

Or	You believe the terms of a Development Contribution Scheme or Supplementary Development Contribution Scheme have not been properly applied by the planning authority, so conditions have been applied in error to a decision.	
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Third Party appeals

Appeals on the decision of a planning authority on a proposed development other than the person or organisation who made the original planning application.

<u>Planning appeal</u>		Fee
A9	You made an observation or submission to the planning authority on an application, and you now want to appeal the decision of the planning authority.	€220

Leave to appeal

<u>Leave to appeal</u>		Fee
A10	You would like to apply for leave to appeal the planning authority's decision.	€110
A11	You submitted a leave to appeal request to An Bord Pleanála. The Board has granted your request. You now are submitting your appeal following this decision.	€110

Reduced appeal fee

<u>Reduced appeal fee</u>		Fee
A12	You are on the list of organisations that qualify for a reduced appeal fee (see the list).	€110

Observation on an appeal

<u>Observation</u>		Fee
A13	You want to make an observation on a planning appeal which is currently with An Bord Pleanála.	€50
A14	You are on the list of organisations that qualify for a reduced fee (see the list) and you want to make an observation on a planning appeal which is currently with An Bord Pleanála.	No fee

Submission on a copy of an appeal or appeal documents sent to you by An Bord Pleanála

<u>Submission on a copy of an appeal or appeal documents sent to you by An Bord Pleanála</u>		Fee
A15	An Bord Pleanála has sent you a copy of an appeal or appeal documents and has invited you to make a submission on the appeal. You want to make a submission.	No fee

Oral hearing request

Oral hearing request		Fee
A16	You want to request that An Bord Pleanála holds an oral hearing on a planning appeal.	€50

Other appeals under the Planning and Developments Acts

Appeal against the making of a draft planning scheme in a sub-regional development plan (S17)		Fee
A17	You want to make an appeal against the making of a draft planning scheme in an SDZ.	€220

Appeal on a licensing decision for an appliance, apparatus, structure, cable or other matter on a public road		Fee
A18	You want to make an appeal on a licensing decision for an appliance, apparatus, structure, cable, street furniture or other matter on a public road (section 254 licence).	€220

Other appeals under the Planning and Development Acts		Fee
A19	You want to make an appeal on a matter that has not been described here.	Please contact us.

Referrals

Referrals		Fee
R1	You want to refer a declaration made by a planning authority on a question that was put to the planning authority.	€220
R2	A planning authority wants to refer a question put to the planning authority.	€110
R3	You and a planning authority are unable to agree on points of detail concerning a grant of permission, so you want to refer it to An Bord Pleanála.	€220
R4	All other referrals except for a referral under section 5(8).	€220
R5	You are a person or organisation that qualifies for a reduced fee (see the list) and you want to refer a matter under type R1, R3 or R4.	€110
R6	A referral under section 5(8) of the Planning and Development Acts	No fee

Substitute consent

Substitute consent under section 5(8) of the Planning and Development Acts		Fee
		€3,000

		set aside by a Court decision, there is no fee.
SC2	You want to apply for substitute consent.	Same application fee as would be paid to planning authority.
SC3	You want to request an oral hearing under section 177Q.	€50

[Back to contents](#)

Scoping an EIAR

Q1	You want An Bord Pleanála to scope an EIAR.	€5,000
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[Back to contents](#)

Submission of an EIAR or NIS following a request from An Bord Pleanála

P1	You are submitting an EIAR following a request from us.	€1,500
P2	You are submitting an NIS following a request from us and it relates to a proposed commercial development.	€1,500
P3	You are submitting an NIS following a request from us and it does not relate to a proposed commercial development.	€220

Organisations or individuals who pay reduced fees on appeals or referrals, and no fees on observations or submissions

(a) A local or planning authority

(b) A body referred to in article 28 or 137 of the Planning and Development Regulations 2001, as amended, for example:

- A local or planning authority
- Certain ministers of Government
- An Chomhairle Ealaíon
- Fáilte Ireland
- Shannon Free Airport Company Limited
- An Taisce
- The Heritage Council
- A regional authority
- Inland Fisheries Ireland
- Waterways Ireland
- Irish Aviation Authority
- An airport operator
- CIÉ
- Commission for Railway Regulation
- Transport Infrastructure Ireland (TII)
- National Transport Authority
- Environmental Protection Agency (EPA)

- Health Service Executive (HSE)
 - Commission for Regulation of Utilities
 - Údarás na Gaeltachta
 - The Health and Safety Authority (HSA)
 - Irish Water
 - (c) The Royal Irish Academy
 - (d) A State authority, for example:
 - A minister of the Government
 - The Commissioners of Public Works (OPW)
 - (e) A Transboundary State that is a member of the European Union other than Ireland or a party to the Transboundary Convention.
 - (f) A development agency, for example:
 - The Industrial Development Agency (Ireland)
 - Enterprise Ireland
 - The Shannon Free Airport Development Company Limited
 - Údarás na Gaeltachta
 - The National Building Agency
 - The Grangegorman Development Agency
 - A local authority
 - (g) Any other person prescribed by the Minister for the purposes of Part IX of the Planning and Development Act 2000¹
- ¹ Section 169 of the Planning and Development Act 2000 covers the making of planning schemes for strategic development zones. Under article 179 of the Planning and Development Regulations 2001, a regional authority whose area includes a draft strategic development zone planning scheme and a planning or local authority whose area is within or adjacent to the strategic development zone site(s) are designated as prescribed authorities for section 169 of the Planning and Development Acts.

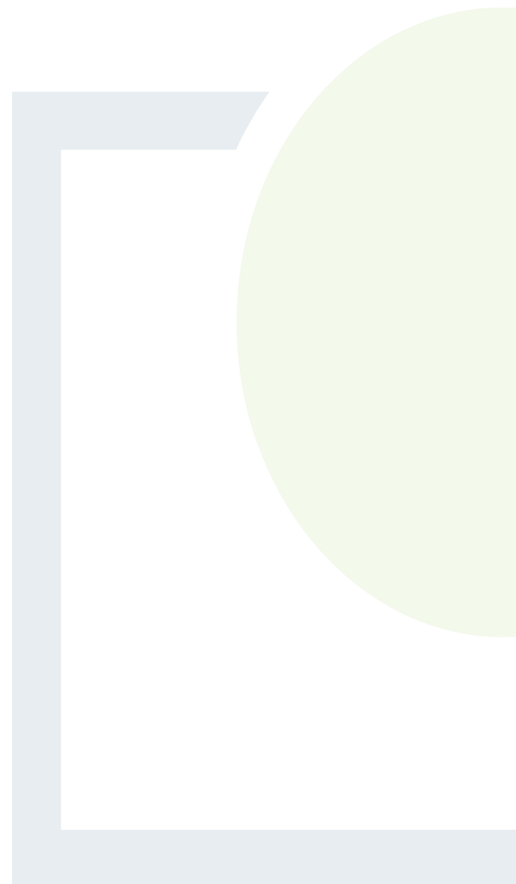
❖ **Note-** The An Bord Pleanála above information is included by Cork County Council with planning decisions for information purposes only and you are advised to contact An Bord Pleanála directly with regard to queries about the appeals process, costs, timelines etc.

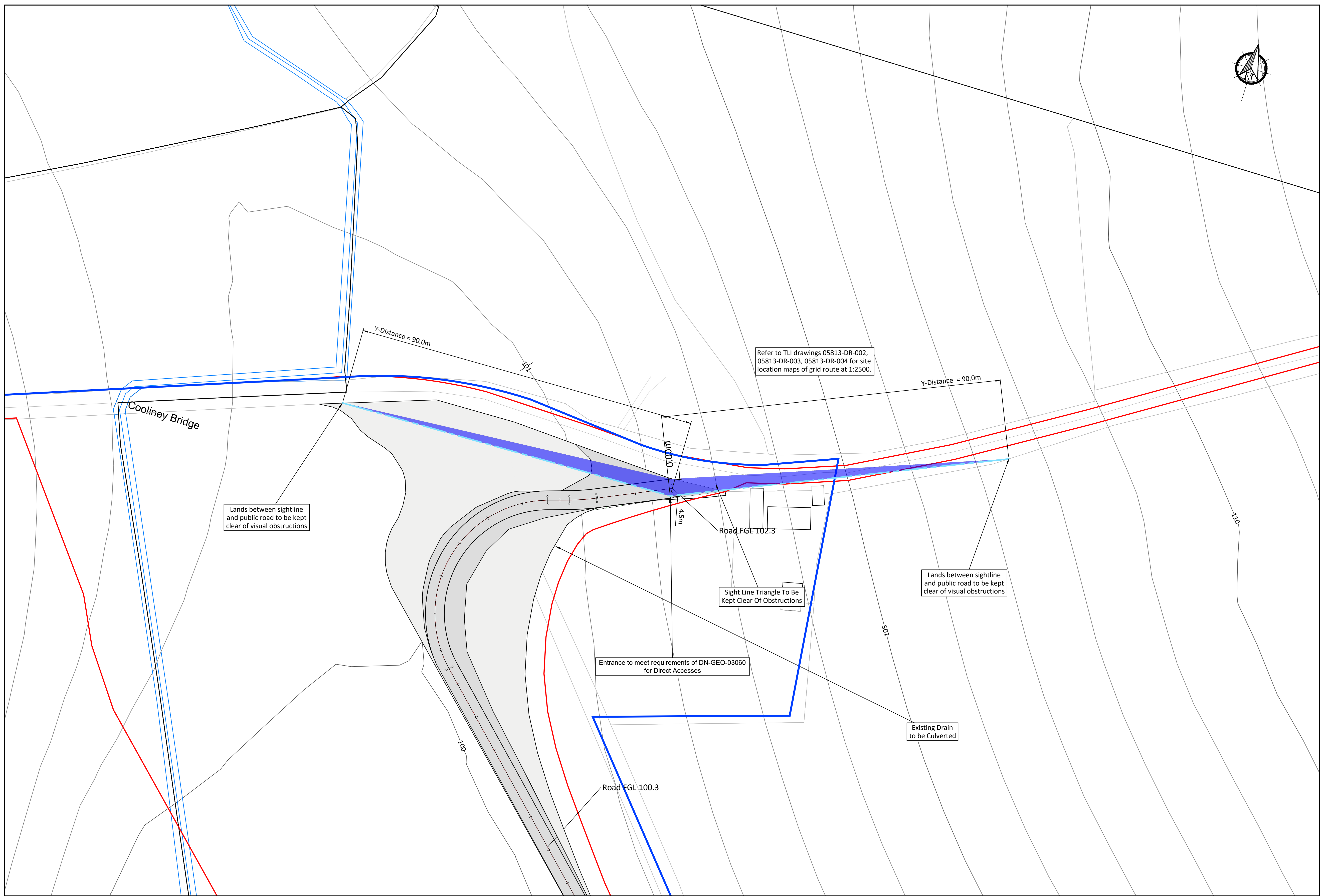


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APPENDIX 2

Drawing Showing Site Entrance
Details and Sightlines





Legend

Planning Boundary

Property Boundary

Proposed Wind Farm Access Track

Existing Road To Be Upgraded

Passing Bays

Turning Areas

Turbine And Hardstanding Areas

Private Electrical Network Cable Route

Indicative Buried Grid Connection Cable Route

Temporary Compound Area

Substation Compound

Indicative Location of Roadside Swale

Cross Drain

Indicative Interceptor Ditch With Diffuse Outflow

Stilling Pond With Diffuse Outflow

Roadside Drain

Interceptor Ditch

Diverted Drain

Culvert

Sight Lines

0.00m

Road Chainage

Wayleave

Temporary hard standing for the construction phase only, to be used for oversized vehicles associated with turbine component deliveries. To be fenced off when not in use. To be fully reinstated following the construction phase of the project.

Refer to drawings P2359-0100-0014 to P2359-0100-0019 for all 1:500 turbine and hardstand layouts.

- Notes:
1.

Proposed entrance to meet the requirements of TII Design Standard DN-GEO-03060 for geometric design of direct accesses.
2.

Temporary hard standing to facilitate delivery of oversized vehicles associated with turbine components only. To be fenced off when not in use.
3.

Temporary portion of bellmouth hard standing to be fully reinstated to preexisting conditions following the construction stage. Proposed internal road drainage to be adjusted to match arrangement for the operational phase.
4.

Flag man to be present during delivery of oversized turbine components to the site.
5.

Site access to be fenced off when not in use.

If Applicable : Ordnance Survey Ireland Licence No. EN 0001220 © Ordnance Survey Ireland and Government of Ireland 50148975

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Cork | Dublin | Carlow

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Rev.	Description	App By	Date
A	PLANNING	JH	24.11.21
B	PLANNING	JH	07.09.22

PROJECT	ANNAGH WIND FARM EIAR		CLIENT			EMPOWER		
SHEET	SITE LAYOUT - PROPOSED SITE ENTRANCE		Date	24.11.21	Project number	P2359	Scale (@ A1-)	
			Drawn by	POR	Drawing Number			Rev
			Checked by	TB	P2359-0103-0011			B

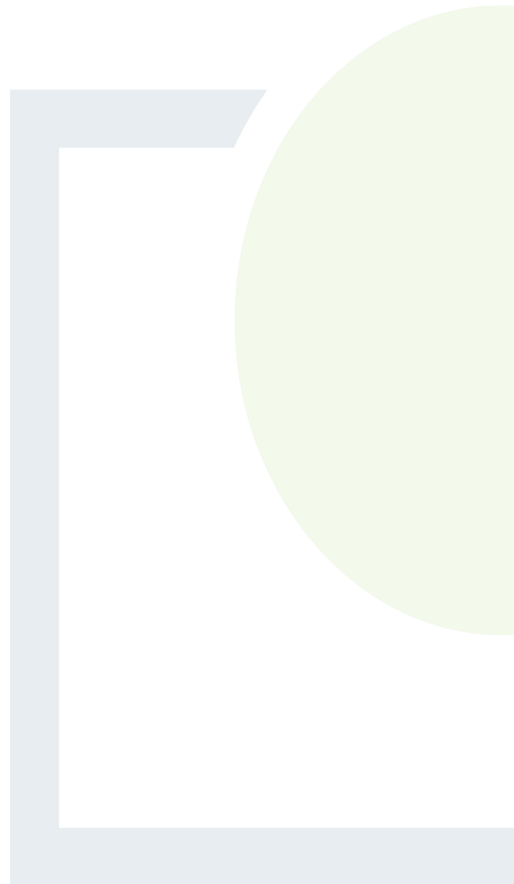
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CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

APPENDIX 3

Addendum to Natura Impact
Statement





CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

PROPOSED ANNAGH WIND FARM

NATURA IMPACT STATEMENT ADDENDUM

Prepared for:

EMPower



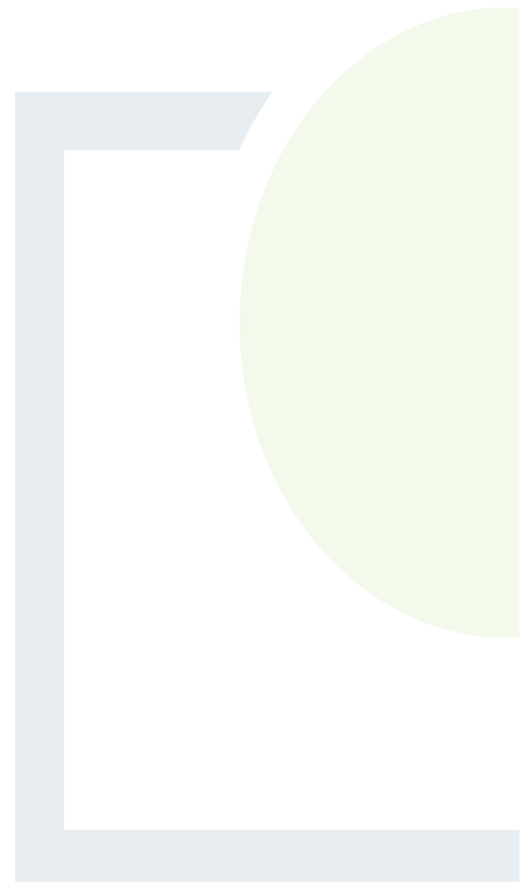
Date: January 2023

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CORK | DUBLIN | CARLOW

www.fehilytimoney.ie



Natura Impact Statement Addendum

REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

User is responsible for Checking the Revision Status of This Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
A	Draft for Client Review	BOD/MG	JK	JH	26/01/2023

Client: EMPower

Keywords: Annagh, Wind Farm, NIS, Natura Impact Statement, Addendum, Whooper Swan, Interconnector, Solar Farm, Coolcaum, Fiddane, Ballyroe, Kilcolman Bog SPA, Blackwater River (Cork/Waterford) SAC, In-combination effects

Abstract: This report comprises an addendum to the Annagh Wind Farm NIS to consider the potential for likely significant in-combination effects to occur in conjunction with the proposed Fiddane solar farm to Coolcaum solar farm/Ballyroe solar farm interconnector cable.

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1. INTRODUCTION	1
2. INTERCONNECTOR CABLE DESCRIPTION	2
3. POTENTIAL FOR IN-COMBINATION EFFECTS	3
4. MITIGATION.....	4
5. CONCLUSION.....	5



1. INTRODUCTION

A planning application for an interconnector cable between the consented Fiddane, Coolcaum and Ballyroe solar farms (Planning ref. 225933) located north-west and south-east of the proposed Annagh wind farm was lodged with Cork Co. Council after the proposed Annagh wind farm NIS was submitted. As such, this addendum examines the potential for in combination effects to occur in conjunction with this proposed interconnector cable.



2. INTERCONNECTOR CABLE DESCRIPTION

The proposed interconnector cable exits the consented Fiddane solar farm to the north of Annagh wind farm and travels north-east underground until c. 15m west of the Oakfront River. At this point it emerges to be carried as an overhead line until c. 15m beyond the opposite (eastern) bank for the Oakfront, where it re-enters the ground and traverses the proposed Annagh wind farm site as an underground cable, crossing mixed broadleaved/conifer plantation woodland north of the proposed T01 turbine. On exiting the woodland and Annagh wind farm site, the cable emerges above ground again and is carried as an overhead line running south-east through pastureland for c. 1 km until it meets the un-named local road to the south. From this point the cable runs south-west for c. 0.6 km under the local road before turning south-east to traverse farm tracks and agricultural fields through the consented Coolcaum solar farm. At the Ballyroe connection point, the cable emerges again and is carried over the Rathnacally stream as an overhead line before terminating in the consented Ballyroe solar farm. Another short section of overhead line running parallel to this section connecting Ballyroe solar farm to the adjacent consented Coolcaum solar farm is also proposed.

