

EDF Renewables Ireland

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Kellystown Wind Farm Ornithology Surveys: Year 2 Baseline Report

CONFIDENTIAL ANNEX

Appendix A8.3

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COMMERCIAL IN CONFIDENCE



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1. Introduction

This Confidential Annex to the Kellystown Wind Farm Year Environmental Impact Assessment has been produced to detail records relating to confidential breeding peregrine and detail the assessment of effects on this species. This species is considered confidential as it is listed on Annex I and is particularly susceptible to persecution, and therefore information which would disclose the nest site has been included within this document.

This annex should be treated as **confidential** and only shared if necessary. It should not be released into the public domain.

2. Baseline Survey Results

2.1 Peregrine Year 1 Survey Results

A nest site was identified in Kilsaran Quarry adjacent to the viable area, which fledged two young in 2022. Peregrine was recorded frequently during Breeding Raptor Surveys, with a total of 42 observations.

A total of 60 peregrine observations were recorded during Year 1 Vantage Point Surveys (VPS), with higher usage recorded during the breeding season, as detailed in Table 1 and Figure 8.3.1. Typically, single birds were recorded regularly foraging or commuting through the VPS Survey Area, with occasionally up to four birds observed simultaneously at fledging time.

Peregrine was also frequently recorded during Year 1 Breeding Raptor Surveys. Activity was concentrated around the nest site, and included foraging and commuting bids, as well as territorial behaviour including mobbing other birds near the nest. Records during Breeding Raptor Surveys are displayed on Figure 8.3.2.

2.2 Peregrine Year 2 Survey Results

Peregrine was recorded regularly during Breeding Raptor Surveys, with records of circling and hunting individuals during the majority of survey visits. A single breeding pair was identified within Kilsaran Quarry, and breeding success was confirmed when fledged juveniles were recorded. The breeding location, close to where a pair bred during the 2022 breeding season, is presented in Figure 8.3.3 and Figure 8.3.4.

Peregrine was also recorded frequently during VPS, with a total of 43 flights recorded and records during all survey months, except October. Peregrine flight activity was recorded most frequently within and immediately adjacent to Gallstown Quarry, where this species bred during Year 1 surveys. This pair was resident throughout the year. The majority of flights were of commuting or foraging birds. Throughout the year, the majority of flights recorded were

by single adult birds, however post-breeding, flights by the adult pair were recorded more regularly. Details of flight data recorded during VPS are outlined within Appendix 2 and presented in Figure 8.3.3 and Figure 8.3.4.

2.3 Peregrine Assessment of Effects

Potential Construction Effects

Peregrine was recorded breeding during both the 2021 and 2022 breeding seasons within the active Kilsaran quarry, with the nest site located within 500m of the proposed site infrastructure, and within 500m of the nearest turbine location. The nest location is shown on Figure 8.3.1. There is no alternative suitable nesting habitat within 500m of the proposed site infrastructure outside of the quarry.

Although the current nest site (and alternative suitable nesting habitat within the quarry) is within the species stated disturbance distance of 500m during the breeding season (Goodship and Furness, 2022), as the nest site is located within an active quarry, and construction activities will likely be partly screened due to the location of the nest. As the nest site is currently subject to disturbance of a much greater magnitude that is likely to arise during construction, it is considered that there would be no disturbance and/or displacement effects on peregrine during the construction phase.

Potential Operational Effects

Consistent with the assessment of disturbance and/or displacement effects during the construction phase, as the nest site is within an active quarry, turbines and infrastructure will be screened from view, and the nest site is currently subject to disturbance of a much greater magnitude that is likely to arise during the operational phase. Therefore, it is considered that there would be no disturbance and/or displacement effects on breeding peregrine during the operational phase.

Potential Cumulative Effects – Kilsaran Quarry Extension and Restoration

As the quarry extension is further from the peregrine nest site than the existing quarry, it is considered that construction effects would be of a lower magnitude than the existing disturbance effects arising from current quarry operations, and therefore no effect is predicted

If the proposed restoration plan was to reduce the available nesting habitat for peregrine, this would negatively impact this species and could result in displacement of the breeding pair. Given that it is not predicted that the Development have any disturbance and/or displacement effects on peregrine, it is not necessary to complete a cumulative assessment, as any impacts would result entirely from implementation of the restoration plan.

