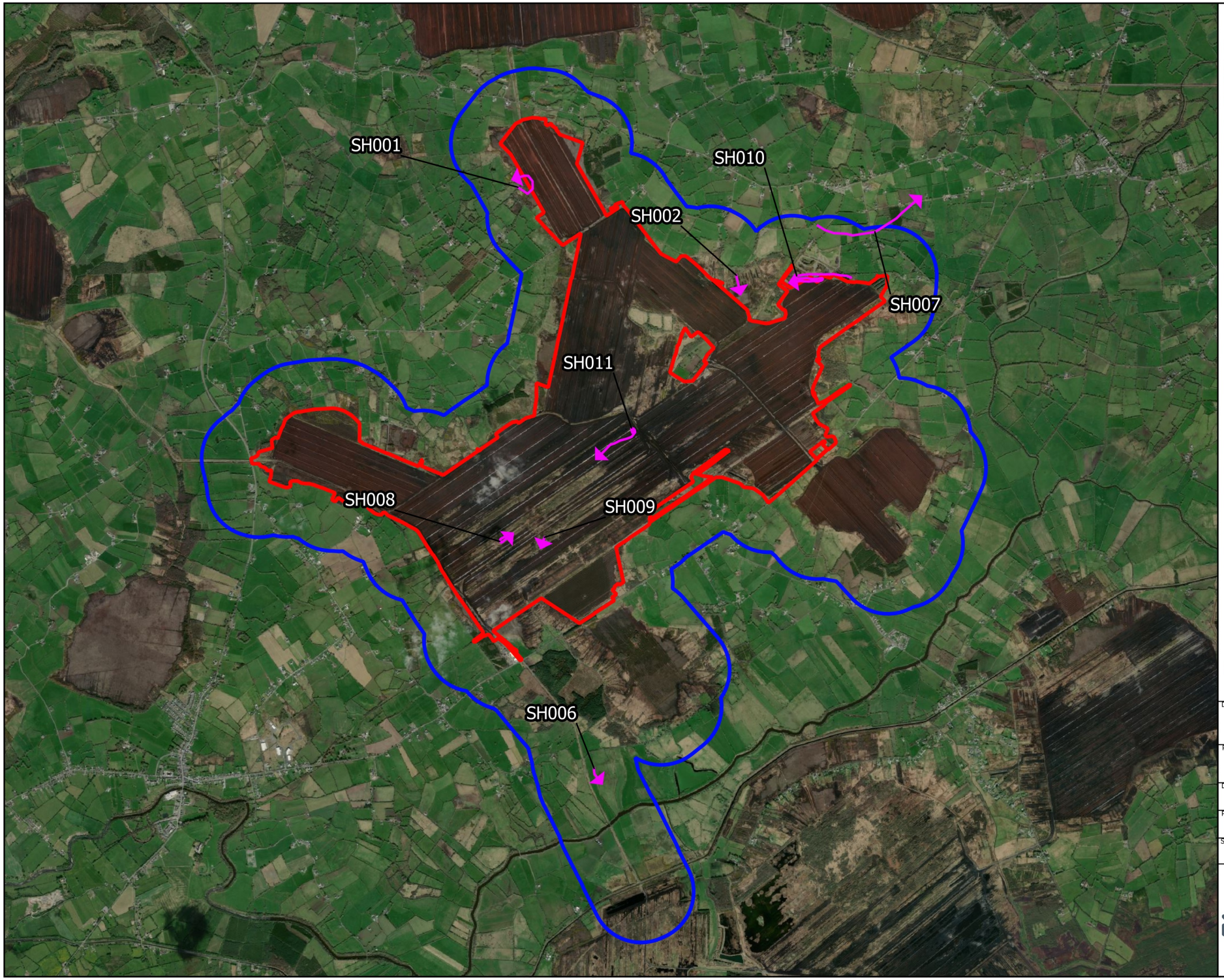
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Drawing Title: Sparrowhawk Observations Oct24-Mar25 Vantage Point Surveys

Project Title: Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.1e
Scale	Date
1:45,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