The main overhead section of the cable route (1 km overhead section described above) is located east of the proposed Annagh wind farm. The north-western end is c. 105m east of T01, while the south-eastern end is c. 575m from T03.

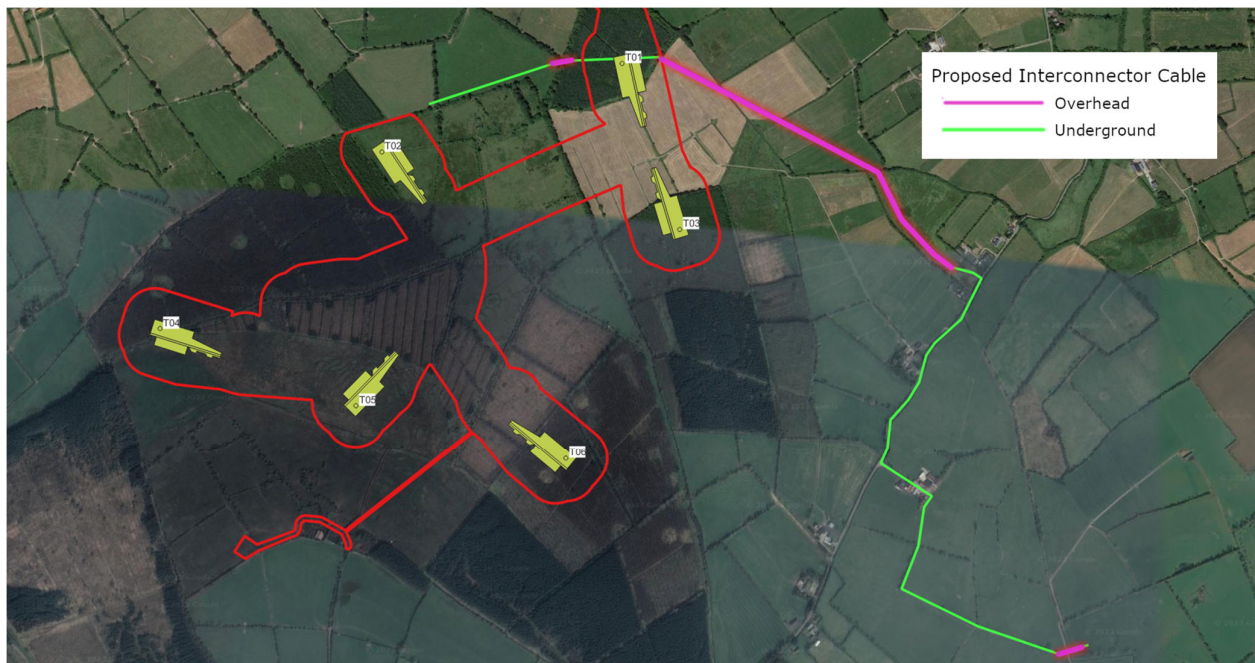


Plate 2-1: Annagh wind farm and proposed interconnector cable



3. POTENTIAL FOR IN-COMBINATION EFFECTS

The NIS for the proposed interconnector cable identified the potential for likely significant effects on aquatic qualifying interests (QIs) in the Blackwater River (Cork/Waterford) SAC (specifically, watercourses with *Ranunculus fluitans* and *Callitriche-Batrachion* vegetation, salmon, white-clawed crayfish, otter, brook lamprey, river lamprey and sea lamprey) and proposes mitigation measures to avoid these effects.

The proposed interconnector cable runs near, and traverses drains and rivers/streams draining the proposed Annagh wind farm and grid connection.

Prior to mitigation, there is potential for likely significant effects on the Blackwater River (Cork/Waterford) SAC to occur in-combination with the proposed interconnector cable.

Regarding potential in-combination effects on Kilcolman Bog SPA, there is potential for likely significant effects prior to mitigation due to the combined collision risk posed by the proposed Annagh wind farm and the proposed interconnector cable. The NIS for the proposed interconnector cable does not specify mitigation to avoid or reduce collision risk.



4. MITIGATION

When the mitigation measures specified for the proposed Annagh wind farm and the proposed interconnector cable are considered, significant effects including in-combination effects on the Blackwater River (Cork/Waterford) SAC are unlikely to occur. Mitigation measures to avoid likely significant effects are detailed in Section 4.4 of the Annagh wind farm NIS.

The proposed mitigation for Annagh wind farm includes extensive curtailment during the migration seasons to avoid impacts to whooper swan associated with Kilcolman Bog SPA (see Section 3.11 of the Annagh Wind Farm First Party Appeal). The proposed curtailment is in line with NPWS recommendations on avoiding impacts to whooper swans occurring in the area of the proposed Annagh wind farm.

The proposed seasonal curtailment mitigation is detailed below:

'From the first year of operation of the turbines, curtailment will be applied between dawn and dusk, from 15 September to 15 December, and between 21 February and 15 April. Data from a Supervisory Control and Data Acquisition (SCADA) system, or its equivalent, showing compliance with this condition shall be made available to the planning authority and the National Parks & Wildlife Service and an annual report detailing the results of this monitoring provided.'

Annual monitoring shall be carried out during the operational phase of the wind farm for years 1, 2, 3, 5, 7, 10, 15, 20, 25 and 30 to monitor the efficacy of the measure and to refine the extent of these curtailment periods. This monitoring shall account for annual variation in migration patterns and ensure that curtailment is targeted to the key period of movement for the species, with the curtailment period revised accordingly in agreement with the planning authority and NPWS. In addition, targeted corpse searches, based on best-practice and using dogs trained for the purpose, will be carried out during the curtailment period. An annual report (for years 1, 2, 3, 5, 7, 10, 15, 20, 25 and 30) detailing the results of this monitoring shall be submitted to the planning authority and the National Parks & Wildlife Service.'



5. CONCLUSION

Following mitigation, no in-combination effects on European sites arising from construction, operation and decommissioning of the proposed Annagh wind farm in conjunction with the proposed interconnector cable are anticipated.



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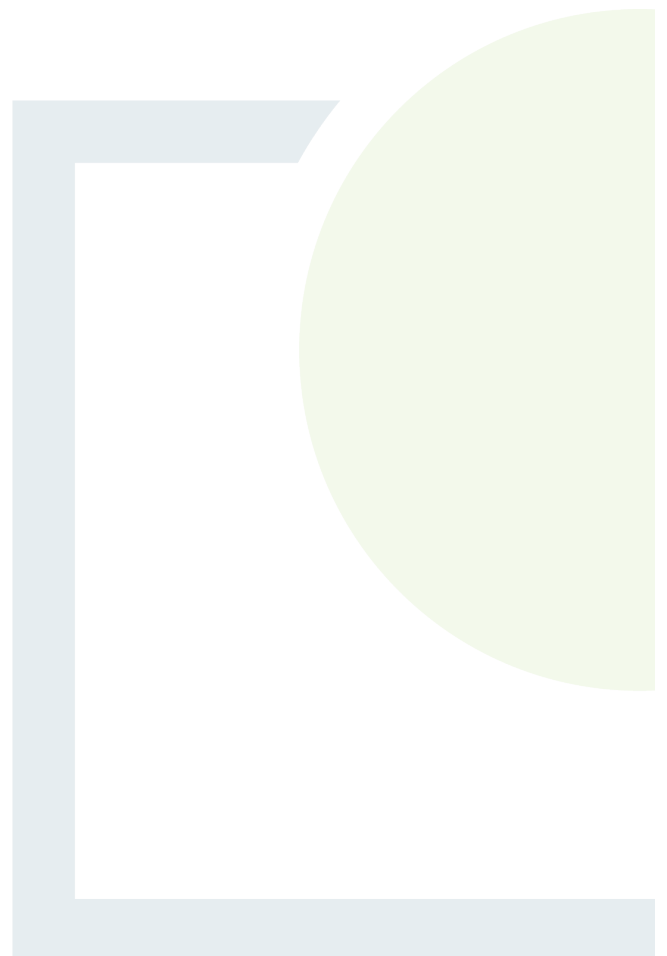




DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 4

S132 Responses



An Coimisiún Pleanála,
64 Marlborough Street,
Dublin 1,
D01 V902



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

02 July 2025

Our Ref: 25-180-FT-EN-XX-LT-EN-0001

Re: Case Number 322439-25 Section 132 Response
Construction of 6 no. wind turbines, turbine foundations and crane pad hardstanding areas, new site tracks and associated drainage infrastructure and all associated infrastructure, services and site works. Application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement. Annagh North, Coolcaum, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, Co. Cork.

Dear Sir/Madam,

Fehily Timoney and Company (FT), on behalf of the applicant (Annagh Wind Farm Limited), are responding to correspondence received from An Coimisiún dated 05 June 2025 in relation to the above-mentioned remitted appeal. Three letters were received, which stated that the Board (now An Coimisiún) has examined the appeal and is of the opinion that certain information is necessary for the purpose of enabling it to determine the appeal.

We are providing one response letter to each of the letters received by An Coimisiún, below, we have provided our response to 'letter 1'.

Letter 1

Letter 1 is appended to this response letter (Appendix 1). The letter stated:

In accordance with section 132 of the Planning and Development Act, 2000, (as amended), you are required to submit, on or before 2nd July 2025, the following:

Details in relation to whether there are any further material differences aside from the two discrepancies identified in the letter from Fehily Timoney to the Board, dated 28th August 2023 in the EIAR or any other documentation.

Upon receipt of this information revised notices may be required.

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Pouladuff Road,
Cork, T12 D773.

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Directors: Sinéad Timoney | Bernadette Guinan | Jim Hughes | Ray O'Dwyer
Company Secretary: Dave O'Regan

Registered in Ireland, Fehily Timoney & Company Ltd, Number 180497
Registered Office: Core House, Pouladuff Road, Cork, Ireland.
VAT Registration Number: IE6580497D



Response

FT can confirm that all differences between the hard copy and soft copy of that chapter were identified by FT. In particular, FT identified two substantive discrepancies which in our opinion would be material in nature, as detailed in our correspondence dated 28th August 2023.

We note that the Inspector's Report on this appeal case states that the Inspector's assessment of the appeal was based on the "hard copy documentation received by Cork County Council". The Inspector therefore has based the assessment on the correct version.

For the avoidance of doubt, and in the case that the Commission are minded to circulate a copy of the chapter to third parties for an opportunity to make submissions, we attach herewith a soft copy of the Chapter 8, which aligns with the hard copy version the Inspector has assessed.

If you should require any further information, please do not hesitate to contact the undersigned.

Yours sincerely,



Brian Cronin

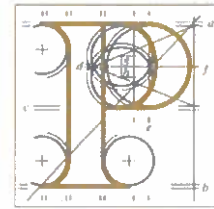
for and on behalf of **Fehily Timoney and Company**

Encl Appendix 1

Our Case Number: ABP-322439-25

Planning Authority Reference Number: 217246

Your Reference: Annagh Wind Farm Limited



An
Bord
Pleanála

FEHILY TIMONEY & Co.

Distribution

09 JUN 2025

Job No:

Correspondence No: 6

Comment:

Fehily Timoney
Core House
Pouladuff Road
Cork
T12 D773

Date: 05 June 2025

Re: Construction of 6 no. wind turbines, turbine foundations and crane pad hardstanding areas, new site tracks and associated drainage infrastructure and all associated infrastructure, services and site works. Application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement.

Annagh North, Coolcaum, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, Co. Cork.

Dear Sir / Madam,

I have been asked by An Bord Pleanála to refer to the above-mentioned appeal.

The Board has examined the appeal and is of the opinion that certain information is necessary for the purpose of enabling it to determine the appeal.

In accordance with section 132 of the Planning and Development Act, 2000, (as amended), you are required to submit, on or before **2nd July 2025**, the following:

- **Details in relation to whether there are any further material differences aside from the two discrepancies identified in the letter from Fehily Timoney to the Board, dated 28th August 2023 in the EIAR or any other documentation.**

Upon receipt of this information revised notices may be required

If the details required are not received before the end of the specified period, the Board will dismiss or otherwise determine the appeal without further notice to you in accordance with section 133 of the 2000 Act, (as amended). Your submission in response to this notice must be received by the Board not later than **5.30p.m. on the date specified above.**

Teil
Glao Áitiúil
Facs
Láithreán Gréasáin
Ríomhphost

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Baile Átha Cliath 1
D01 V902

64 Marlborough Street
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Please quote the above appeal reference number in any further correspondence.

Yours faithfully,



Dáire Littleton Caden
Executive Officer
Direct Line: 01-8737

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DESIGNING AND DELIVERING
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26 June 2025

Our Ref: 25-180-FT-EN-XX-LT-EN-0002

Re: Case Number 322439-25 - Section 131 Response

Construction of 6 no. wind turbines, turbine foundations and crane pad hardstanding areas, new site tracks and associated drainage infrastructure and all associated infrastructure, services and site works. Application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement. Annagh North, Coolcaum, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, Co. Cork.

Dear Sir/Madam,

Fehily Timoney and Company (FT), on behalf of the applicant (Annagh Wind Farm Limited), are responding to correspondence received from An Coimisiún dated 05 June 2025 in relation to the above-mentioned appeal. Three letters were received stated that the Board (now An Coimisiún) has examined the remitted appeal and is of the opinion that certain information is necessary for the purpose of enabling it to determine the appeal.

We are providing one response letter to each of the letters received by An Coimisiún, below, we have provided our response to 'letter 2'.

Letter 2

Letter 2 is appended to this response letter as Appendix 1. The letter stated:

Having regard to the High Court Order, the quashing of the previous Board decision and the passage of time, the Board considers that it is appropriate in the interests of justice to now request you under section 131 of the Planning and Development Act 2000, to make any further general submissions/observations you may have on the planning application the subject of this appeal.

In addition, the Board invites comment on the following documents:

- RePowerEU (the EU 2022/2577 Regulation to accelerate the deployment of renewable energy).
- Climate Action Plan 2025

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Directors: Sinéad Timoney | Bernadette Guinan | Jim Hughes | Ray O'Dwyer
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Registered in Ireland, Fehily Timoney & Company Ltd, Number 180497
Registered Office: Core House, Pouladuff Road, Cork, Ireland.
VAT Registration Number: IE6580497D



Response:**1.0 Introduction**

Since the submission of the original planning application and first party appeal there has been significant development in European and national climate and energy policy and legislation which binds the State to deliver on renewable energy targets.

The Commission has respectfully requested a submission on RePowerEU and the Climate Action Plan 2025 (CAP). To do so effectively, it is essential to examine the relevant policy and legislative frameworks underpinning both RePowerEU and the CAP to demonstrate the hierarchical nature of same in the context of planning assessment.

It is further submitted that the policy framework and, in particular, the obligation to act consistently with the Commission's obligations for the purposes of the Climate Acts 2015-2021 creates a strong presumption in favour of granting permission. This presumption should only be rebutted by the most compelling countervailing considerations, specifically those arising under Environmental Impact Assessment (EIA) or Appropriate Assessment (AA). In this case, no such counter-considerations have been identified in the EIAR and AA submitted with the application.

1.1 RePowerEU and other relevant EU Policy.

There have been two critical pieces of European legislation which has a significant impact on how the Competent Authority should have regard to National Climate and Energy Policy in the context of assessing this project pursuant to Section 37(1) of the Planning & Development Act 2000 (as amended).

Council Regulation 2022/2577¹ represents an obligation on EU Member States to accelerate renewable energy projects such as this one as a matter of urgency, the deployment of which is viewed as vitally important to the achievement of the EU's strategic objectives. As per Article 10 of the Regulations the Regulation is "*binding in its entirety and directly applicable in all Member States*".

Significantly, the Regulation incorporates and makes clear that renewable energy projects enjoy a **rebuttable presumption** that they are of overriding public interest and serving public health and safety, in particular, for the purposes of the relevant Union environmental legislation, except where there is clear evidence that these projects have major adverse effects on the environment which cannot be mitigated or compensated for.

The Regulation is of critical importance to the Commission's decision. It makes clear that the Commission must take as its starting assumption that Annagh Wind Farm is of overriding public interest and contributes to public health and safety. Although the Commission retains a discretion, the threshold for refusal of a grant of planning permission is therefore extremely high.

Permission can only be refused if the Commission is satisfied that there are significant counter-vailing factors that are sufficient to rebut the presumption.

¹ <https://eur-lex.europa.eu/eli/reg/2022/2577/oj>

The Fit for 55 package² included a Commission proposal to revise the Renewable Energy Directive (EU) 2018/2001. This proposal was further updated in May 2022 as Part of the REPower EU Plan and subsequently endorsed by EU ambassadors (COREPER) on the 27th September 2023³, and came into force in November 2023.

RED II⁴ set a binding overall Union target to reach a share of at least 32% of energy from renewable sources in the Union's gross final consumption of energy by 2030. The text that has been adopted by the European Parliament and endorsed by COREPER increases this target to 42.5 %. This target is now captured in RED III.

Additionally, the Directive obliges EU Member States to *“collectively endeavour to increase the share of energy from renewable sources in the Union’s gross final consumption of energy in 2030 to 45 %”*⁵

The associated recital (Recital 5) included in the final agreed text provides useful context:

“The REPowerEU Plan set out in the Commission communication of 18 May 2022 (the ‘REPowerEU Plan’) aims to make the Union independent from Russian fossil fuels well before 2030. That communication provides for the front-loading of wind and solar energy, increasing the average deployment rate of such energy as well as for additional renewable energy capacity by 2030 to accommodate the higher production of renewable fuels of non-biological origin..... In that context, **it is appropriate to increase the overall Union renewable energy target to 42,5% in order to significantly accelerate the current pace of deployment of renewable energy, thereby accelerating the phase-out of the Union’s dependence on Russian fossil fuels** by increasing the availability of affordable, secure and sustainable energy in the Union. **Beyond that mandatory level, Member States should endeavour to collectively achieve an overall Union renewable energy target of 45 % in line with the REPowerEU Plan.”**

This indicates a significant increase in the mandatory targets for renewable energy in the EU, aiming for a more sustainable and independent energy system, with signals of further increasing ambition through the 45% stretch target. This increased ambition for renewable energy at an EU level must be accommodated and addressed in member states Climate Action Plans.

The RED III directive also includes specific observations and measures related to the accelerated deployment of renewable energy, storage and grid infrastructure projects across EU member states these include:

- Specific areas, suitable for developing renewable energy projects should be designated as ‘renewables acceleration areas’.
- The process of designation of these renewables acceleration areas should be streamlined.
- Projects in renewables acceleration areas should benefit from streamlined administrative permit-granting procedures.

² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0557>

³ https://www.europarl.europa.eu/doceo/document/TA-9-2023-0303_EN.html

⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001>

⁵ Article 3, paragraph 1.

- The designation of renewables acceleration areas should not prevent the installation of renewable energy projects in all available areas.

The Directive came into force in November 2023 and Member States have 18 months to transpose its provisions into national law. While this transposition period is still ongoing, the Directive already provides clear and authoritative policy support at the European level. It is therefore appropriate for the **Commission to apply and/or have regard to the same**. The Directive is highly relevant for three reasons.

Firstly, it envisages and requires a step-change in terms of the immediacy and ambition for renewable energy development across the Member States, without which the Union's climate neutrality objective simply cannot be achieved.

Secondly, it identifies the social and environmental benefits of renewable energy development as noted in Recital 2 *"By reducing those greenhouse gas emissions, renewable energy can also contribute to tackling challenges related to the environment, such as the loss of biodiversity, and to reducing pollution"* and which will help to achieve the aim to *"protect, restore and improve the state of the environment by, inter alia, halting and reversing biodiversity loss"* while bringing *"broad socioeconomic benefits, creating new jobs and fostering local industries"*

Thirdly, the Directive underscores the urgent obligation on Member States to designate appropriate sites for the development of renewable energy infrastructure. In this context, it is particularly significant that the Proposed Development is located within an area identified as 'open to consideration' for wind energy development under the Cork County Development Plan. While the Directive does not override the Development Plan, it's imperative strongly reinforces the submission that the Commission can and should grant permission where the proposed development aligns with proper planning and sustainable development. The Directive reflects a clear EU policy stance that local or regional resistance to renewable energy projects must not obstruct the achievement of climate neutrality by 2050, particularly where local policies have not delivered sufficiently on EU renewable energy objectives. In this case, the Proposed Development is aligned with both EU policy and local planning designation..

1.2 Climate Action Plan 2025 and Relevant National Energy Policy and Legislation

Ireland declared a climate emergency on May 9, 2019. This declaration was made through an amendment to a parliamentary motion related to a report on climate action. The amendment, which declared a *"climate and biodiversity emergency,"* was accepted by both the government and opposition parties, making Ireland the second country in the world, after the United Kingdom, to declare a climate emergency formally.

The Emergency was declared against a backdrop of GHG emissions that were described by the Governments' Climate Change Advisory Council as *"disturbing"* and that Ireland was *"completely off course in terms of its commitments to addressing the challenge of climate change"*.⁶

⁶ Climate Change Advisory Council Annual Report 2018 at pp.ii-iv.

It was in this context that the Climate Action and Low Carbon Development (Amendment) Act 2021 was adopted. The Climate Action and Low Carbon Development Act 2015 and its subsequent amendments in 2021 serve as the primary legislative framework guiding Ireland's approach to addressing climate change and promoting a sustainable, low-carbon economy.

The 2021 amendment to the 2015 Act significantly enhanced the original 2015 Act in response to increasing global momentum on climate action and a heightened awareness of the urgency to address the climate crisis. In particular the Act includes:

Carbon Budgets: The amendment introduced a system of rolling carbon budgets, which are five-year ceilings on total greenhouse gas emissions in Ireland. These budgets are set for successive periods, and the government must develop a plan to adhere to them.

Formal 2030 Target and strengthened 2050 Target on Emissions: The amendment committed Ireland to halving emissions by 2030 and achieving climate neutrality (net-zero emissions) by 2050.

Enhanced Role of the Climate Change Advisory Council: The Council was given a stronger role in recommending carbon budgets and assessing the government's progress. As noted by the Council in their commentary on the Climate Action Plan 2023:

"The EPA projections published in early June give the best early indicator of the likelihood that compliance will be achieved. Provisional national total emissions in 2021, the first year of the first carbon budget period, are estimated to have totalled 69.3Mt CO₂ eq, reflecting a reduction of 1.3% on emissions in the base year 2018. This accounts for about 23.5% of the emissions allowance for the first period and means that there will be a requirement for emissions to fall more quickly over the period 2022-2025 than originally anticipated if the first budget is to be met. Emissions reductions of 8.4% per annum will now be required. Current EPA projections to 2030 indicate that the first two carbon budget targets present a significant challenge based upon existing and planned measures, with estimated gaps to target of 40-55Mt CO₂ eq in the first carbon budget period and 77-127Mt CO₂ eq in the second period."

Strengthened Reporting and Accountability: The amendment introduced stricter requirements for the government to report on its progress and to align its policies with the carbon budgeting framework.

Sectoral Emissions Ceilings: To support the carbon budgets, the amendment required the government to set binding sectoral emissions ceilings, ensuring that different sectors (e.g., transport, agriculture, energy) contribute to meeting the national targets.

Also critically and importantly for the purposes of the **Commission's consideration of this application, as will be set out below, it imposed on the Commission, insofar as practicable, to act in a manner consistent with the current Climate Action Plan and other matters set out in section 15 of the 2015 Act. This was a significant shift from the "have regard" standard contained in the original section 15 of the 2015 Act as set out in Section 1.3 below.**

Climate Action Plan 2025

It is important to note that the Climate Action Plan 2025 (CAP25) is designed to be read in conjunction with CAP24. CAP25 "builds upon last year's Plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings". As such, we have made reference to both the CAP24 and CAP25 in our comment below.

- Climate Action Plan 2024

The Climate Action Plan 2024 (CAP 24) builds on its predecessor, CAP 23, by updating and refining the actions needed to achieve the decarbonisation targets set by carbon budgets and sectoral emissions ceilings. The targets for renewable electricity generation remain consistent with CAP 23 (9GW of onshore wind & 80% renewable electricity share).

CAP 24 highlights recent trends in the electricity sector:

- In 2022, renewable generation reached 38.6% of electricity, up from 35% in 2021.
- Electricity contributed 14.4% of Ireland's greenhouse gas (GHG) emissions in 2022.
- To meet the first carbon budget, the electricity sector must achieve a 17.3% annual decarbonisation rate from 2023-2025. This is a significant jump, considering the rate was only 1.4% annually between 2018 and 2022.

CAP 24 emphasises the urgent need to decarbonise the electricity sector. The plan states:

"Given that the programme of large-scale offshore wind deployment is expected to be realised towards end decade, deployment rates for onshore renewables will need to increase to match demand growth to ensure we keep electricity emissions within range of the carbon budgets. This requires a major upscaling and accelerating in current deployment of renewables, particularly onshore wind."

The sheer scale of this undertaking becomes clear when considering the numbers:

"As an example, the historical average deployment of onshore wind installed capacity connected between 2008 and 2020 inclusive was ~280 MW per annum from 19 projects (with an annual maximum of 612 MW). To achieve the necessary emissions abatement, an approximately eight-times increase of renewable energy deployment to 2.3 GW annually would be needed between 2024 and 2030."

Crucially, CAP 24 identifies that in order to accelerate renewable energy rollout:

"greater alignment between local plans and renewable energy targets at national and regional level to support investment in and delivery of onshore wind and solar renewable energy is also critical".

- Climate Action Plan 2025

The CAP25 marks the third statutory update to Ireland's climate roadmap, as mandated by the Climate Act. This plan builds upon its predecessors, enhancing and strengthening the strategies crucial for meeting Ireland's legally binding carbon budgets and sectoral emissions ceilings. CAP25 outlines a clear path to achieve a 51% reduction in greenhouse gas emissions by 2030 and to reach climate neutrality no later than 2050.

A key element of CAP25 is the decarbonization of Ireland's electricity system, primarily through a significant increase in renewable energy generation. The plan reiterates ambitious targets for renewable electricity, aiming for 50% by 2025 and 80% by 2030. These goals will be met by accelerating the deployment of:

- Onshore wind: 2 GW by 2025; 9 GW by 2030
- Offshore wind: 8 GW by 2030
- Solar energy: Up to 5 GW by 2025; 8 GW by 2030

Delivery of Climate Change Targets

Despite the ambitious and essential targets for renewable energy set out in CAP 24 and 25 multiple assessments, including the Climate Change Advisory Council (CCAC) Annual Review and the Environmental Protection Agency (EPA) emissions projections, confirm that Ireland is not on track to meet these targets. Significant gaps remain in renewable energy deployment, particularly in grid capacity expansion and wind farm development, while continued reliance on fossil fuels threatens national and EU climate commitments.

As identified in the National Planning Framework First Revision, the Southern Region target requires facilitating a further 978MW of renewable power up to 2040. However, progress toward this target is being hindered by the refusal of planning permissions for appropriately located and well-designed renewable energy projects, including the Proposed Development.

Annagh Wind Farm would make a meaningful contribution to the renewable energy targets for the Southern Region as set out in the National Planning Framework First Revision while also supporting the broader national goals set out in CAP 25. Its approval would make a noteworthy contribution towards renewable energy ambitions and help bridge the widening gap between policy commitments and actual energy infrastructure development.

Implications of refusals with respect to Ireland's climate action targets

The refusal of well-planned, appropriately located renewable energy projects, such as the Proposed Development, threatens not only Ireland's ability to meet CAP 25 targets but also its legal commitments under national and EU law. CAP 25, the CCAC Annual Reviews for 2023 and 2024, and Ireland's Updated National Energy and Climate Plan (published in July 2024) all highlight the central role of renewable energy targets in addressing climate change.

Reports from the CCAC and the EPA's 2023 and 2024 emissions projections indicate that the electricity sector is not on track to meet these targets. Accelerated deployment of onshore wind is essential if Ireland is to reach the CAP 25 goal of 9GW of onshore wind capacity, of which at least 5GW must be delivered by 2030 and an 80% share of renewable electricity by the same year.

Failure to meet binding EU targets will expose Ireland to financial penalties, increased carbon credit costs, and continued dependence on fossil fuel imports, posing serious risks to energy security and economic stability. Furthermore, Ireland's national interest, as outlined in Section 143(1) of the Planning Act, requires the rapid expansion of renewable energy, making this a matter of strategic economic and social importance.

Beyond environmental and energy security concerns, the economic consequences of ongoing refusals are severe. Investors require certainty before committing to renewable infrastructure projects. Prolonged planning delays create uncertainty, discouraging investment and undermining job creation and regional economic growth. Under Section 143(1) of the Planning Act, the Commission is obligated to consider the national interest and the strategic economic and social significance of renewable energy projects. Given the direct link between wind energy expansion and Ireland's economic resilience, energy independence, and compliance with EU climate mandates, rejecting projects that align with national policies represents a failure to uphold this statutory duty.

Every viable renewable energy project plays a crucial role in meeting Ireland's climate targets. The approval of well-planned, appropriately located renewable energy projects, such as the Proposed Development is not just beneficial, it is imperative. Without decisive action to facilitate renewable energy deployment, Ireland risks missing national and EU commitments, incurring financial penalties, and undermining energy security.

Conclusion on the Relevance of Climate Action Plan

In conclusion, The Climate Action Plans 2024 and 2025 set ambitious yet necessary targets for Ireland's decarbonisation, emphasising the need for a significant increase in renewable energy generation to meet legally binding carbon budgets and emissions ceilings. Despite these targets, assessments show Ireland is not on track to meet these targets. The Southern Region must facilitate nearly 1,000 MW of additional renewable power by 2040, but refusal of planning permission for well-designed and appropriately located projects such as the Proposed Development is hindering progress towards this.

Approval of such projects is critical to bridging the gap between policy goals and actual renewable energy infrastructure development, supporting national climate commitments, and safeguarding Ireland's economic and energy security. Refusals of such projects without basis risks undermining statutory duties, whilst exposing Ireland to financial penalties, and threatening compliance with EU climate obligations.

1.3 Planning Authority's Obligations under the Climate Act 2021, as amended.

Section 17 of the Climate Action and Low Carbon Development Act (Amendment) 2021 amending section 15 of the 2015 Act requires that:

*"(1) A relevant body **shall**, in so far as practicable, perform its functions in a manner consistent with—*

(a) the most recent approved climate action plan,

(b) the most recent approved national long term climate action strategy,

(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,

(d) the furtherance of the national climate objective, and

(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State."

This text amended section 15 of the 2015 Act which required:

15. (1) A relevant body shall, in the performance of its functions, have regard to...

The change from a requirement to “*have regard to*” various national objectives to a standard where relevant bodies must “*perform their functions in a manner consistent with*” the latest national climate action policies, represents a considerable raising of the legal bar.

This is a sea change from the “*have regard*” to obligation identified by Mr Justice Holland in *Coyne and Another v An Bord Pleanála* [2003] IEHC 412⁷ as imposing an obligation only that the decision maker is aware of the relevant policy but no more – in other words a “*have regard to*” obligation says nothing at all about the weight of any factor to which regard must be had and is agnostic as to the result to be achieved. An obligation to act consistently does bear on the result which has to be achieved and clearly, per Mr Justice Holland’s decision at Section 19, is engaged by the Board in all of its functions.

Section 17(1) of the Climate Act 2021 outlines that bodies must perform their function in a manner consistent with but only “*in so far as practicable*”. These words are not a relaxation on the requirement but impose on the **Commission, a mandatory obligation to act consistently as far as is practicably possible. In the context of a planning application before the Commission, there are no practicable difficulties or impediments in acting in a manner consistent with such matters in determining a planning application - so such words have no relevance to the Commission in acting in its capacity in determining a planning application.**

Where the Board is weighing up competing policy objectives and or considering this planning application in the context of Section 37(1) of the Planning and Development Act 2000 (as amended), it must consider this overarching, legally binding, emissions reduction objective, and act in a manner that is consistent with the delivery of this target.

It is submitted that this obligation is, if anything, even more pressing where there is clearly a profound shortfall in the volume of renewable projects required to support compliance with national transition objectives, carbon budget and Sectoral emissions ceilings. It is respectfully submitted that Annagh Wind Farm if permitted will be in a position to make a significant contribution to the meeting of those targets prior to 2030.

1.4 Conclusion

Ireland has been mandated by the European Union to set legally binding targets for the reduction in greenhouse gas emissions by over half by 2030 and these provisions are set out in the Climate Act 2021. Sectoral specific targets are set out in the Climate Action Plan 2025 which requires the installation of 9 GW of Onshore Wind Energy by 2030. Currently there is an installed capacity of c. 4.6MW which demonstrates that there is a significant requirement by all bodies to work together to achieve this target. The enormity of the challenge is recognised in the Climate Action Plan 2024/2025 where it is stated “*To achieve the necessary emissions abatement, an approximately eight-times increase of renewable energy deployment to 2.3 GW annually would be needed between 2024 and 2030*”.

The importance of meeting these legally binding targets is recognised by government by setting out clear parameters on how ‘relevant Bodies’ in this instance An Coimisiún Pleanála, should perform

⁷ Coyne v An Bord Pleanála 2023 IEHC 412



their function. Section 17 of the Act 2021 requires the Commission to "*perform its functions in a manner consistent with*"....the most recent approved climate action plan, national long term climate action strategy, national adaptation framework and sectoral adaption plans.

It is respectfully submitted that the Commission in weighing up competing policy objectives, must consider this overarching, legally binding, emissions reduction objective, and act in a manner that is consistent with the delivery of the legally binding sectoral emissions ceilings and associated Climate Action Plan targets.

If you should require any further information, please do not hesitate to contact the undersigned.

Yours sincerely,

A handwritten signature in grey ink, appearing to read "Brian Cronin".

Brian Cronin

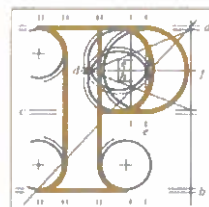
for and on behalf of **Fehily Timoney and Company**

Encl Appendix 1

Our Case Number: ABP-322439-25

Planning Authority Reference Number: 217246

Your Reference: Annagh Wind Farm Limited



An
Bord
Pleanála

Fehily Timoney
Core House
Pouladuff Road
Cork
T12 D773

Date: 05 June 2025

Re: Construction of 6 no. wind turbines, turbine foundations and crane pad hardstanding areas, new site tracks and associated drainage infrastructure and all associated infrastructure, services and site works. Application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement.
Annagh North, Coolcaum, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, Co. Cork.

Dear Sir / Madam,

I have been asked by An Bord Pleanála to refer to the above mentioned appeal bearing reference number ABP-322439-25.

An Bord Pleanála had previously made a decision on this appeal by Order dated 27th June 2024 and under appeal reference number ABP-315652-23. That decision was quashed by Order of the High Court and the case was remitted by that Court back to An Bord Pleanála for a new decision. A copy of the High Court order is attached to this letter for your information.

The appeal has now been reactivated.

Having regard to the High Court Order, the quashing of the previous Board decision and the passage of time, the Board considers that it is appropriate in the interests of justice to now request you under section 131 of the Planning and Development Act 2000, to make any further general submissions/observations you may have on the planning application the subject of this appeal.

In addition, the Board invites comment on the following documents:

- **RePowerEU (the EU 2022/2577 Regulation to accelerate the deployment of renewable energy).**
- **Climate Action Plan 2025.**

Any such submissions that you may have in response to this notice must be received on or before **2nd July 2025**.

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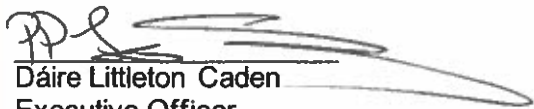
64 Marlborough Street
Dublin 1
D01 V902

The Board cannot consider comments that are outside the scope of the matters in question. Your submission in response to this notice must be received by the Board not later than **5.30 p.m. on the date specified above.**

If no submission or observation is received before the end of the specific period, the Board will proceed to determine the appeal without further notice to you, in accordance with section 133 of the 2000 Act.

Please quote the above reference number in any further correspondence.

Yours faithfully,



Dáire Littleton Caden

Executive Officer

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PLANNING AND ENVIRONMENT

H.JR.2024.0001069

THURSDAY THE 20TH DAY OF MARCH 2025

BEFORE MR JUSTICE HUMPHREYS

BETWEEN

ANNAGH WIND FARM LIMITED

Applicant

And

AN BORD PLEANÁLA

Respondent

Upon Motion of the Solicitor for the Applicant coming before the Court this day by way of electronic correspondence pursuant to the Notice of Motion filed herein on the 13th day of September 2025 seeking the following reliefs: “

1. An Order of Certiorari by way of application for judicial review quashing the Order of An Bord Pleanála (the “Board”) dated 27 June 2024 (Board reference no. ABP-315652) refusing permission for the development of Annagh Wind Farm at Annagh North, Co. Cork.
2. An Order remitting the said application for planning permission in respect of Annagh Wind Farm to the Board for reconsideration in accordance with law.