Appendix 1 Figures

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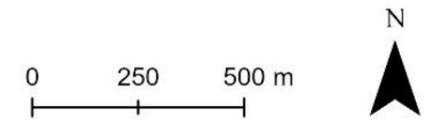


Kellystown Wind Farm
Project Title

Peregrine flight lines

Legend

- ▲ VPs
- 500 m turbine buffer
- Peregrine
 - Breeding season 2022
 - Non-breeding season 2021-22



Date	Drawn by	Checked by	Approved by
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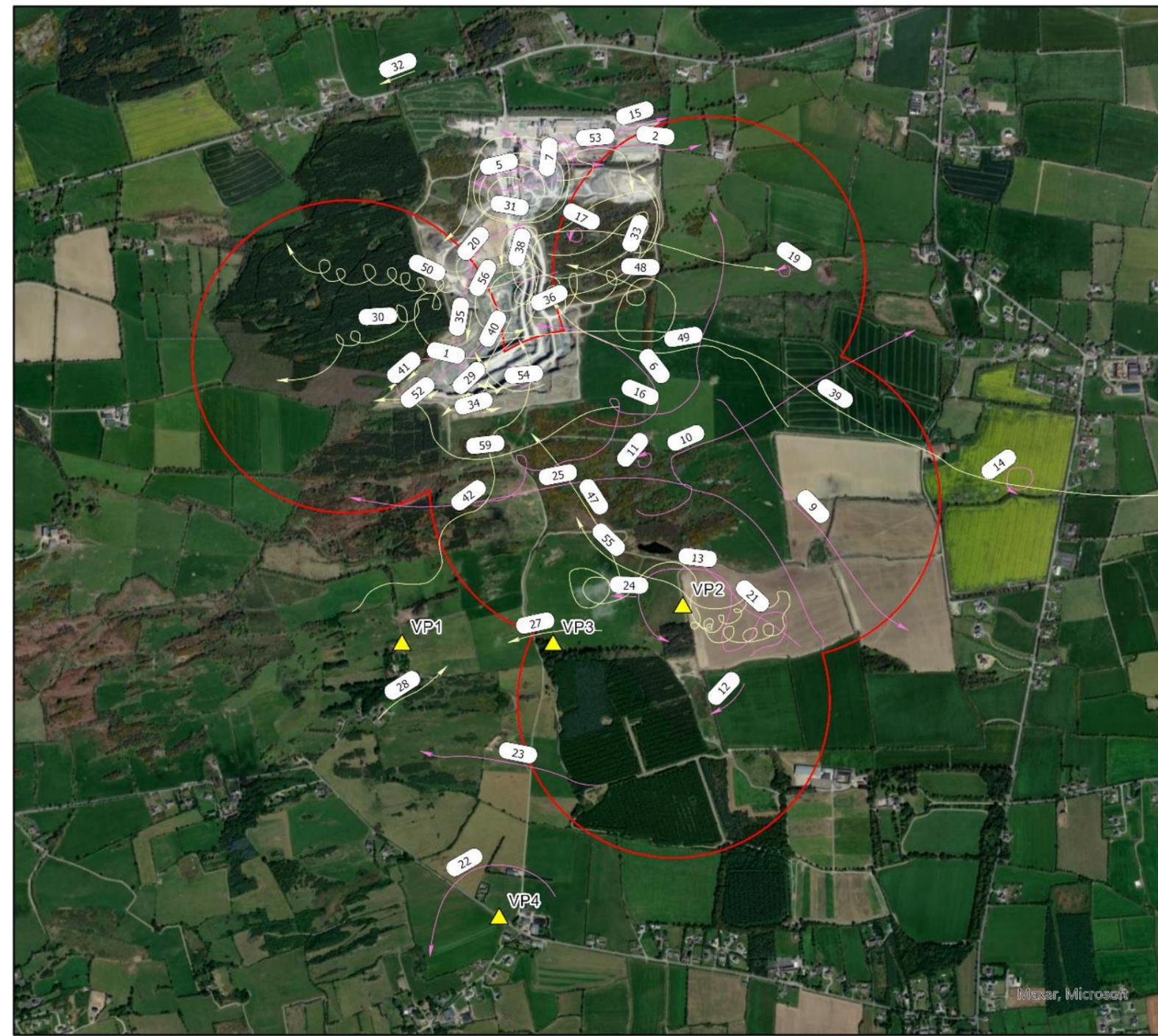