N

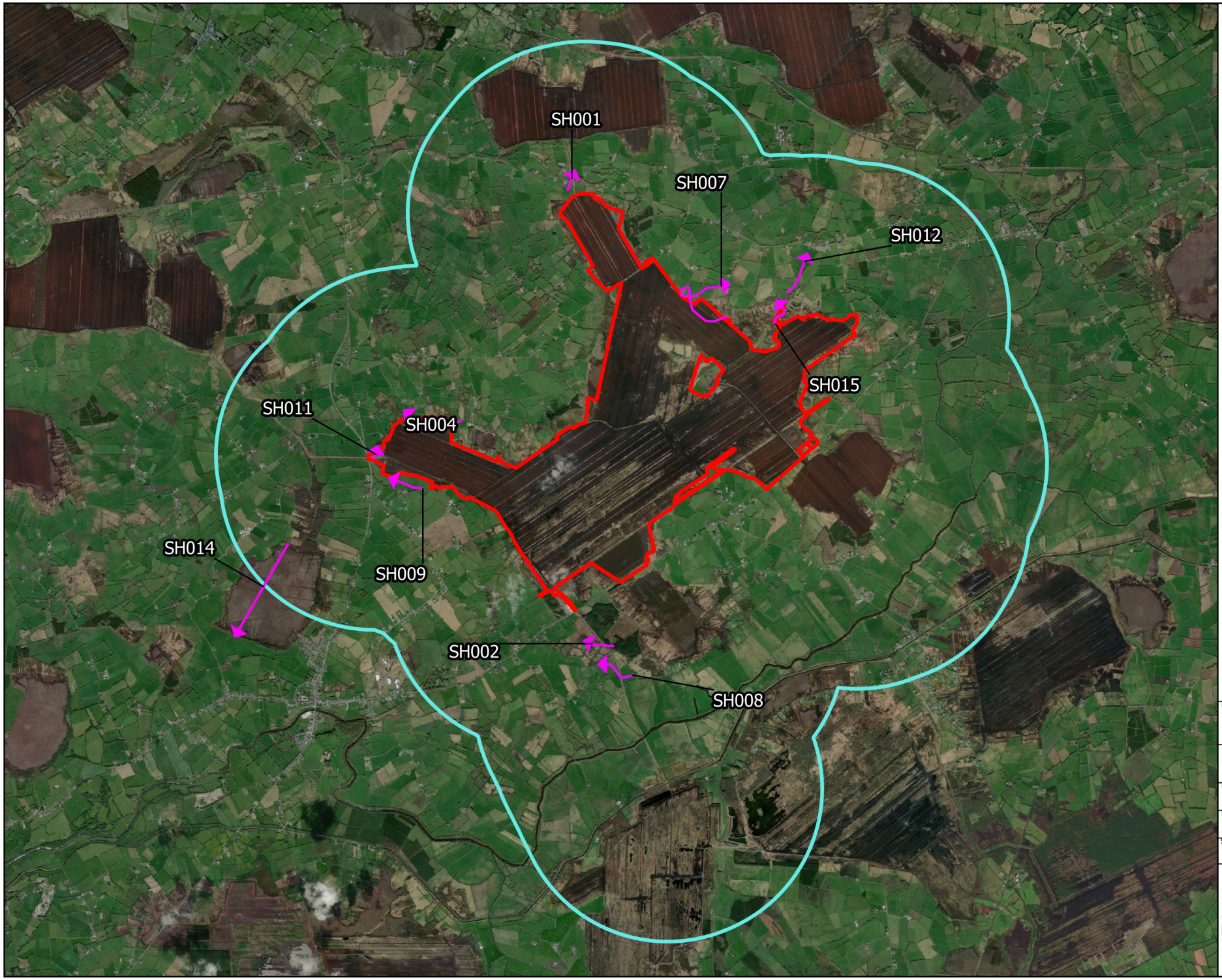
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Drawing Title
Sparrowhawk Observations
Breeding Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.2
Scale	Date
1:50,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