3. Such declaration(s) of the legal rights and/or legal position of the applicant and persons similarly situated and/or of the legal duties and/or legal position of the respondent as the court considers appropriate.
4. A Declaration that Section 50B of the Planning and Development Act 2000, as amended, and / or Sections 3 and 4 of the Environment (Miscellaneous Provisions) Act 2011 and/or that the interpretative obligation set out in Case C-470/16 North East Pylon Pressure Campaign Limited v. An Bord Pleanála whereby in proceedings where the application of national environmental law is at issue, it is for the national court to give an interpretation of national procedural law which, to the fullest extent possible, is consistent with the objectives laid down in Article 9(3) and (4) of the Aarhus Convention, apply to these proceedings.
5. Further or other orders
6. Costs.”

Whereupon and on reading the Notice of Motion filed on the 13th day of September 2025 the Affidavit of Pierce Dillon filed on the 15th day of October 2024 the Affidavit Bernice Cahill filed on the 25th day of October 2024 verifying the facts set out in said Statement together with the documents and exhibits therein referred to

And the Court being informed that there is agreement between the parties

BY CONSENT THE COURT DOTH GRANT

1. An Order of Certiorari quashing the Order of the Respondent dated 27 June 2024 (Board reference no. ABP-315652) refusing permission for the development of Annagh Wind Farm at Annagh North, Co. Cork.
2. An Order remitting the said application for planning permission in respect of Annagh Wind Farm to the Respondent for reconsideration in accordance with law.
3. An Order that the Respondent do pay the Applicant's costs of the proceedings (including reserved costs), excluding the Applicant's costs for the Respondent's proposed certificate application, such costs to be adjudicated in default of agreement.

GARETH REDMOND
REGISTRAR
Perfected 20th March 2025

Mason Hayes & Curran
Solicitor for the Applicant

Fieldfisher LLP
Solicitor for the Respondent

An Coimisiún Pleanála,
64 Marlborough Street,
Dublin 1,
D01 V902



02 July 2025

Our Ref: 25-180-FT-EN-XX-LT-EN-0003

Re: Case Number 322439-25 - Section 132 Response - Construction of 6 no. wind turbines, turbine foundations and crane pad hardstanding areas, new site tracks and associated drainage infrastructure and all associated infrastructure, services and site works. Application is accompanied by an Environmental Impact Assessment Report and Natura Impact Statement. Annagh North, Coolcaum, Fiddane, Cooliney, Rathnacally, Farranshonikeen, Ardnageehy and Clashganniv, Co. Cork.

Dear Sir/Madam,

Fehily Timoney and Company (FT), on behalf of the applicant (Annagh Wind Farm Limited), are responding to correspondence received from An Coimisiún dated 05 June 2025 in relation to the above-mentioned appeal. Three letters were received, which stated that the Board (now An Coimisiún) has examined the appeal and is of the opinion that certain information is necessary for the purpose of enabling it to determine the appeal.

We are providing one response letter to each of the letters received from An Coimisiún, below, we have provided our response to 'letter 3'.

Letter 3

Letter 3 is appended to this response letter (Appendix 1). The letter stated:

The Board proposes to take into account the following information related to the proposed development:

- A submission of the Development Applications Unit (DAU) to Cork County Council dated 15th June 2023, in respect of a nearby solar farm development at Ballyroe (Cork County Council, Registration Reference 226901).

Response:

1.0 Introduction

This response is based on the results of two years of winter ornithology surveys undertaken during winter 2023-24 and winter 2024-25.

This response and associated reporting centre on the information contained in the DAU submission on Ballyroe solar farm, and address two reasons for refusal directly. These are:

- 1) potential cumulative displacement effects on whooper swan arising from the proposed Annagh wind farm in conjunction with Ballyroe solar farm; and
- 2) use of 'untested mitigation' to avoid/reduce potential effects on whooper swan during the autumn and spring migration periods.

The following responses are based on the ornithology report attached to this letter, which includes detailed information on the distribution and behaviour of wintering whooper swans in the locality of the proposed wind farm. The ornithological study undertaken fully encompasses the lands identified in the Ballyroe Solar Farm DAU submission.

1.1 Whooper Swan Distribution and Activity

The distribution and activity patterns of wintering whooper swan in the Annagh/Ballyroe locality detected by current surveys align with the findings outlined in the DAU submission for Ballyroe solar farm; however, the assessment of these patterns with regard to potential for cumulative effects to arise from construction and operation of Annagh wind farm in conjunction with Ballyroe solar farm cited as reasons for refusal of Annagh wind farm is rebutted on the basis that:

- 1) the established whooper swan activity and distribution patterns were not assessed in sufficient spatial detail to assess overlap or lack thereof between the proposed wind farm and established whooper swan activity, and
- 2) overestimation of the potential importance of habitats at the proposed wind farm site for whooper swan.

Distribution and Activity Patterns of Local Wintering Whooper Swans

While the current surveys detected a peak herd size of >97 which is less than the peak herd detected during NPWS surveys (177), the same distribution patterns were recorded, with swan herds and flight activity clustered around Ballyroe, Caherconnor, Annagh Fields East and Annagh Bogs (see attached ornithology report Figure 3-1). The surveys confirmed that the main grazing area in the locality inhabited by wintering whooper swans is centred on the fields at Annagh Fields East located along the Oakfront River south of the bridge and local road (0.73 km south-east of wind farm site) (covered by Annagh Fields East VP), and confirmed the area of Ballyroe Quarry Pond (1.75 km east of wind farm site) as the primary night roost in the locality. Occasional use of a flooded field at Annagh Bogs encompassing both roosting and feeding, located 0.8 km south-west of the closet proposed turbine (T04) (0.62 km west of wind farm site) was also detected, in agreement with NPWS surveys. Other areas occasionally used for grazing included fields along the Awbeg, at Caherconnor and south of Ballyroe. While the habitual night roost and grazing areas are located respectively at Ballyroe and Annagh Fields East, swan herds occasionally roosted at Annagh Fields East and Annagh Bogs. The density of static records and flight lines around Annagh Fields East and Ballyroe, in contrast with lower occurrence of activity in other areas provides a robust indication of the distribution of the local population and varying intensity of use of the areas they inhabit.

The flight patterns recorded trace the routes used to move between the areas described above, which indicate direct flight between the two primary sites Ballyroe and Annagh Fields East (all flights between these sites fully avoid the area in which the proposed wind farm is located), movements between Annagh Fields East and Annagh Bogs, and movements from Annagh Fields East towards the Awbeg. The habitual flight route between Annagh Fields East and Annagh Bogs is assessed based on observed flight activity as moving north/north-west, before veering south-west and then north-west again to arrive at Annagh Bogs and vice versa for the return journey. While they traverse lands to the south of the proposed wind farm site, none of these routes traverse the proposed wind farm site. Over the two full winters of surveys, there was one flight on 29/10/2024 at 07:20 am from Annagh Bogs (ID 33, detailed in attached ornithology report Appendices 2 and 3) where eight swans proceeded north-west towards the proposed wind farm before moving out of sight behind a treeline. This is assessed as either an outlier with a small group of swans moving north-east away from established/habitual territories, or swans straying too far north-west when moving back to the main grazing area at Annagh Fields East.

The flight corridors identified by current surveys align with previous NPWS survey findings.

There were no records of whooper swans traversing, grazing or roosting within or near the proposed wind farm site during visual surveys. Across all VP surveys, 94% of whooper swan flight activity was within the 0-25m height band (below lowest turbine blade tip height), while 6% occurred across height bands between 25m - 100m. It is noted that guidance identifies a 99.5% avoidance rate for whooper swan (SNH, 2018).

Habitat Preferences

Whooper swans are known to favour more intensively managed agricultural land for grazing, encompassing both pasture and tillage. Areas where these habitats occur in conjunction with flooding provides ideal habitat for this species, as demonstrated by the distribution patterns observed during current surveys.

Field observations and recent orthophotography confirm these conditions are present at Ballyroe, Annagh Fields East and Annagh Bogs, in addition to being common within the wider Awbeg catchment extending into the region south and south-east of the proposed Annagh wind farm. Plate 4-1 to Plate 4-3 below show the winter condition of the areas used by the local wintering whooper swan population.

In contrast, the rough agricultural fields in and adjacent to the southern area of the proposed wind farm, while wet and prone to winter flooding, do not provide favourable foraging opportunities for whooper swan due to low-intensity management and dominance of semi-natural vegetation with lower calorific value than the vegetation characteristics of more intensively managed agricultural habitats which are abundant in the region.



Plate 4-1: Flooded fields in primary grazing area at Annagh Fields East Swan VP



Plate 4-2: Ballyroe Quarry Pond (top right) and wet fields to south-west



Plate 4-3: Annagh Bogs - the partially dark field covered by text above is the area used by whooper swans. It has been reseeded and drained, but remains prone to flooding, providing ideal whooper swan habitat.

As such, the rough and wet grassland habitats at and near the proposed wind farm site provide sub-optimal habitat for wintering whooper swan, and would at best provide potential roosting habitat (no roosting was observed at the proposed wind farm during surveys). Considering the abundance of more intensively managed agricultural land prone to flooding in the locality and wider Awbeg catchment, the habitats at the proposed Annagh wind farm site are of minor importance for whooper swan when considering the overall habitat resource in the locality and wider region.

In the event of displacement from Ballyroe, more suitable roosting habitats are present at Annagh Fields East and Annagh Bogs, as evidenced by detailed observation of the local wintering whooper swan population.

In terms of potential for construction stage-displacement to result in cumulative effects, the habitats at the proposed Annagh wind farm are again assessed to be of minor importance in terms of its contribution to the habitat resource for whooper swans in the locality; higher quality roosting/grazing habitat is present at Annagh Bogs, Annagh Fields East, and also within c. 3 km along the Awbeg at Caherconnor East, Awbeg Bridge and Lisballyhea. The use of flooded fields at Lisballyhea by whooper swans has been demonstrated during hinterland surveys (see attached ornithology report).

While there is a high degree of certainty that Ballyroe Quarry pond and surrounding lands will be required to be retained for whooper swans due to planning conditions imposed on Ballyroe solar farm by Cork County Council, even in a worst-case scenario where whooper swans were displaced, either temporarily or permanently from Ballyroe Solar Farm, there is ample alternative habitat in the Awbeg catchment suitable for use by roosting and grazing whooper swans, as evidenced by observations of whooper swans at Caherconnor East (6 swans observed on 27/01/2025), Awbeg Bridge (7 swans observed on 26/02/2024) and Lisballyhea (groups ranging from 6 to 49 swans observed across 7 dates between 29/10/2023 and 27/01/2025). Furthermore, the potential contribution to this whooper swan habitat resource made by the habitats at and adjacent to the proposed Annagh wind farm site is negligible in comparison to higher quality habitats which occur frequently in the flooded intensively managed pasture present in the Awbeg floodplain. As such, there is no potential for a cumulative effect in conjunction with Ballyroe solar farm in terms of potential whooper swan displacement.

Considering the above, it is concluded that the findings of the NIS remain unaltered.

For the reasons set out in detail in the NIS, in the light of the best scientific knowledge in the field, all aspects of the proposed development which, by itself, or in combination with other plans or projects, may affect the relevant European Sites have been considered.

The NIS contains information which the competent authority, may consider in making its own complete, precise and definitive findings and conclusions and upon which it is capable of determining that all reasonable scientific doubt has been removed as to the effects of the proposed development works on the integrity of the relevant European sites.

In the light of the conclusions of the assessment which it shall conduct on the implications for the European sites concerned, the competent authority is enabled to ascertain that the proposed development works will not adversely affect the integrity of any European site.

Whooper Swan Migration Windows and Associated Curtailment Mitigation

It is noted that one of the reasons given for refusal was the use of untested technology for mitigation to avoid effects on migrating whooper swan. This is rebutted, considering that the proposed mitigation is clearly comprised of curtailment, the period of which was extended at the request of NPWS to cover the period from 15 September to 15 December for autumn/winter and 21 February to 15 April for spring migration.

The proposed mitigation from the outset is to implement curtailment between dusk and dawn¹ during this period for the first year of operation, and to monitor migration patterns of whooper swan to determine if a narrower curtailment window can be applied while achieving the same level of mitigation. Any reduction in the curtailment window would only be implemented with the agreement of the planning authority and NPWS. Where there is no agreement by all parties the curtailment period shall remain the same.

The queries in relation to the reliance of future technologies misunderstand the spirit in which this consideration is included. The requested planning permission is for 10 years and it must be noted the proposed operational time of the wind farm is 35 years. Given this extended period of time, and the potential for future advances in technology and ecological mitigation measures over the coming decades, this statement merely acknowledges the potential for future advances in technology which may become standard ecological mitigation measures over the next 30 plus years. For a mitigation measure to become an industry standard accepted ecological mitigation measure the effectiveness of the technology must be beyond reasonable scientific doubt based on evidence from other sites in which it has been implemented. For clarity it must be emphasised that it is not proposed to trial or rely upon any new experimental technologies as a form of mitigation at the proposed Annagh Wind Farm. Regarding the use of technology to detect whooper swan movements and refine curtailment further, this is proposed only as an option for future consideration, and could not be implemented without agreement of the planning authority and NPWS on the basis of guaranteed effectiveness. Therefore, the developer alone cannot decide to adopt a new technology without this agreement.

As such, the proposed mitigation always was and remains curtailment from the outset, and it does not rely on any future technologies to further reduce/avoid effects. This is the basis upon which assessment is made.

The earliest and latest dates that whooper swan were recorded based on current surveys are detailed in Table 4-1. Based on observations across all survey types, the earliest autumn record of whooper swan was 02 October, while the latest autumn audio record was 28 November, indicating an autumn migration window range of 02 October to 28 November based on current surveys.

Applying the same principle in reverse to spring migration, observations across all surveys indicate a spring migration window range of 15 March to 30 March based on current surveys.

These migration windows identified by surveys are comfortably within the proposed curtailment mitigation windows, which are suitably conservative and extend from 15 September to 15 December for autumn/winter and 21 February to 15 April for spring migration, as proposed by the DAU.

¹ It is noted that previous documentation incorrectly referred to curtailment between dawn and dusk. This is evidently incorrect, since the purpose of curtailment is clearly to reduce potential for collisions during night time when visibility is poor.

Table 4-1: *timing of records indicating whooper swan migration windows*

Season	Autumn	
Year	2023	2024
Audio (first)	05/11/2023	13/10/2024
Wind farm VP (first)	02/11/2023	02/10/2024 ²
Swan VP (first)	01/11/2023	21/10/2024
Hinterland (first)	29/10/2023	21/10/2024
Audio (last)	23/11/2023	28/11/2024 ³
Season	Spring	
Year	2024	2025
Audio (first)	22/03/2024	15/03/2025 ⁴
Wind farm VP (last)	n/a	n/a
Swan VP (last)	29/03/2024	24/03/2025
Hinterland (last)	30/03/2024 ⁵	23/03/2025
Audio (last)	28/03/2024	19/03/2025

² Earliest autumn record across all surveys

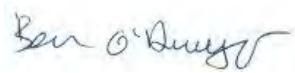
³ Latest autumn audio record

⁴ Earliest spring audio record

⁵ Latest spring record across all surveys

If you should require any further information please do not hesitate to contact the undersigned.

Yours sincerely,



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Senior Project ecologist

for and on behalf of **Fehily Timoney and Company**

Encl.



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

Annagh Wind Farm: Baseline Report for Winter 2023-24 And Winter 2024-25 Bird Surveys

Prepared for:
Annagh Wind Farm Ltd.

Date: July 2025

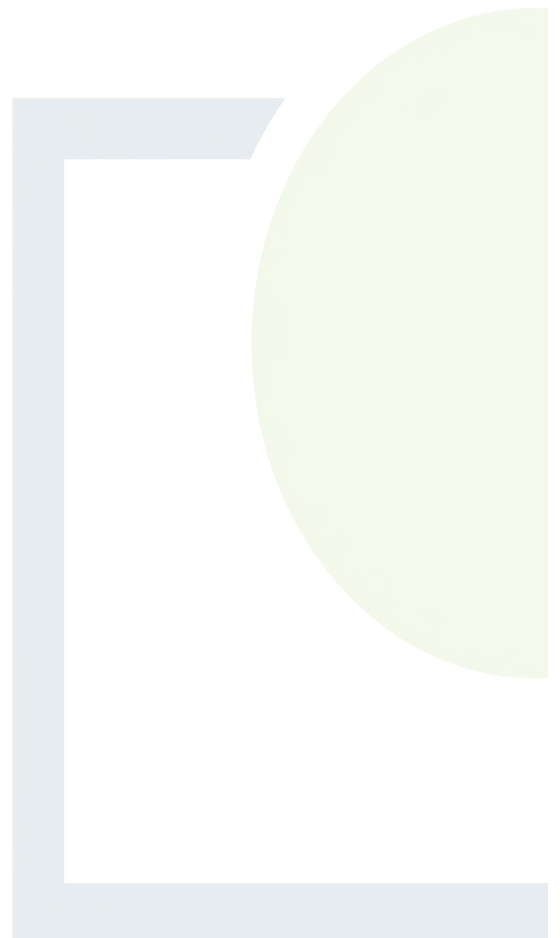
Document No:
P23-246-FT-XX-RP-EN-0001

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Annagh Wind Farm: Baseline Report for Winter 2023-24 And Winter 2024-25 Bird Surveys

REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

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1. INTRODUCTION

Fehily Timoney and Company (FT) have prepared this Ornithology Report for the proposed Annagh Wind Farm, on behalf of the applicant (Annagh Wind Farm Limited). The proposed wind farm is currently with An Coimisiún Pleanála for a decision, following an order of certiorari from the High Court, quashing a previous decision from An Coimisiún to refuse the development (Case number 322439-25). FT have prepared this report to provide further evidence in support of the proposed wind farm. In particular, this report provides information relating to a letter we received from An Coimisiún dated 05 June 2025. An extract from the letter is provided below:

The Board proposes to take into account the following information related to the proposed development:

- A submission of the Development Applications Unit (DAU) to Cork County Council dated 15th June 2023, in respect of a nearby solar farm development at Ballyroe (Cork County Council, Registration Reference 226901).

As such, additional surveys to gather information on use of the proposed wind farm site and surrounding agricultural lands by wintering whooper swan were undertaken during winter 2023-24 and winter 2024-25. These surveys encompassed vantage point flight activity surveys at the proposed Annagh wind farm site, vantage point surveys covering fields used by wintering whooper swans in the area surrounding the proposed wind farm, hinterland surveys and nocturnal migration (NocMig) audio surveys to gather information on the timing of arrival and departure of the local wintering whooper swan population.