Figure 8.3.1. Peregrine Flights during Year 1 VPS



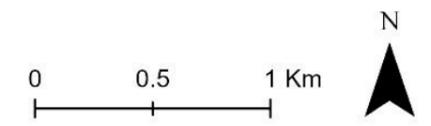
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Kellystown Wind Farm

Wider raptor surveys results

- Legend
- 500 m viable area buffer
 - 2km viable area buffer
 - Raptors flight lines
 - Buzzard
 - Kestrel
 - Peregrine
 - Sparrowhawk



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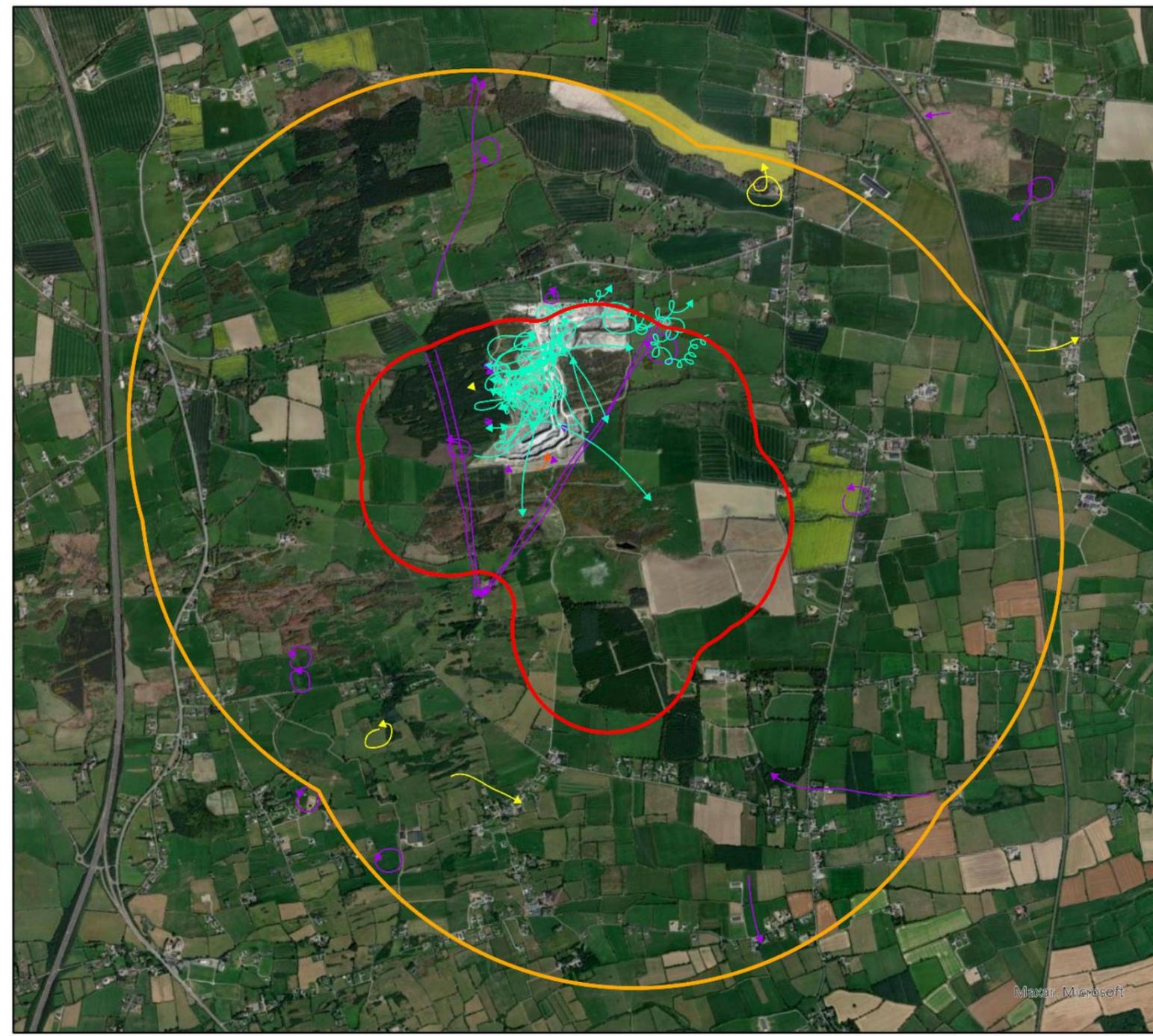