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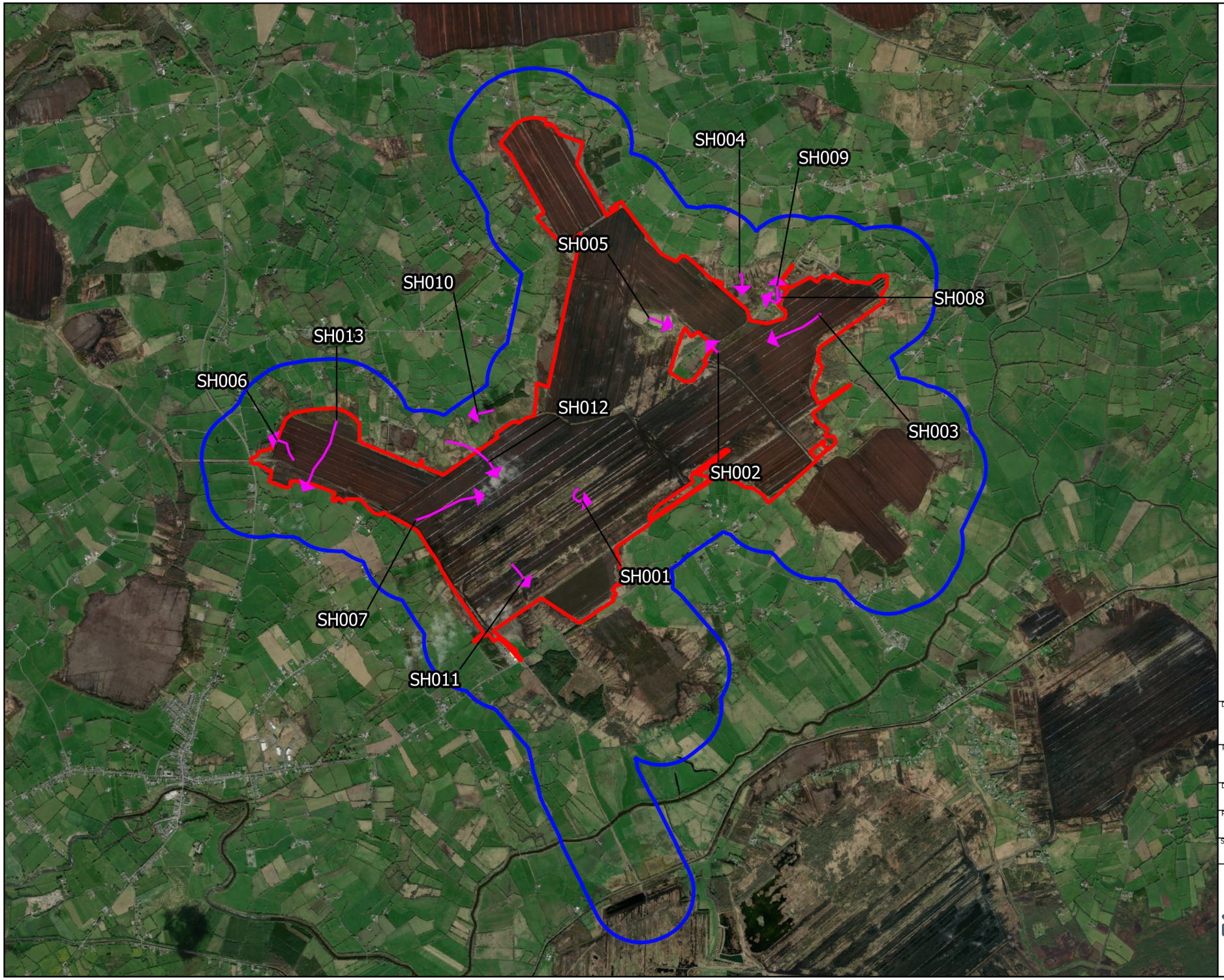
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Drawing Title
Sparrowhawk Observations
Breeding Raptor Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.3
Scale	Date
1:65,000	17.07.2025