The primary focus of surveys was to gather detailed information on the distribution and activity of the local wintering whooper swan population; however, the surveys also encompassed the full suite of target species covered by previous surveys and assessments.



2. METHODOLOGY

The methodologies utilised during surveys are detailed below under survey-specific headings.

2.1 Vantage Point Surveys (Wind Farm Site)

Additional Vantage Point (VP) surveys were carried out at the proposed Annagh Wind Farm site during the non-breeding seasons of November 2023 to March 2024 and October 2024 to April 2025. These surveys also encompassed the autumn and spring migration periods for whooper swan. The surveys were conducted in accordance with Scottish Natural Heritage (SNH) methodology for onshore Wind Farms (Scottish Natural Heritage Guidance, 2017). A total of two VP locations overlooking the Annagh wind farm flight activity study area were used during the VP survey (see Figure 2-1). These were chosen to cover specific viewsheds of the Proposed Wind Farm and to encompass a 500m buffer zone around the proposed turbine layout of the wind farm. SNH (2017) guidance states that viewsheds should cover a 500 m circular buffer drawn around each proposed turbine location. This buffer is referred to as the 'SNH Buffer' (see Figure 2-1).

The flight activity study area, comprised of the combined viewsheds, overlaps the Proposed Wind farm and the Proposed Substation. This 'flight activity study area, or 'study area' is utilised as a geographic descriptor when detailing the results of flight activity surveys (Section 3.2).

The main purpose of VP survey watches is to collect data on target species that will enable estimates to be made of:

- The time spent flying over the defined survey area;
- The relative use of different parts of the defined survey area; and
- The proportion of flying time spent within the upper and lower height limits as determined by the rotor diameter and rotor hub height.

VP locations were based on observations from walkover/reconnaissance surveys, viewshed analysis (using GIS) and collated information on known feeding and roosting sites from both desktop review and consultation. The number and location of vantage points was selected in order to achieve visibility of the entire study area and important features for birds in close proximity to the site (e.g., lakes, wetlands).

In line with recommended best practice (Scottish Natural Heritage Guidance, 2017) (Band et al. 2007 and Band, 2024), viewshed analysis was undertaken using ArcMap, to calculate a theoretical zone of visibility from each vantage point. Visibility is calculated from each vantage point along an invisible layer suspended at the predicted lowermost height passed through by the rotor blade tips, using an observer height of 1.5 m. We note the following from SNH guidance in respect of priority areas for viewshed analysis (emphasis added):



“Where the key purpose is to estimate the risk of collision with turbines, it is the visibility of the airspace to be occupied by the turbine rotors (the collision risk volume) that is of prime importance. Therefore, it is recommended that visibility be calculated using the least visible part of this airspace, i.e. an imaginary layer suspended at the lowermost height passed through by the rotor blade tips (typically about 20-30m above ground level). Predicting visibility at this level is a simple task using GIS, however it should be noted that the baseline should take account of any forestry or other features that will potentially obstruct the view. For example, forestry may be 10-30m high and if viewshed height is taken as 20-30m ground level the visible area could be overestimated if there is forestry within the viewshed. Being able to view all or most of the site to ground level can be helpful in gauging overall bird activity and usage of the site but is not as important as being able to view the collision risk volume”

Following SNH guidance (2017), watches were conducted to sample diurnal and crepuscular activity of target species, exceeding the required effort from SNH.

Data recorded included flight activity of target species (flight height, duration, directionality) in addition to metrics such as flock size (per recorded transit) and time of observation. Detailed notes of each observation of a target bird species was recorded including behaviour, gender (where possible), numbers, flight height, associated habitat and the period of time spent within the study area. Successful foraging events were also noted if they arose. Other bird species seen or heard during the VP surveys were also recorded and were considered separately in the analysis as additional species. Flight activity was annotated onto field maps. Total numbers of birds present both on arrival at the vantage point and on departure is noted. The Vantage Point survey schedule can be found in Appendix 1, and Vantage Point survey results can be found in Appendix 2. Details of each flight-path observation are provided in Appendix 3. Binoculars and telescopes are used to scan for target species. Dictaphones are utilised to dictate bird heights whilst tracking flight events.

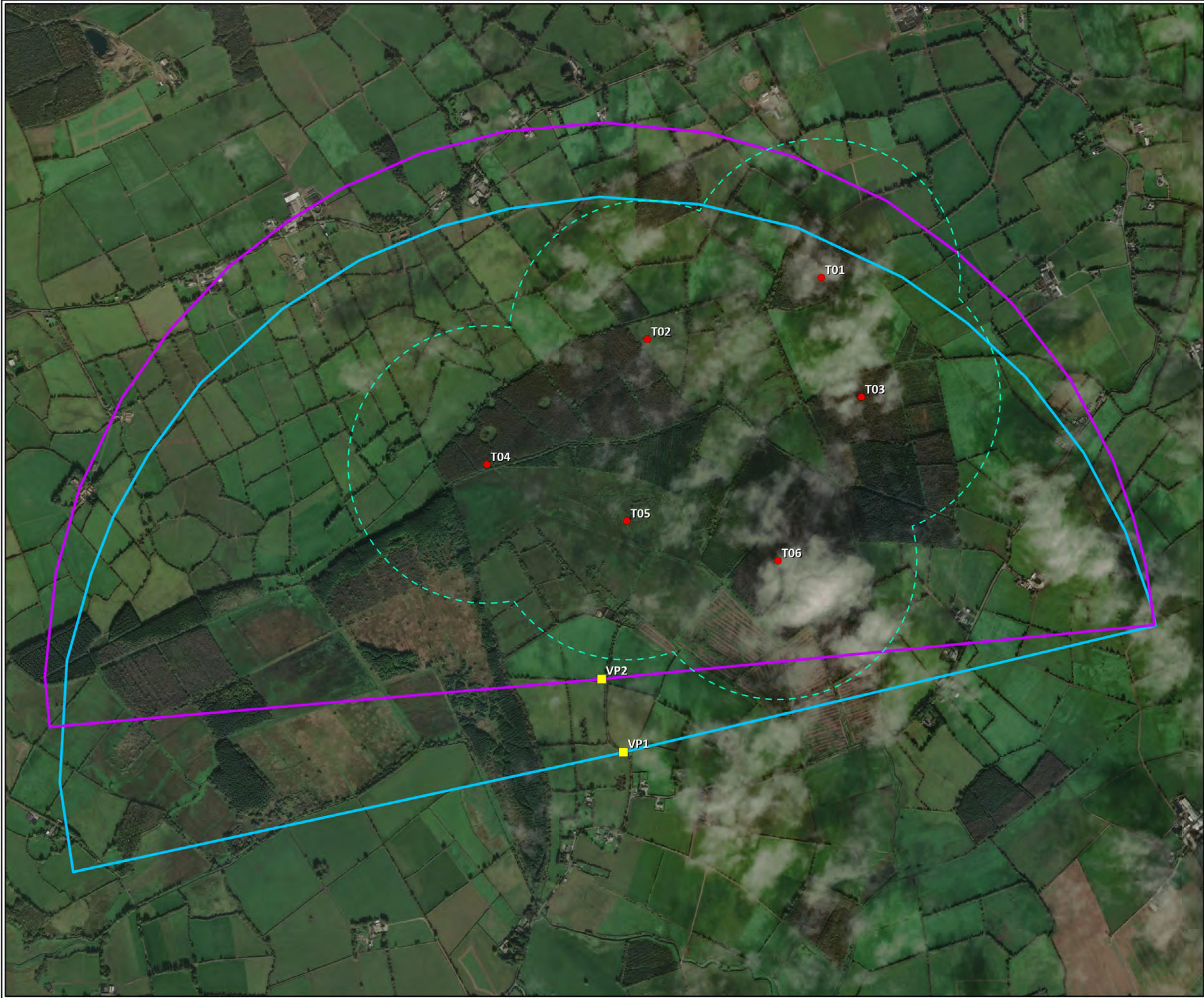
Flight heights are estimated visually as allowed for in SNH (2017) guidance. Flight height estimation using a clinometer or rangefinder is accepted as an alternative means of determining flight height however this is often not practicable (equipment may be clumsy and birds may be lost from view whilst trying to focus additional equipment on a target species rapidly moving out of sight); it should be noted that in practice many flocks of swans do not fly close enough to a surveyor for a rangefinder to be used, resulting in most flights heights being estimated in any case. As is often the case an experienced observer will be able to record accurate observations at a higher frequency.

The VP survey effort at the proposed wind farm site was comprised of 36 hours per VP during winter 2024-25 and 30 hours per VP during winter 2023-24. VP surveys involved carrying out monthly 2 x 3-hour VPs at each VP during the survey periods.

The bird activity recorded both inside and outside the Proposed Wind Farm site boundaries was used as part of the overall analysis and assessment of target species usage of the study area. Details of vantage point locations can be found in Table 2-1 below. All surveys were conducted during suitable weather conditions.

Table 2-1: Vantage Point Locations (ITM)

Vantage Point	ITM (X)	ITM (Y)
VP 1	550115	616205
VP 2	550037	616468



- Legend**
- Turbine Layout
 - Turbine Layout 500m Buffer
 - Vantage Point Locations
- 2km Viewsheds**
- ▭ VP1 Viewshed
 - ▭ VP2 Viewshed

TITLE: Viewshed Analysis (based on a target height of 30m and observer height of 1.5m)	
PROJECT: Annagh Wind Farm	
FIGURE NO: 2.1	
CLIENT: Annagh Wind Farm Ltd.	
SCALE: 1:13,500	REVISION: 0
DATE: 23/06/2025	PAGE SIZE: A3
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2.2 Vantage Point Surveys (Swan Grazing/Roosting Areas)

In addition to VP surveys at the proposed wind farm site, swan VP surveys using the same methodology were completed at all known swan grazing/roosting areas in the vicinity of the proposed wind farm. Initially, roving reconnaissance surveys to pinpoint areas used by wintering whooper swan herds in the locality of the proposed wind farm. Following on from this, regular VP watches were conducted at these sites at either dawn or dusk in order to gather information on distribution and behaviour of the local wintering population. Roving checks were continued in conjunction with VP surveys to ensure that survey effort was consistently focused on areas where whooper swan activity was occurring.

The surveys recorded both static/ground-based activity and also flight activity, following the methods detailed above in Section 2.1.

Following reconnaissance surveys, vantage points were established and surveyed regularly at either dawn or dusk during winter 2023-24 and winter 2024-25. The swan VP survey schedule can be found in Appendix 4 and swan VP survey results can be found in Appendix 5. Details of each flight-path observation are provided in Appendix 6.

The swan VP surveys were used to monitor the distribution of grazing/roosting whooper swans in the lands surrounding the proposed wind farm site and also to document the flight patterns of swan herds moving between these areas. The swan VP locations were also selected in order to provide coverage of the proposed Ballyroe solar farm and all areas identified as being used by wintering whooper swan through surveys by NPWS (DAU/NPWS, 2023) surveys (identified on Figure 2-2).

All surveys were conducted during suitable weather conditions. Swan VP locations surveyed during winter 2023-24 and winter 2024-25 are detailed below in Table 2-2 and Figure 2-2.

Table 2-2: Swan Vantage Point Locations (ITM)

Vantage Point	ITM (X)	ITM (Y)
Annagh Bogs	549307	616354
Annagh Fields East	551055	616249
Ballyroe Quarry Pond	552832	616951



- Legend**
- Site Boundary
 - Turbine Layout 500m Buffer
 - NPWS Whooper Swan Distribution
 - Turbine Layout
- Swan VP Locations**
- Annagh Bogs
 - Annagh Fields East
 - Ballyroe Quarry Pond

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		Cork Dublin Carlow www.fehilytimoney.ie	



2.3 Hinterland Surveys

The methodology used for wetland sites during winter hinterland surveys followed I-WeBS (Irish Wetland Bird Survey) methodology (Lewis et al., 2019), whereby each location was surveyed for the duration necessary to identify and obtain a count for all target species present. The same approach was adapted for non-wetland sites. A hinterland survey for raptors was conducted in accordance with Raptors: a field guide to survey and monitoring (Hardey et al. 2013) to assess raptor activity over the winter period in the greater surroundings. The hinterland survey also encompassed searches for hen roosting sites within 2km of the proposed wind farm, fulfilling the requirement set out in SNH Guidance (2017).

The surveys were carried out in suitable habitats for birds (woodland, wetland, peatland, farmland) in the area surrounding the proposed wind farm site. The survey was focused on 23 sites within c. 10 km of the proposed Annagh Wind Farm (see Figure 2-3). Hinterland surveys were carried out between October 2023 - March 2024 and October 2024 - April 2025. The sites detailed in Figure 2-3 were checked regularly across this period. These sites were chosen as they had suitable habitat for the following target species: waterfowl, raptors, waders, barn owl, geese and swans. The survey schedule can be found in Appendix 7 and weather conditions are included in Appendix 8.





2.4 Nocturnal Migration Audio Surveys

In parallel with the visual surveys, acoustic monitoring via autonomous recording units (ARUs) and was carried out to monitor nocturnal whooper swan activity, including nocturnal migration. When used in conjunction with visual surveys, ARUs are useful in pinpointing the time of arrival or departure of migratory birds, which can contribute to more robust definition of key periods for migratory activity.

The recording devices used to complete NocMig surveys were Audiomoths and Wildlife Acoustics Song Meter Mini passive recording devices. These devices were programmed to record continuously starting half an hour before sunset and finishing half an hour after dawn.

The deployment periods covered/number of nights recorded are detailed in Table 2-3 and Table 2-4. Audio recorder locations are shown in Figure 2-4. Since the length of device operation is dictated by battery life and other factors, and regular download of data from devices is necessary, regular visits to change batteries, copy data and confirm continued functioning of devices were undertaken. Audio monitoring was not constant, with short intervals of downtime due to low battery levels and required card changes, in addition to scheduling constraints associated with normal working days. However; survey effort was high, covering the majority of key migration periods across multiple locations at the proposed wind farm site and therefore comprises a robust sampling effort and baseline data.

It is noted that the Annagh North detector location surveyed for autumn/winter 2023 is equivalent to Annagh 2 for all subsequent monitoring periods.

Table 2-3: Audio device deployment schedule 2023-24

Autumn - Winter 2023				
Location	Annagh Barn	-	Annagh North	-
Monitoring Period 1 (nights recorded)	10/11 - 25/11/2023	-	03/11 - 26/11/2023	-
Monitoring Period 2	21/12 - 26/12/2023	-	21/12 - 28/12/2023	-
Total No. Nights Monitored	40	0	32	0
Winter - Spring 2024				
Location	Annagh Barn	Annagh 1	Annagh 2	Annagh 3
Monitoring Period 3	12/02 - 02/03/2024	27/02 - 02/03/2024	27/02 - 02/03/2024	27/02 - 02/03/2024
Monitoring Period 4	19/03 - 24/04/2024	19/03 - 24/04/2024	19/03 - 19/04/2024	19/03 - 20/04/2024
Total No. Nights Monitored	39	38	37	38



Table 2-4: Audio device deployment schedule 2024-25

Autumn - Winter 2024				
Location	Annagh Barn	Annagh 1	Annagh 2	Annagh 3
Monitoring Period 1	19/09 -16/11/2024	19/09 -16/11/2024	19/09 - 15/11/2024	19/09 - 16/11/2024
Monitoring Period 2	19/11 - 29/11/2024	19/11 - 04/12/2024	19/11 - 05/12/2024	19/11 - 04/12/2024
Monitoring Period 3	15/12/2024	12 - 13/12/2024	No recordings (SD card malfunction)	12 - 13/12/2024
Total No. Nights Monitored	74	80	78	79
Spring 2025				
Location	Annagh Barn	Annagh 1	Annagh 2	Annagh 3
Monitoring Period 4	07/03 - 19/04/2025	07/03 - 17/03/2025	07/03 - 25/03/2025	07/03 - 16/03/2025
Monitoring Period 5		01 - 05/04/2025	01 - 15/04/2025	18/03 - 14/04/2025
Total No. Nights Monitored	44	16	34	38



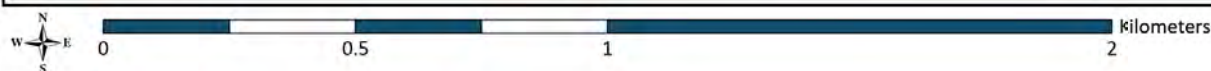
Legend

- Site Boundary
- Turbine Layout
- Met Mast
- Underground Cable Route
- Substation
- Construction Compound
- Turbine Hardstanding Area

Roads

- New
- Upgrade
- Audio Device Locations

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SCALE:	1:15,000	REVISION:	0
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3. RESULTS

The survey results have been arranged to focus on whooper swan activity in Section 3.1 and other target species activity in Section 3.2.

3.1 Whooper Swan Activity and Distribution

Details of whooper swan activity and distribution patterns observed across all surveys are presented in this section. For further details of individuals records, please consult Appendices 2, 3, 5, 6 and 8 in conjunction with this section.

3.1.1 Whooper Swan Activity Recorded During Wind Farm Site VP Surveys

This section details the whooper swan activity detected near the proposed wind farm site (covered by VP1 and VP2) during winter 2023-24 and winter 2024-25.

3.1.1.1 *Winter 2023-24*

There were no visual records of Amber-listed/Annex I whooper swan during winter 2023-24 VP surveys at the proposed wind farm site. There were no records of swans using the proposed wind farm site for grazing or roosting.

This species was heard but not seen twice during winter 2023-24 VP surveys. The first record comprised an estimated five birds calling in flight, heard from VP2 at 07:50 on 02/11/2023. The second non-visual record noted a whooper swan calling in flight to the east of VP2 at 09:49 on 12/02/2024. Subsequent observations indicate these records could be associated with whooper swans moving between Annagh Bogs and other habitual grazing/roosting sites in the locality such as Annagh Fields East or Ballyroe Quarry Pond (located outside the proposed wind farm site to the respectively to the south and east) (see Swan VP results below).

3.1.1.2 *Winter 2024-25*

Whooper swans were observed three times during winter 2024-25 VP surveys. The first observation recorded a group of three whooper swans flying south-west to the south of VP2 (outside the proposed wind farm site) on 02/10/2024. The other two observations, recorded on 19/11/2024 involved groups of three (08:27) and six (09:18) swans flying westward to the south of VP2 (outside the proposed wind farm site). The flight pattern of these observations indicate they are likely to indicate groups flying between Annagh Bogs and other habitual grazing/roosting sites in the locality such as Annagh Fields East or Ballyroe Quarry Pond (located outside the proposed wind farm site to the respectively to the south and east) (see Swan VP results below).