Figure 8.3.2. Year 1 Breeding Raptor Survey Records



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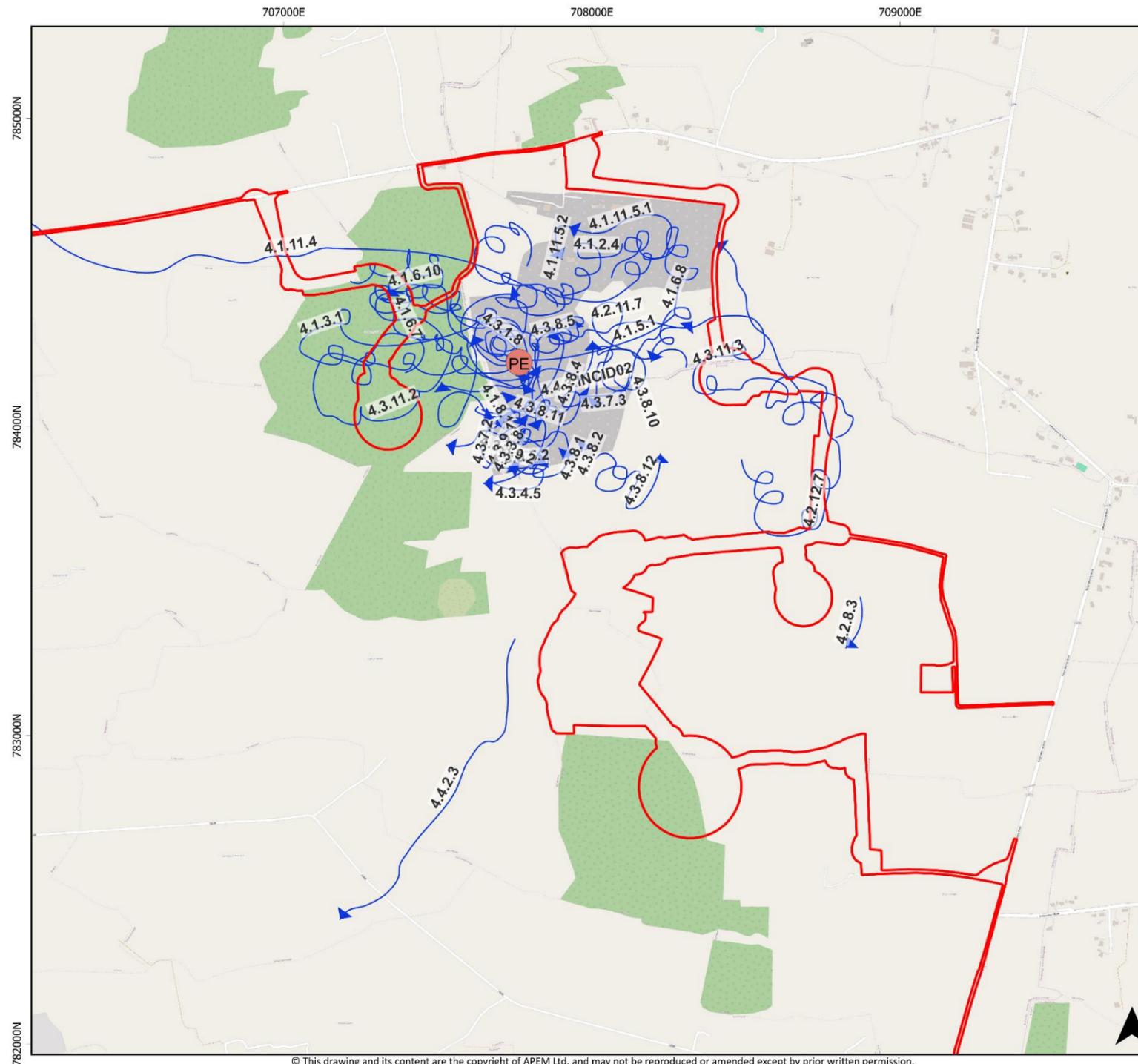
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P0013336

Flight Activity Survey Breeding Season:
Peregrine
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Legend

- Proposed Development Site Boundary
- Peregrine Breeding Territory
- Peregrine Flight Lines



Note:
Each flight line has been labelled with a unique ID number to allow for cross-referencing with data presented in the report.