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Map Legend

- Application Site Boundary
- Survey Area
- Flight Observation

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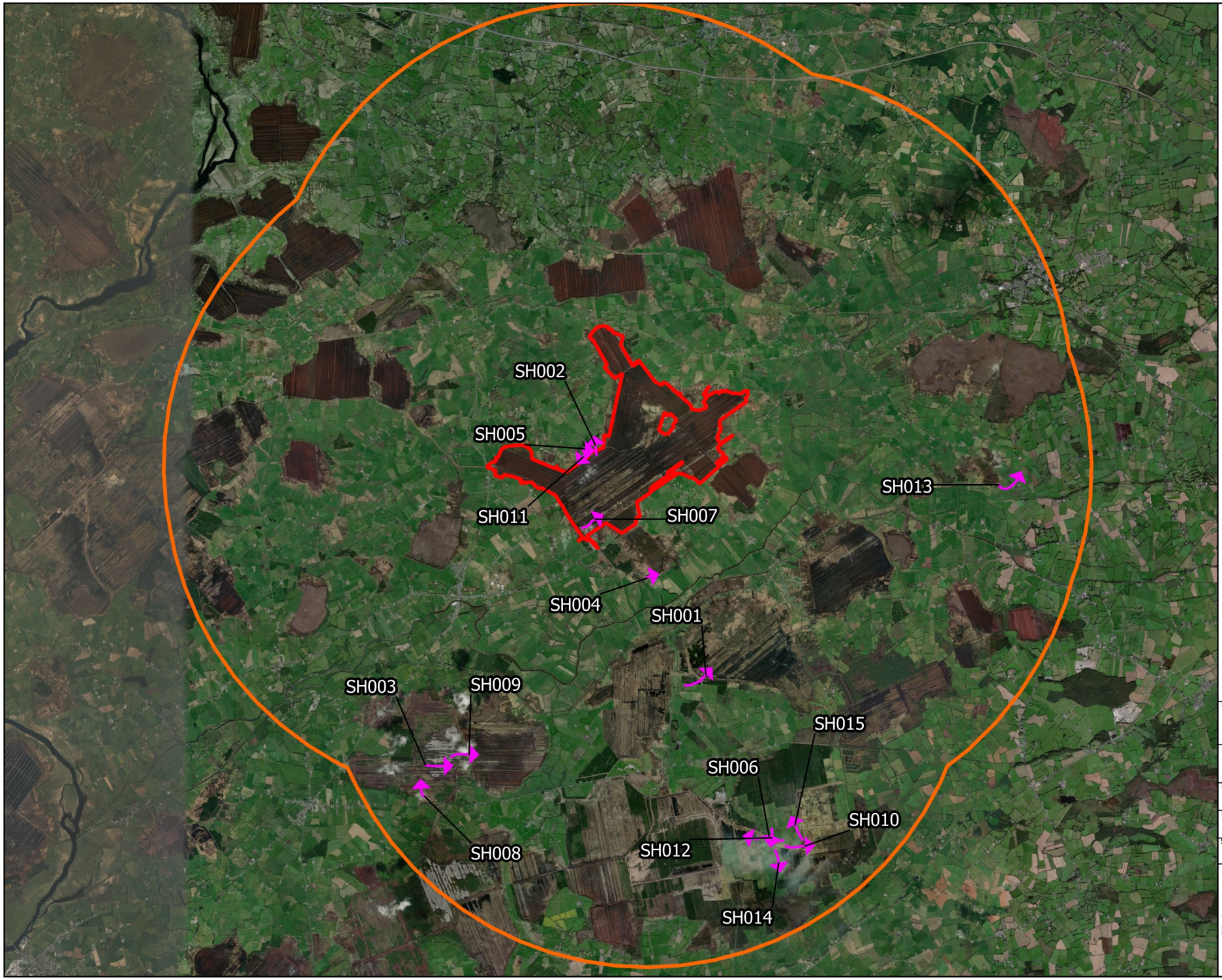
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Drawing Title
Sparrowhawk Observations
Winter Walkover Surveys

Project Title
Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.4
Scale	Date
1:50,000	17.07.2025

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Map Legend

Application Site Boundary

8km Survey Radius

Observation

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N

Drawing Title

Sparrowhawk
Incidental Records

Project Title

Extraction in Lemanaghan Bog, Co. Offaly

Drawn By	Checked By
DW	PC
Project No.	Drawing No.
200804-e	Fig. 18.5
Scale	Date
1:122,000	17.07.2025

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