There were no records of swans using the proposed wind farm site for grazing or roosting, and no records of swans flying over the proposed wind farm site.

3.1.2 Whooper Swan Activity Recorded During Swan VP Surveys

This section details the whooper swan activity recorded to the south-west, south, south-east and east of the proposed wind farm site (covered by dedicated swan VPs) during winter 2023-34 and winter 2024-25.



3.1.2.1 Winter 2023-24

During surveys at Swan VP East in winter 2023-24, a total of 18 whooper swan flights of groups ranging from two to 44 swans were recorded. All flights either terminated or originated from the wet fields along the Oakfront River south of the local road bridge (Annagh Fields East). These wet fields are the primary location used for grazing by the local wintering population, and are also occasionally used for roosting. The majority of flights (12) came in from the east to land in these fields. A total of three flights came in from the west (from Awbeg River direction); three left from these fields travelling east/north-east (towards Ballyroe), and three were short flights within the grazing/roosting fields crossing the Oakfront River. Individual flight lines and records of grazing or roosting swans are mapped in Figure 3-1a and further details of individual records area included in Appendix 5.

In addition to flight lines, two static herds were recorded; one comprised of 35 grazing swans present on surveyor arrival (12:00) at the wet fields at Annagh Fields East (0.73 km south-east of wind farm site) and the other comprising five grazing swans in a field c.650m north-east of the main grazing area at Annagh Fields East (observed at 14:00 after VP watch).

3.1.2.2 Winter 2024-25

During Swan VP surveys in winter 2024-25, surveys encompassed regular visits to three vantage point locations, namely Annagh Bogs, Annagh Fields East and Ballyroe Quarry Pond. These surveys reconfirmed the fields at Annagh Fields East as the primary area occupied by grazing whooper swans, in addition to detecting occasional use of other fields, including Annagh Bogs (0.62 km west of wind farm site), fields near Caherconnor (1.18 km south-east of wind farm site, just east of main grazing area) and fields east of Annagh Bridge (Annagh Fields West, 1.15 km south of wind farm site). Observations at Ballyroe Quarry Pond (1.75 km east of wind farm site) indicated this area is frequently used as a roosting site, with swans returning from grazing areas to roost at the pond overnight. There were also instances of the swan herd roosting at grazing sites, including the primary grazing area at Annagh Fields East and also Annagh Bogs.

During surveys at the three swan VPs surveyed during winter 2024-25, a total of 85 whooper swan flights with swan numbers ranging a single individual (one record) up to 84 birds were recorded. The majority of these flights (61) were observed from the Annagh Fields East VP covering the main grazing area. These included evening flights towards the roost at Ballyroe, swans leaving Annagh Fields East after roosting overnight, and swans flying west and north/north-west (all evening flights), potentially indicative of movements towards Annagh Bogs.

A total of 20 whooper swan flight lines were recorded at Ballyroe Quarry Pond. These recorded groups of between two and 47 swans flying in at dusk to roost at the pond. All five flight lines observed at Annagh Bogs involved swans leaving this area in the morning, having roosted there the previous night. A total of four flight lines (66 swans whooper swans in total) were observed on 29/10/2024, with the remaining two observed on 01/01/2025 (five swans) and 19/02/2025 (eight swans). The majority of flight lines out of Annagh Bogs travelled east or south-east, with the exception of one flight of eight swans at 07:20 on 29/10/2024 which travelled north-east towards the proposed Annagh wind farm site before being lost from sight behind a conifer treeline.

In addition to flight lines, a total of 25 static herds were recorded (22 mapped; three unmapped, comprising two herds of 27 and 37 at Annagh Fields East and one herd of 54 at Annagh Bogs). The majority of these (20) were observed at the primary grazing area at Annagh Fields East. These ranged in size from 28 to >97 swans. In most instances, these herds were present on surveyor arrival either representative of the daytime grazing herd, or occasionally a herd which had roosted overnight. These herds frequently dispersed around dusk, with the majority of recorded flights heading towards Ballyroe. Flights into Annagh Fields East were also recorded.



A static herd of 60 whooper swans was observed at Annagh Bogs on the morning of 29/10/2025. These birds subsequently dispersed, flying east and north-east in groups of between 4 to 27 birds. Herds of whooper swan were seen grazing in fields to the east of the main grazing area on three occasions (one group of 23 swans on 10/02/2025 and groups of 17 and 33 on 18/02/2025); these groups left and flew towards Ballyroe around dusk on both dates. A group of 45 whooper swans grazing around Caherconnor on 10/02/2025 was disturbed by horses at 17:15 and flew south-west towards the main grazing area at Annagh Fields East.

There was one record of a herd of 80 whooper swans grazing in fields along the River Awbeg to the south-west of the main Annagh South grazing area, observed on 23/12/2024 from 15:30 onwards. No flight activity was observed in connection with this herd.



Legend

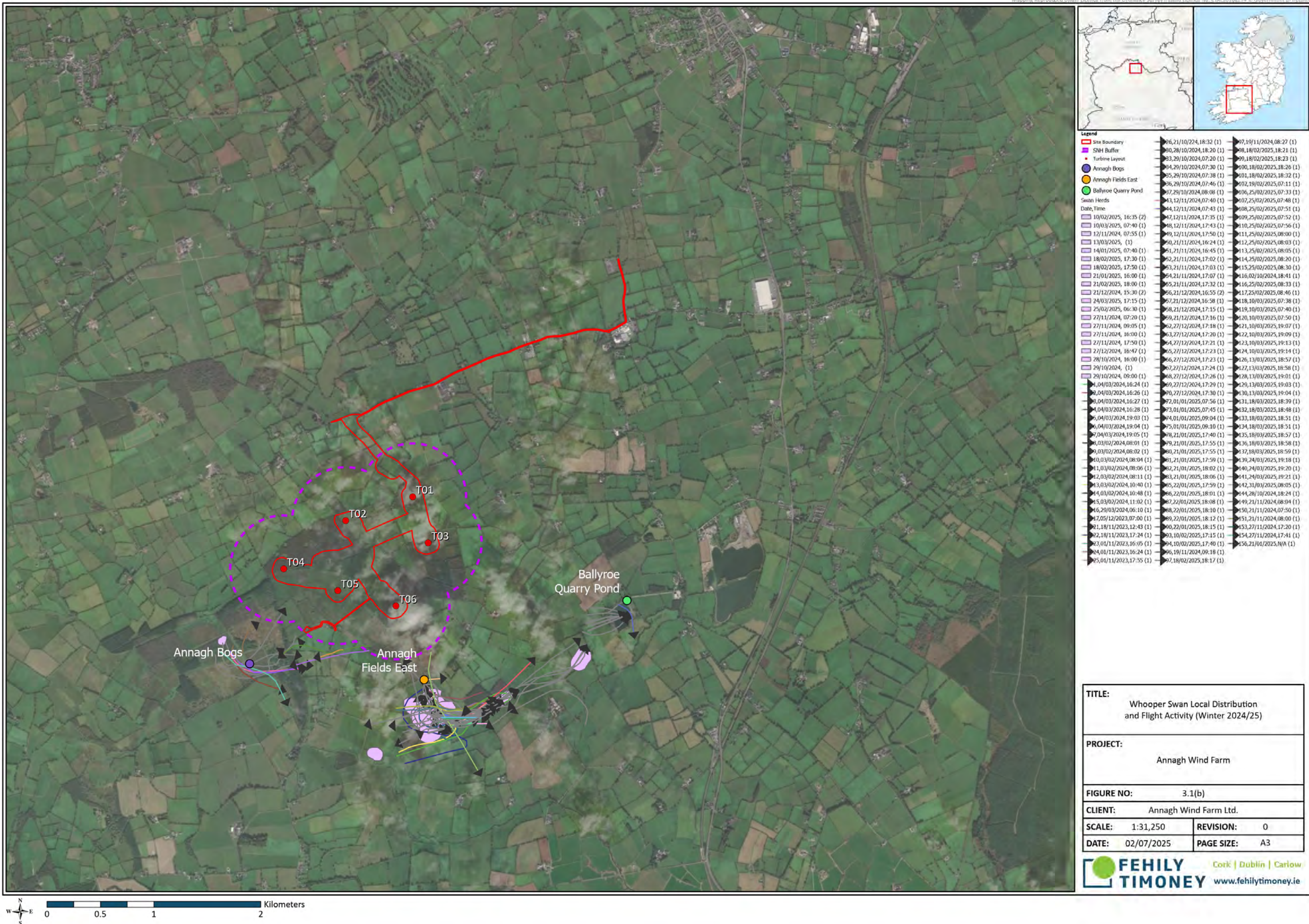
- Site Boundary
- SNH Buffer
- Turbine Layout
- Annagh Bogs
- Annagh Fields East
- Ballyroe Quarry Pond

Swan Herds

Date, Time

- 05/12/2023, 14:00
- 18/11/2023, 12:00
- 01/11/2023, 16:05
- 01/11/2023, 16:24
- 01/11/2023, 17:55
- 03/02/2024, 08:01
- 03/02/2024, 08:02
- 03/02/2024, 08:04
- 03/02/2024, 08:06
- 03/02/2024, 08:11
- 04/03/2024, 16:24
- 04/03/2024, 16:26
- 04/03/2024, 16:27
- 04/03/2024, 16:28
- 04/03/2024, 19:03
- 04/03/2024, 19:04
- 04/03/2024, 19:05
- 18/11/2023, 12:43
- 18/11/2023, 17:24
- 29/03/2024, 06:10

TITLE: Whooper Swan Local Distribution and Flight Activity (Winter 2023/24)	
PROJECT: Annagh Wind Farm	
FIGURE NO: 3.1(a)	
CLIENT: Annagh Wind Farm Ltd.	
SCALE: 1:20,000	REVISION: 0
DATE: 02/07/2025	PAGE SIZE: A3





3.1.3 Whooper Swan Activity Recorded During Hinterland Surveys

During both winters, whooper swans were detected in the surrounding hinterland, ranging from areas closer to the proposed wind farm to sites further afield. It is noted that some hinterland survey records are from sites also covered by the Swan VPs, detailed above. There is no overlap of records however between the Swan VP results and the hinterland survey results presented in this section.

During winter 2023-24, hinterland records of whooper swan (12 records in total) occurred primarily in areas further afield, with groups of between six to 49 swans observed at sites to the south and south-east of the proposed wind farm including Lisballyhea, Kilcolman Fields, Blackwater Flats, Jordanstown and Awbeg Bridge. These records, in combination with the abundance of flooded agricultural land present in the surrounding region (visible in winter season orthophotography) associated with the Awbeg Floodplain, confirm that suitable whooper swan habitat is widespread in the region to the south and south-east. One record, namely 68 whooper swans observed at Ballyhea SAC on 12/03/2024, is representative of the population which winters locally in the vicinity of the proposed wind farm; this sighting occurred near Ballyroe Quarry Pond, the area identified above in Section as a habitual roosting location for the local population.

During winter 2024-25 hinterland surveys, a higher number of whooper swan observations were recorded (41 observations). This was at least partly driven by the inclusion of more areas near the proposed wind farm (i.e. Annagh Fields East, Annagh Fields West, Caherconnor, Caherconnor East and Ballyroe Fields) in the hinterland survey during winter 2024-25, resulting in the local wintering population in the locality of the proposed wind farm being registered in hinterland survey results. Across records from sites near the proposed wind farm, the number of swans observed ranged from one to 90. At sites further afield, numbers were lower: between 4 and 35 at Jordanstown; between 6 and 17 at Lisballyhea, and between 3 and 11 at Mountbridget.

For Lisballyhea and Jordanstown which were surveyed across both winters, peak counts of whooper swan were 49 (winter 23-24) vs. 17 (winter 24-25) for Lisballyhea and 23 (winter 23-24) vs. 35 (winter 24-25) for Jordanstown. The distribution patterns observed indicate that the areas in the locality to the west, south, and east of the proposed wind farm are habitually used by wintering whooper swans, and that other areas further south and south-east are also used, confirming that suitable habitat extends into the wider region to the south and south-east.

The paucity of records at Kilcolman is notable; only one observation of whooper swan was recorded (during winter 2023-24) at Kilcolman Fields across nineteen visits during winter 2023-24 and winter 2024-25 (see Appendices 7 and 8), and suggests the SPA population may have started to favour other wintering grounds in recent years. Previous NPWS surveys (Winter 2022-23) detected the abandonment of Kilcolman Bog by wintering whooper swans, and current surveys indicate the exodus of the Kilcolman herd to winter in other locations dispersed throughout the Awbeg Floodplain could be an emerging trend.

Table 3-1: Whooper swan records from hinterland surveys

Season	Site Name	Date	Quantity	Notes
Winter 23/24	Lisballyhea	29/10/2023	49	-
Winter 23/24	Kilcolman Fields	22/12/2023	6	Fields south of bog. Min. count, view restricted by hedgerows.
Winter 23/24	Blackwater Flats	22/12/2023	5	-



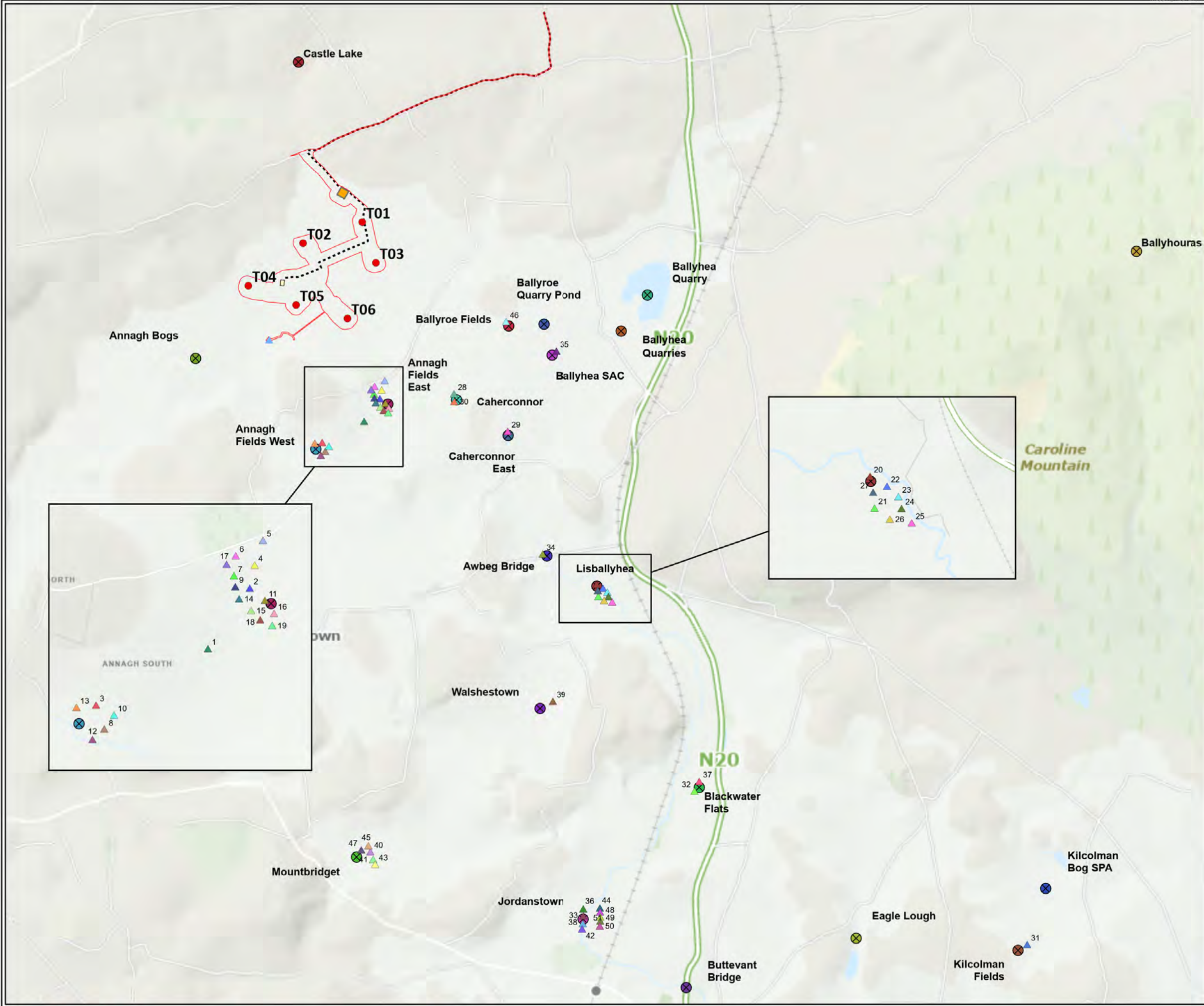
Season	Site Name	Date	Quantity	Notes
Winter 23/24	Lisballyhea	08/01/2024	33	-
Winter 23/24	Jordanstown	26/02/2024	23	-
Winter 23/24	Awbeg Bridge	26/02/2024	7	-
Winter 23/24	Lisballyhea	26/02/2024	17	-
Winter 23/24	Lisballyhea	12/03/2024	14	-
Winter 23/24	Ballyhea SAC	12/03/2024	68	-
Winter 23/24	Jordanstown	12/03/2024	16	-
Winter 23/24	Lisballyhea	23/03/2024	20	-
Winter 23/24	Blackwater Flats	23/03/2024	48	-
Winter 24/25	Annagh Fields East	22/10/2024	20	-
Winter 24/25	Annagh Fields East	21/10/2024	27	Including 10 immature whooper swans.
Winter 24/25	Annagh Fields West	25/10/2024	37	Including 10 immature whooper swans.
Winter 24/25	Annagh Fields East	06/11/2024	59	-
Winter 24/25	Annagh Fields East	06/11/2024	51	Min. count
Winter 24/25	Annagh Fields East	21/11/2024	84	Grazing herd
Winter 24/25	Annagh Fields East	21/11/2024	c.81	-
Winter 24/25	Annagh Fields West	27/11/2024	5	Poor vis. Possible undercount.
Winter 24/25	Annagh Fields East	27/11/2024	58	-
Winter 24/25	Jordanstown	27/11/2024	18	-
Winter 24/25	Annagh Fields West	23/12/2024	90	Foraging herd