Scale: 1: 17000 Date: 07/11/2024 Drawn by: GW

Coordinate System:
IRENET95 / Irish Transverse
Mercator



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Figure 8.3.3. Peregrine Flights during Year 2 VPS – Breeding Season



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Flight Activity Survey Non-Breeding
Season: Peregrine
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Legend

- Proposed Development Site Boundary
- Peregrine Breeding Territory
- Peregrine Flight Lines

Note:
Each flight line has been labelled with a unique ID number to allow for cross-referencing with data presented in the report.

0 0.4 0.8 1.2 km

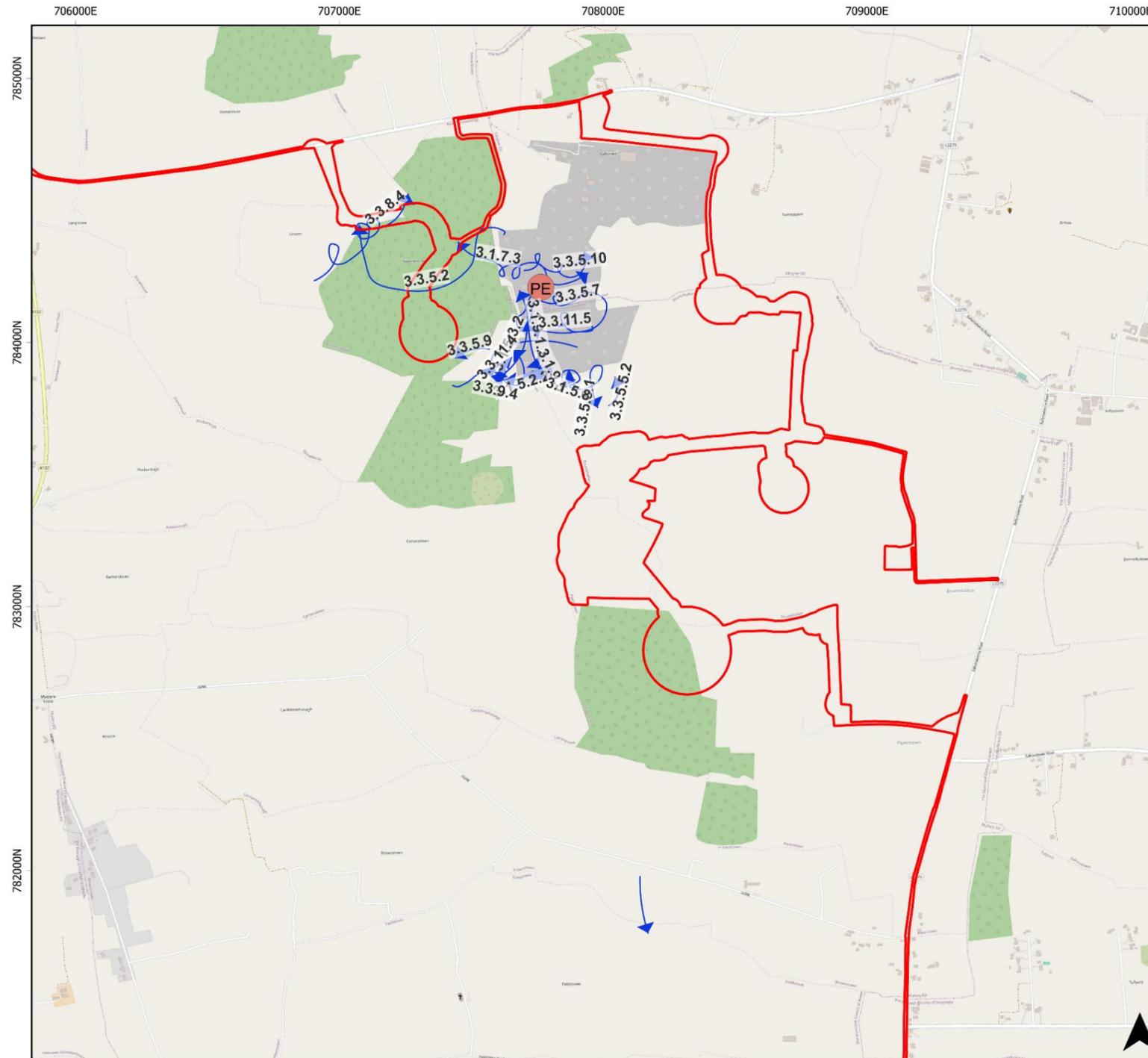
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Figure 8.3.4. Peregrine Flights during Year 2 VPS – Non-breeding season



Appendix 2 Details of Target Species flight lines recorded during Vantage Point Surveys

Flight records highlighted in light red were beyond the viewsheds for the VPs and will be excluded from the CRM. Observations of non-flight records, i.e. birds on the ground, perched or swimming are highlighted in light green.

Table 1 Details of non-confidential target species flight lines recorded during Year 1 VPS

Map ID	VP No	Date	Time	Sp. Name	No. of birds	Total seconds recorded	Height (m)	Flight range	Sex	Age	Behaviour	Comments
1	1	17/09/2021	718	Peregrine	1	55	30	25-35	M	Ad	Commuting	Dropped out of view
2	1	09/11/2021	1217	Peregrine	1	58	30	30-20-30			Flying	Flew over quarry, dived down behind, back up, circled and away E
3	1	01/12/2021	844	Peregrine	1	10	10	10-0			Flying	Flew into land on stone pile in quarry
4	1	01/12/2021	853	Peregrine	1	19	10	10-0			Flying	Flew up again and down over hill
5	1	02/02/2022	1200	Peregrine	1	10	20				Flying	Flying over quarry
6	1	07/02/2022	1040	Peregrine	1	60	30	40-10-40			Flying	Dived down at BZ, then flew back and landed in quarry
7	1	13/03/2022	1618	Peregrine	1	65	40	20-40-20			Flying	Flying about powerfully, the down into quarry
8	1	13/03/2022	1627	Peregrine	1	2	20				Flying	Brief view again, up over quarry and down
9	2	16/09/2021	1020	Peregrine	1	85	25	15-40-20	M	Ad	Hunting	
10	2	16/09/2021	1101	Peregrine	1	100	15	20-10-15	F	Juv	Hunting	
11	2	10/11/2021	1457	Peregrine	1	0	0				Perched	Perched, missed it depart
12	2	10/11/2021	1519	Peregrine	1	10	10				Flying	Flying low along field edge, calling
13	2	10/11/2021	1620	Peregrine	1	45	30	20-30			Flying	Perched in tree alongside field, flew out, circled field
14	2	16/11/2021	1101	Peregrine	1	25	30				Flying	Gliding, then swooped down
15	3	04/10/2021	1542	Peregrine	1	57	50	20-50			Hunting	Swooped down, back up and then away
16	3	23/09/2021	1747	Peregrine	1	105	50	40-60			Commuting	
17	3	10/11/2021	1300	Peregrine	1	0	0				Perched	Found at 12.20 perched on a dead tree
18	3	03/12/2021	1347	Peregrine	1	0	0				Perched	Perched on stones in quarry but didn't see it leave
19	3	03/12/2021	1430	Peregrine	1	0	0				Perched	On fence post for 45 minutes, missed it depart
20	3	07/03/2022	1023	Peregrine	1	140	20	20-10		Ad	Flying	Gliding and circling, quite low, dipped down into quarry
21	4	09/11/2021	1549	Peregrine	2	45	20				Flying	Flying low above treeline, 1 st carrying prey, 2 nd following behind
22	4	01/12/2021	1356	Peregrine	1	42	20	20-30			Flying	Flew right in front of VP, then S, very low over gull field
23	4	07/01/2022	1504	Peregrine	1	26	10				Flying	Flying low across fields, heading W
24	4	07/02/2022	1336	Peregrine	1	8	20				Flying	Flying W, carrying something