Season	Site Name	Date	Quantity	Notes
Winter 24/25	Annagh Fields East	23/12/2024	28	Foraging herd
Winter 24/25	Walshestown	23/12/2024	5	-
Winter 24/25	Mountbridget	27/12/2024	6	-
Winter 24/25	Lisballyhea	27/12/2024	6	-
Winter 24/25	Annagh Fields West	27/12/2024	1	-
Winter 24/25	Annagh Fields West	01/01/2025	1	-
Winter 24/25	Annagh Fields East	01/01/2025	6	In flooded area, south of river
Winter 24/25	Caherconnor	01/01/2025	53	Disturbed by horses
Winter 24/25	Caherconnor	01/01/2025	2	Flying in from east
Winter 24/25	Mountbridget	21/01/2025	11	-
Winter 24/25	Jordanstown	21/01/2025	6	-
Winter 24/25	Mountbridget	27/01/2025	3	--
Winter 24/25	Jordanstown	27/01/2025	10	
Winter 24/25	Lisballyhea	27/01/2025	17	-
Winter 24/25	Caherconnor East	27/01/2025	6	-
Winter 24/25	Caherconnor	27/01/2025	23	-
Winter 24/25	Annagh Fields East	27/01/2025	9	-
Winter 24/25	Jordanstown	10/02/2025	32	-
Winter 24/25	Mountbridget	10/02/2025	4	-
Winter 24/25	Annagh Fields East	10/02/2025	27	-



Season	Site Name	Date	Quantity	Notes
Winter 24/25	Ballyroe Fields	10/02/2025	45	-
Winter 24/25	Mountbridget	18/02/2025	8	-
Winter 24/25	Annagh Fields East	18/02/2025	24	-
Winter 24/25	Caherconnor	18/02/2025	33	-
Winter 24/25	Jordanstown	13/03/2025	35	-
Winter 24/25	Jordanstown	17/03/2025	31	-
Winter 24/25	Jordanstown	18/03/2025	29	-
Winter 24/25	Annagh Fields East	18/03/2025	48	-
Winter 24/25	Jordanstown	24/03/2025	4	-
Winter 24/25	Annagh Fields East	30/03/2025	11	-



Legend	
Site Boundary	11,23/12/2024: 28 WS
Turbine Layout	12,27/12/2025: 1 WS
Met Mast	13,01/01/2025: 1 WS
Substation	14,01/01/2025: 6 WS
Construction Compound	15,27/01/2025: 9 WS
Underground Cable Route	16,10/02/2025: 27 WS
ID,Name	17,18/02/2025: 24 WS
1,Annagh Bogs	18,18/03/2025: 48 WS
2,Annagh Fields East	19,30/03/2025: 11 WS
3,Annagh Fields West	20,29/10/2023: 49 WS
4,Awbeg Bridge	21,08/01/2024: 33 WS
5,Ballyheha Quarries	22,26/02/2024: 17 WS
6,Ballyheha Quarry	23,12/03/2024: 14 WS
7,Ballyheha SAC	24,23/03/2024: 20 WS
8,Ballyhours	25,27/12/2024: 6 WS
9,Ballyroe Fields	26,27/01/2025: 17 WS
10,Ballyroe Quarry Pond	27,10/02/2025: 32 WS
11,Blackwater Flats	28,01/01/2025: 55 WS
12,Buttevant Bridge	29,27/01/2025: 6 WS
13,Caherconnor	30,27/01/2025: 23 WS
14,Caherconnor East	31,22/12/2023: 6 WS
15,Castle Lake	32,22/12/2023: 5 WS
16,Eagle Lough	33,26/02/2024: 23 WS
17,Jordanstown	34,26/02/2024: 7 WS
18,Kilcolman Bog SPA	35,12/03/2024: 68 WS
19,Kilcolman Fields	36,12/03/2024: 16 WS
20,Lisballyheha	37,23/03/2024: 48 WS
21,Mountbridget	38,27/11/2024: 18 WS
22,Walshestown	39,23/12/2024: 5 WS
ID, Details	40,27/12/2024: 6 WS
1,22/10/2024: 20 WS	41,21/01/2025: 11 WS
2,21/10/2024: 27 WS	42,21/01/2025: 6 WS
3,25/10/2024: 37 WS	43,27/01/2025: 3 WS
4,06/11/2024: 59 WS	44,27/01/2025: 10 WS
5,06/11/2024: 51 WS	45,10/02/2025: 4 WS
6,21/11/2024: 84 WS	46,10/02/2025: 45 WS
7,21/11/2024: 81 WS	47,18/02/2025: 8 WS
8,27/11/2025: 5 WS	48,13/03/2025: 35 WS
9,27/11/2024: 58 WS	49,17/03/2025: 31 WS
10,23/12/2024: 90 WS	50,18/03/2025: 29 WS
	51,24/03/2025: 4 WS

TITLE:
Whooper Swan Hinterland Records

PROJECT:
Annagh Wind Farm

FIGURE NO: 3.2

CLIENT: Annagh Wind Farm Ltd.

SCALE: 1:40,000

REVISION: 0

DATE: 30/06/2025

PAGE SIZE: A3

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3.1.4 Whooper Swan Nocturnal Audio Records

This section details the results of audio survey for nocturnal whooper swan activity based on nocturnal flight calls. The results are graphed below by season/location to show the temporal distribution of calls, which indicates the windows during which nocturnal migration occurred, and figures showing the spatial distribution of whooper swan call registrations across the detector locations.

A registration is classified as a discrete detection of whooper swan flight call(s). An individual registration can range from a single swan calling to a group calling and as such it is not possible to give counts of individuals based on audio data. As such, a registration, while not definitive, nonetheless provides a useful index in that higher numbers of registrations equate to higher numbers and/or more groups of swans flying over, while lower numbers of registrations indicate the opposite.

Furthermore, on listening back to individual registrations, distance (based on perceived loudness/quietness of the calls) can be qualitatively estimated (e.g. a listener can distinguish between calls overhead and calls in the distance), as can number of swans (listener can distinguish between calls of one or several swans vs. a large group).

The results are discussed under separate headings for each winter season surveyed.



3.1.4.1 Winter 2023-24

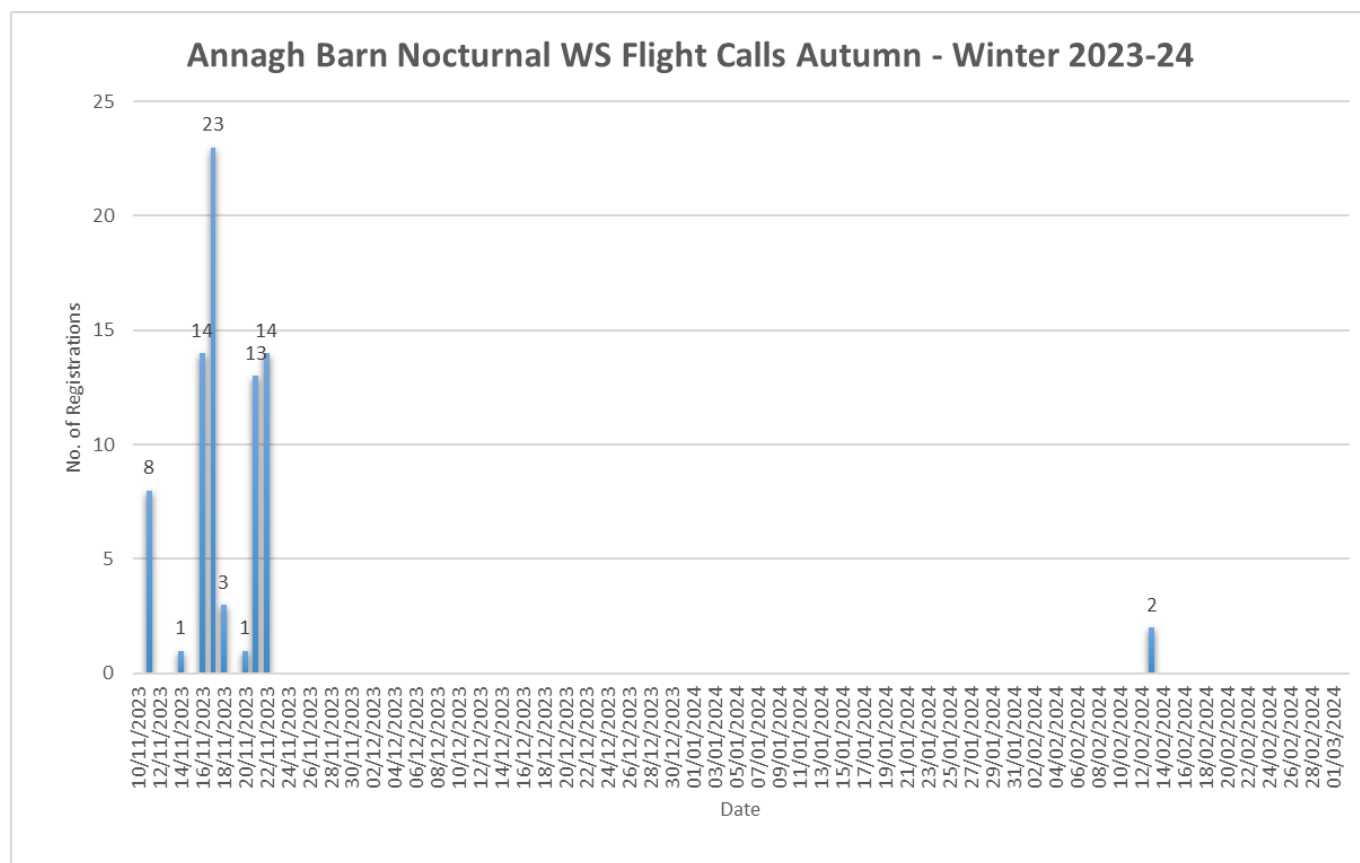


Plate 3-1: No. of whooper swan nocturnal flight call registrations recorded at Annagh Barn during autumn- winter 2023-24

Whooper swan nocturnal flight calls were recorded by the Annagh Barn detector on: 11/11/2023 (8 registrations); 14/11/2023 (1 registration); 16/11/2023 (14 registrations); 17/11/2023 (23 registrations); 18/11/2023 (3 registrations); 20/11/2023 (1 registration); 21/11/2023 (13 registrations) and 22/11/2023 (14 registrations). As such, based on detection of nocturnal flight calls the migration window detected at this location was between 11/11/2023 and 22/11/2023, with a peak in activity on 17/11/2023, and the majority of activity recorded between 16/11/2023 and 22/11/2023. The audio recordings of whooper swan flight calls encompassed individual birds, small groups and larger groups, and based on qualitative analysis of call volumes included both groups flying over or close to the detector and more distant groups.

In addition to the autumn migration activity window described above, there two registrations of distant groups calling were recorded on 13/02/2024 at 00:24 and 02:42. The timing of this activity is unlikely to be indicative international migration, and is considered to be representative of local movement between grazing/roosting sites.

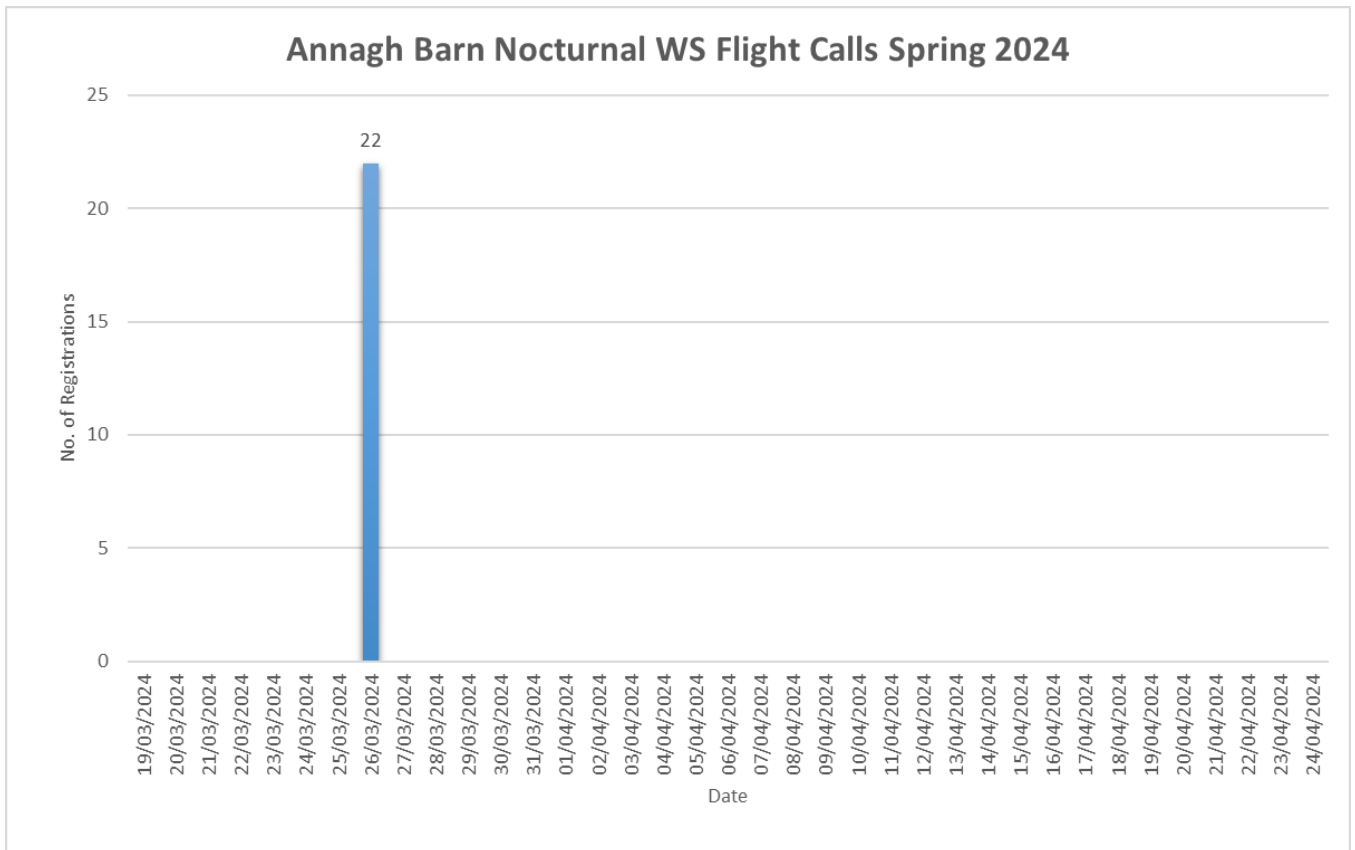


Plate 3-2: No. of whooper swan nocturnal flight call registrations recorded at Annagh Barn during spring 2024

Whooper swan nocturnal flight calls were recorded by the Annagh Barn detector on 26/03/2024, with a total of 22 registrations detected between 22:07 and 23:47. The majority of the recordings detected distant groups; however, some recordings included both distant and closer groups calling, indicating multiple dispersed groups migrating simultaneously. No registrations were detected on any other date at Annagh Barn during spring 2024. This, in conjunction with the call patterns detected,

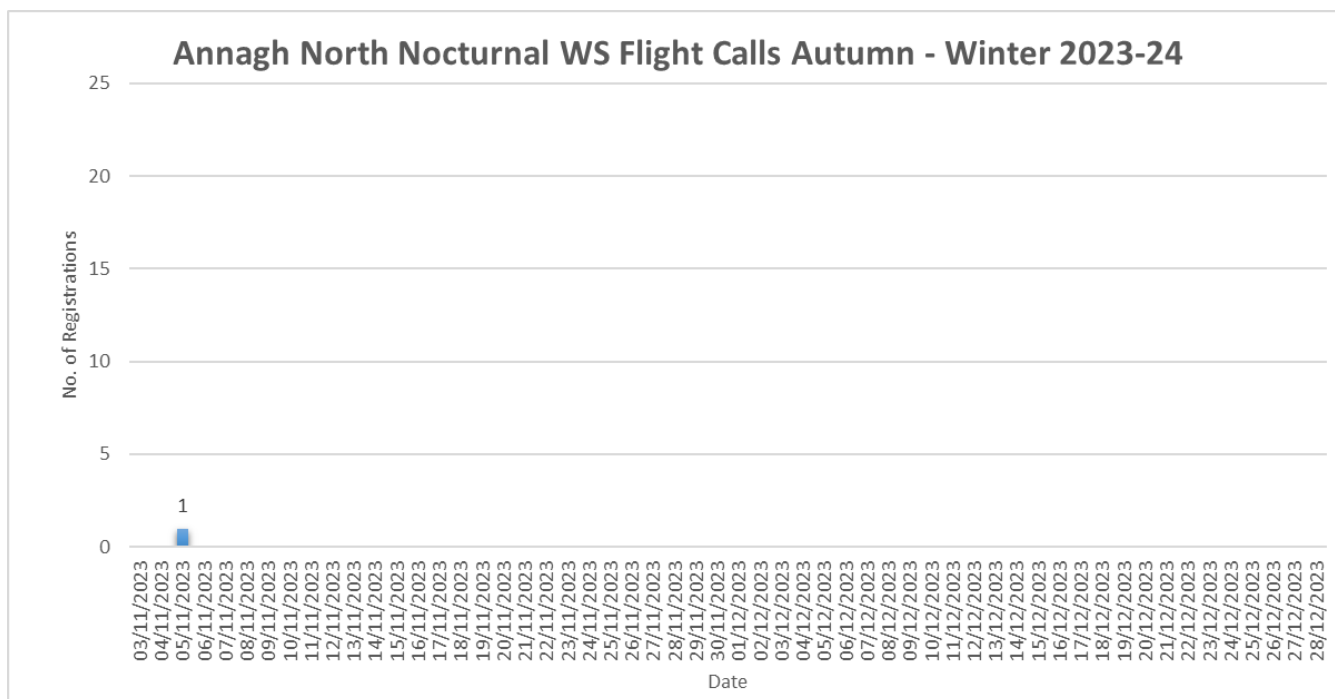


Plate 3-3: No. of whooper swan nocturnal flight call registrations recorded at Annagh North during autumn- winter 2023-24

The Annagh North detector (equivalent to Annagh 2 for subsequent deployments) registered whooper swan flight calls on one occasion only: 05/11/2023 at 00:59. The calls recorded in this registration indicated a group of swans, mid-distance from the detector. No other flight calls were recorded at Annagh North during autumn - winter 2023-24. The low number of registrations at Annagh North during this period in contrast with the relatively higher number at Annagh Barn, is likely to indicate swans approaching from the north-west or north-east (due to low number of registrations on northern detector and higher number of registrations on southern detector at Annagh Barn).