Map ID	VP No	Date	Time	Sp. Name	No. of birds	Total seconds recorded	Height (m)	Flight range	Sex	Age	Behaviour	Comments
25	4	07/03/2022	1308	Peregrine	1	120	80	30-80-20			Flying	Drifting, circling, then descended deliberately to quarry
26	1	20/04/2022	900	Peregrine	1	0	0	30-100			Perched	
27	3	19/04/2022	1640	Peregrine	1	15	30				Commuting	
28	4	28/03/2022	1315	Peregrine	1	18	20				Flying	Flying in direction to quarry
29	1	26/05/2022	1945	Peregrine	1	0	0				Perched	On a bank of gravel overlooking quarry within buffer
30	3	16/05/2022	1605	Peregrine	1	84	50	40-50			Flying	Seen above trees
31	1	29/06/2022	1245	Peregrine	2	157	90	20-90			Circling	Circling above the quarry. Lost into quarry
32	1	29/06/2022	1249	Peregrine	1	27	50				Flying	Lost behind conifers
33	1	29/06/2022	1255	Peregrine	1	0	0				Perched	Perched on spoil on top of quarry, within buffer
34	1	29/06/2022	1355	Peregrine	1	0	0				Perched	
35	1	11/07/2022	1100	Peregrine	2	5	5				Flying	Came up from the quarry
36	1	11/07/2022	1250	Peregrine	1	127	100				Circling	Circling around quarry
37	1	11/07/2022	1100	Peregrine	1	0	0				Perched	Perched on spoil at quarry within buffer
38	1	11/07/2022	1105	Peregrine	1	20	80				Flying	Flying around quarry. Landed on machinery
39	1	11/07/2022	1120	Peregrine	1	80	60				Flying	Flew E
40	1	11/07/2022	1135	Peregrine	1	17	50				Flying	
41	1	11/07/2022	1205	Peregrine	1	0	0				Perched	Flew at 1240 into quarry. Perched within buffer.
42	1	03/08/2022	1115	Peregrine	3	26	50	30-50			Flying	Lost in quarry
43	1	03/08/2022	1235	Peregrine	1	0	0				Perched	On top of spoil at quarry edge.
44	1	03/08/2022	1300	Peregrine	1	0	0				Perched	
45	1	03/08/2022	1355	Peregrine	1	0	0				Perched	Close to where ID 5 and 6 was.
46	1	03/08/2022	1630	Peregrine	2	0	0			Juv	Perched	Perched on spoil at quarry, 2 juvenile birds.
47	2	04/08/2022	1125	Peregrine	3	180	60	30-60			Hunting	Hunting large flock of racing pigeons. Went back towards quarry.
48	2	04/08/2022	1220	Peregrine	4	320	200	30-200			Circling	Dived down behind hill towards quarry.
49	2	04/08/2022	1250	Peregrine	3	36	40	20-40			Flying	Heading towards quarry.
50	3	22/07/2022	1130	Peregrine	1	123	180				Present	
51	3	22/07/2022	1150	Peregrine	1	0	0				Present	
52	3	22/07/2022	1220	Peregrine	1	0	0				Present	
53	3	04/08/2022	1355	Peregrine	1	40	60	50-60			Flying	Dropped back in quarry.
54	3	04/08/2022	1505	Peregrine	2	10	40	20-40			Hunting	In pursuit of Pidgeon at quarry, lost in quarry.
55	2	21/07/2022	1305	Peregrine	2	240	60				Present	
56	1	03/08/2022	1150	Peregrine	2	117	100	30-100			Circling	Lost into quarry
57	1	03/08/2022	1430	Peregrine	1	0	0				Perched	Perched behind thistles on spoil at quarry.

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Map ID	VP No	Date	Time	Sp. Name	No. of birds	Total seconds recorded	Height (m)	Flight range	Sex	Age	Behaviour	Comments
58	1	29/06/2022	1305	Peregrine	1	244	150	100-150			Circling	Circling quarry before heading E and remained perched for 200s
59	1	29/06/2022	1320	Peregrine	1	0	0				Perched	Perched. Not seen after 1335.
60	1	29/06/2022	1350	Peregrine	1	58	60	40-60			Circling	Circling over quarry. Lost into quarry.

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Table 2 Details of non-confidential target species flight lines recorded during Year 2 VPS

Species	Flight ID	Date	VP	Count	Time	Flight Duration	Height	Height Range	Sex	Age	Notes
Peregrine	3.1.5.2.2	09/11/2022	1	1	09:30	2	2	2			Joined with another peregrine
	3.1.5.3.2	09/11/2022	1	2	09:50	4	6	0-6			Lost behind conifers
	3.3.5.2	11/11/2022	3	1	13:05	41	60	30-60			Went below treeline
	3.3.5.5.1	11/11/2022	3	1	14:05	88	50	0-50			Landed on gravel heap
	3.3.5.5.2	11/11/2022	3	2	14:10	3	50	0-50			Went down into quarry
	3.3.5.7	11/11/2022	3	2	14:20	180	80	50-80			In and out of quarry
	3.3.5.9	11/11/2022	3	1	14:50	5	2	0-2			At edge of quarry. Didn't see leave. Not there at 15:00
	3.3.5.10	11/11/2022	3	2	15:00	45	60	50-60			In and out of quarry
	3.1.7.3	05/12/2022	1	1	11:20	27	30	20-30			Dipped below treeline
	3.1.9.1.2	06/01/2023	1	1	10:05	4	5	0-5			Flew from gravel heap, lost behind trees.
	3.3.8.4	09/01/2023	3	1	11:00	55	80	30-80			Went below tree line.
	3.3.9.4	16/01/2023	3	1	13:20	14	10	10			Went into quarry
	3.3.11.4	10/02/2023	3	1	15:10	27	70	40-70			Gliding along quarry. Dived into quarry
	3.3.11.5	10/02/2023	3	1	15:15	6	70	40-70			Gliding along quarry. Dived into quarry
	4.3.1.8	22/03/2023	3	1	17:20	8	50	50			Flew into quarry
	4.4.2.3	02/04/2023	4	1	09:10	35	50	50			Direct flight
	4.1.2.4	10/04/2023	1	2	13:40	444	200	50-200			Circling together at quarry. Dived below tree line
	4.1.3.1	11/04/2023	1	1	12:10	311	80	0-80			Circling and landed on edge of quarry. Gone at 12:25. Didn't see leave.
	4.3.3.8	13/04/2023	3	1	11:25	18	50	40-50			Flying just above quarry. Lost into quarry
	4.1.5.1	12/05/2023	1	1	10:20	442	150	50-150			Flying/circling above quarry. Lost to view
4.3.4.5	16/05/2023	3	1	11:48	330	20	20-30-20		Ad	Flying back and forth a bit before dropping into quarry	
4.1.6.7	07/06/2023	1	2	11:10	81	80	40-80			Hunting. Unsuccessful predation of woodpigeon	

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Species	Flight ID	Date	VP	Count	Time	Flight Duration	Height	Height Range	Sex	Age	Notes
	4.1.6.8	07/06/2023	1	2	11:20	420	120	20-120			Hunting. Attacked buzzard. Attacked a flock of pigeons, chasing one into quarry
	4.1.6.10	07/06/2023	1	2	11:35	88	50	40-50			Above trees. Lost below treeline.
	4.3.7.2	13/06/2023	3	1	13:30	30	70	40-70			Circling before chasing woodpigeon into quarry
	4.3.7.3	13/06/2023	3	1	13:45	8	15	15			Chasing woodpigeons, went into quarry
	4.2.8.3	03/07/2023	2	1	11:55	15	80	80			Harassing buzzard. Lost to view, flew quickly away.
	4.3.8.4	27/07/2023	3	2	11:05	81	120	5-120			Two flying together, one went low to quarry edge, lost sight of other
	4.3.8.5	27/07/2023	3	2	11:25	51	100	50-100			Two circling went down onto quarry
	4.3.8.9.2	27/07/2023	3	1	12:15	14	8	0-8			Flew and landed back at same spot
	4.3.8.10	27/07/2023	3	3	12:25	119	150	50-150			Three circling at different heights. Followed one into quarry, lost to view. Other two lost into quarry
	4.3.8.11	27/07/2023	3	3	12:30	110	60	50-60			Circling around quarry dipping in and out.
	4.3.8.12	27/07/2023	3	2	12:40	74	60	15-60			Flying together interacting. Both went into dive low and lost behind hill
	4.3.9.1	27/07/2023	3	1	14:25	42	60	50-60			Lost into quarry
	4.3.9.2	27/07/2023	3	2	15:15	228	100	50-100			Two circling quarry, after 40s one went into quarry, other circled north-east then flew strongly
	4.3.9.5.2	27/07/2023	3	1	16:20	2	1	0-1		Juvenile	Flew short distance and landed again.
	4.2.11.7	09/08/2023	2	1	11:55	30	50	30-50			Flew up above gorse as flock of pigeons passed. Presumably hunting, lost behind gorse
	4.3.11.2	10/08/2023	3	2	11:15	254	60	20-60			Circling together, lost into quarry
	4.3.11.3	10/08/2023	3	2	11:40	118	70	10-70			Circling, then direct flight into quarry
	4.1.11.4	22/08/2023	1	1	18:40	55	50	30-50			Flew west from quarry, lost behind trees
	4.1.11.5.1	22/08/2023	1	1	18:55	74	60	30-60			Flying around quarry, landed on machinery

Species	Flight ID	Date	VP	Count	Time	Flight Duration	Height	Height Range	Sex	Age	Notes
	4.1.11.5. 2	22/08/2023	1	1	19:35	2	30	20-30			Dropped down into quarry, lost into quarry
	4.2.12.7	04/09/2023	2	1	11:05	141	60	20-60			Then flying low north-west

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