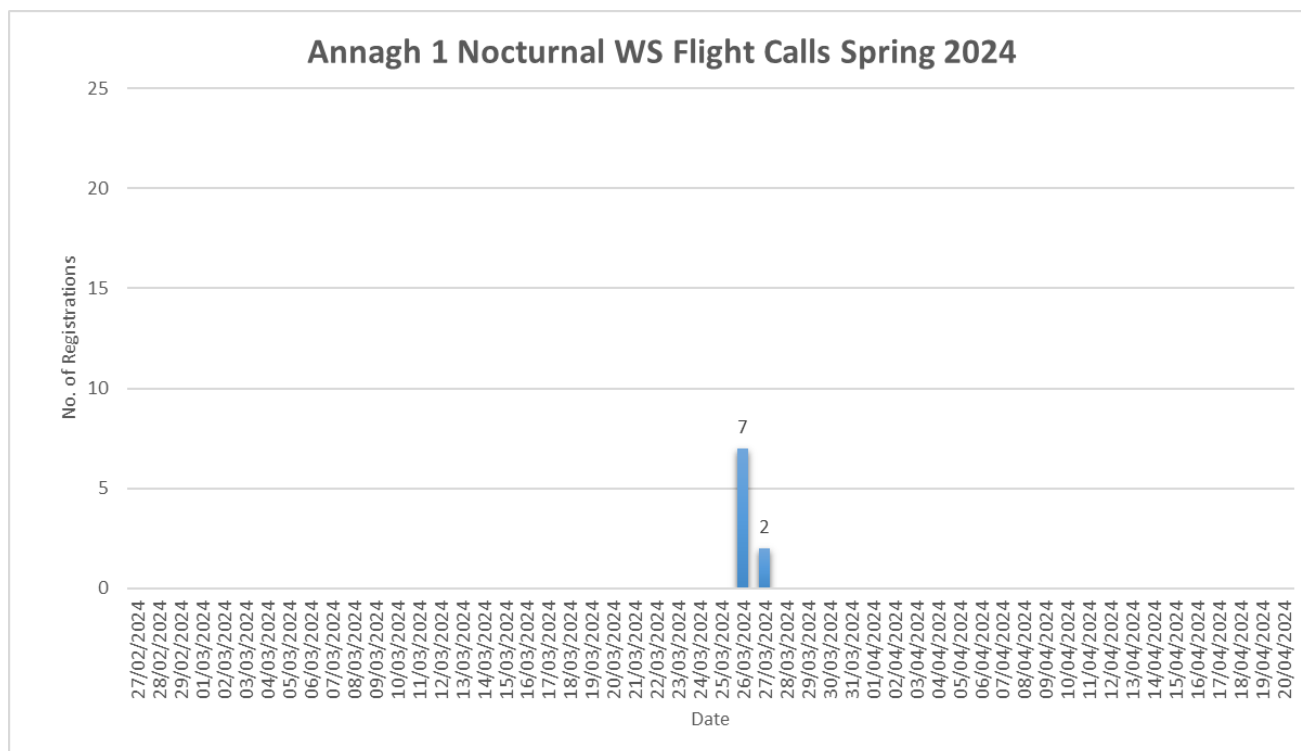


Plate 3-4: No. of whooper swan nocturnal flight call registrations recorded at Annagh 1 during spring 2024

Whooper swan nocturnal flight calls were recorded by the Annagh 1 detector on 26/03/2024 (7 calls between 22:08 and 23:48) and 27/03/2024 (2 calls, one at 00:19 and the other at 00:22). As such, all nine calls across both these dates occurred on the same night. The majority of the recordings detected distant groups; however, one recording detected a pair or small group closer to the detector. Both the timing of registrations, and the pattern of calls indicating multiple dispersed groups migrating simultaneously align with the results from Annagh Barn for this period.

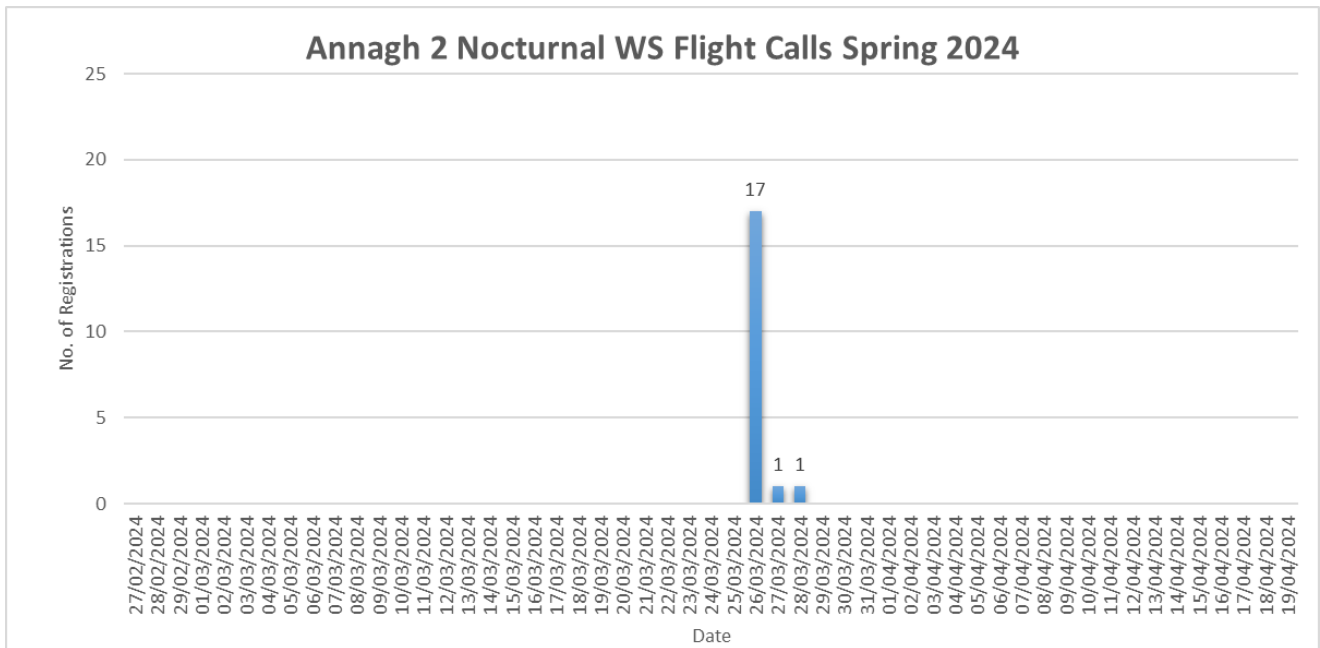


Plate 3-5: No. of whooper swan nocturnal flight call registrations recorded at Annagh 2 during spring 2024

Whooper swan nocturnal flight calls were recorded by the Annagh 2 detector on: 26/03/2024 (17 registrations between 22:00 and 23:48); 27/03/2024 (1 registration at 00:42) and 28/03/2024 (1 registration at 20:52). Qualitative analysis indicated all registrations at Annagh 2 during this period were distant groups. The registrations on 26/03/2024 and 27/03/2024 occurred on the same night; as such there were 18 registrations on the night of the 26th/27th March, and just one on the 28th March.

The timing of the majority of registrations for this period at Annagh 2 align with the results from both Annagh Barn and Annagh 1 for this period.

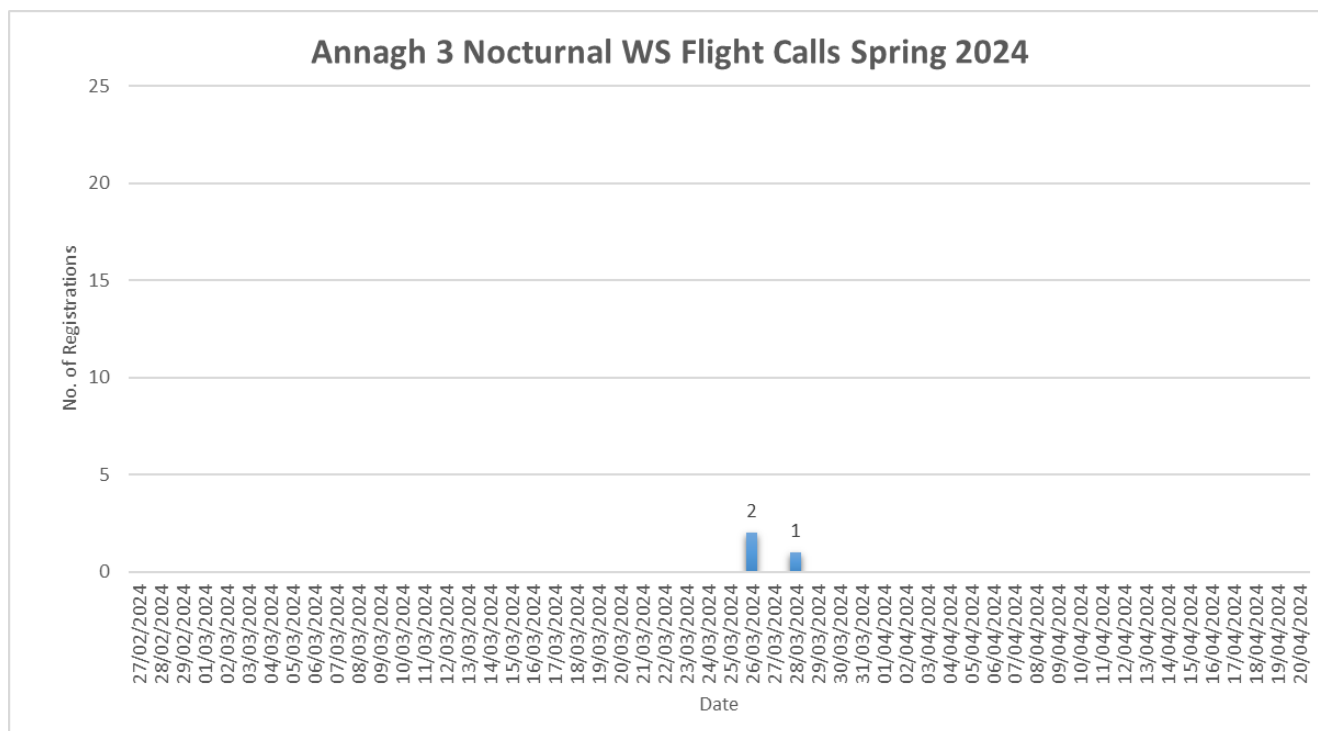


Plate 3-6: No. of whooper swan nocturnal flight call registrations recorded at Annagh 3 during spring 2024

Whooper swan nocturnal flight calls were recorded by the Annagh 2 detector on: 26/03/2024 (2 registrations, at 22:07 and 23:45); and 28/03/2024 (1 registration at 20:51). Qualitative analysis indicated all registrations at Annagh 3 during this period were distant groups.

The occurrence of registrations on 26/03/2024 for this period at Annagh 2 aligns with the results from both Annagh Barn, Annagh 1 and Annagh 2 for this period. The single registration on 28/03/2024 aligns closely with the registration at Annagh 2 during this period: the registration at Annagh 3 occurred at 20:51:52, while the registration at Annagh 2 located c. occurred eight seconds later at 20:52:00.

3.1.4.1.1 Summary of Winter 2023-24 Patterns

The timing of nocturnal whooper swan flight call registrations across the two detectors active during autumn/winter 2023-24 (Annagh Barn and Annagh North) indicated (based on nocturnal flight call activity) the arrival of wintering whooper swans in this area occurred between 05/11/2023 and 22/11/2023.

Timing of registrations during the spring migration period (recorded across Annagh barn and Annagh 1-3) were markedly focused around the night of 26/03/2024 - 27/03/2024, with all but two registrations from this period recorded on the same night indicating whooper swans leaving the area en masse within a short window. The remaining two registrations occurred on the following night, 28/03/2024.

Figure 3-3 shows the spatial distribution of whooper swan registrations during the autumn and spring migration periods at either end of winter 2023-24. During autumn 2023, the majority of whooper swan registrations were recorded at Annagh Barn. During spring 2024, registrations were detected at all locations, with Annagh Barn and Annagh 2 recording the highest number.

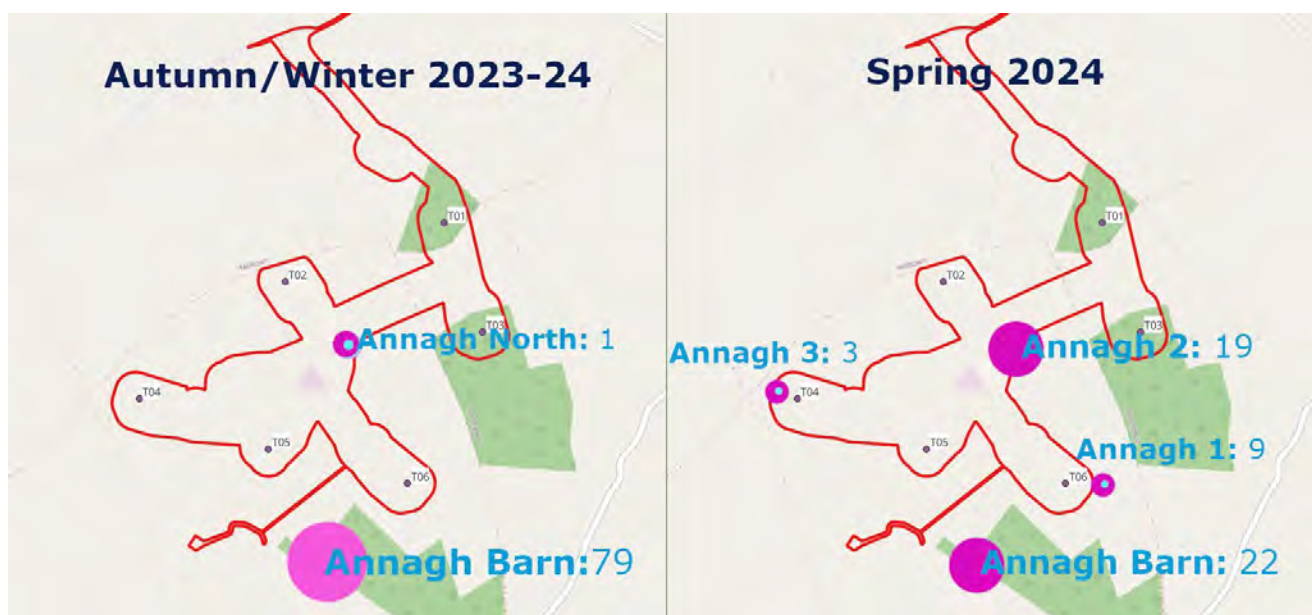


Figure 3-4: Spatial distribution of whooper swan registrations winter 2023-24

3.1.4.2 Winter 2024 - 25

3.1.4.2.1 Annagh Barn: Winter 2024 - 25

There were no whooper swan registrations at Annagh Barn during winter 2024-25, including during the Autumn and spring migration periods.

3.1.4.2.2 Annagh 1: Winter 2024 - 25

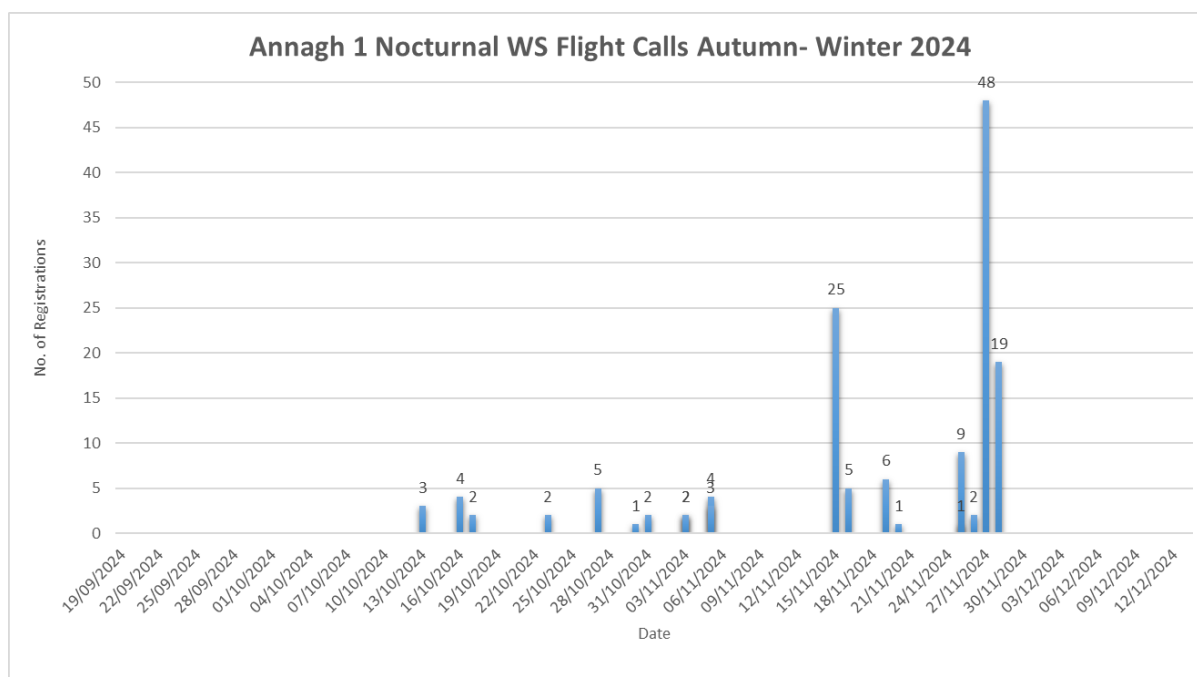


Plate 3-7: No. of whooper swan nocturnal flight call registrations recorded at Annagh 1 during autumn-winter 2024



The migration window based on nocturnal flight calls recorded at Annagh 1 was larger than the largest window (Annagh Barn) detected in winter 2023-24, extending between 13/10/2024 and 28/11/2024. There were relatively low numbers of registrations between 13/10/2024 and 05/11/2024 (between two to five per night), followed by a spike on the night of 15/11/2024 - 16/11/2024 with 30 registrations during the same night across these two dates. Activity dropped off again after this, with ranging between one and nine per night between 19/11/2024 and 26/11/2024. A second, larger spike occurred on the night of 27/11/2024 - 28/11/2024, with a total of 67 registrations during the same night across these two dates. There were no further registrations after this at Annagh 1 during autumn/winter 2024-25.

Examination of audio clips for this period indicate that registrations between 13/10/2024 and 27/10/2024 were comprised of individuals or small groups calling, with distance ranging from overhead to distant. From 30/10/2024 onwards, calls encompassing a mix of smaller and larger groups were detected. During the first spike on 15/11/2024 - 16/11/2024, audio clips indicate a stream of smaller groups arriving between 23:04 and 00:45, the majority of which were distant from the detector. A similar pattern occurred during the second larger spike (27/11/2024 - 28/11/2024), with distant groups arriving regularly between 17:35 and 03:09, although these occurred over a longer timeframe, with arrival of groups clustered around 29 distinct periods.

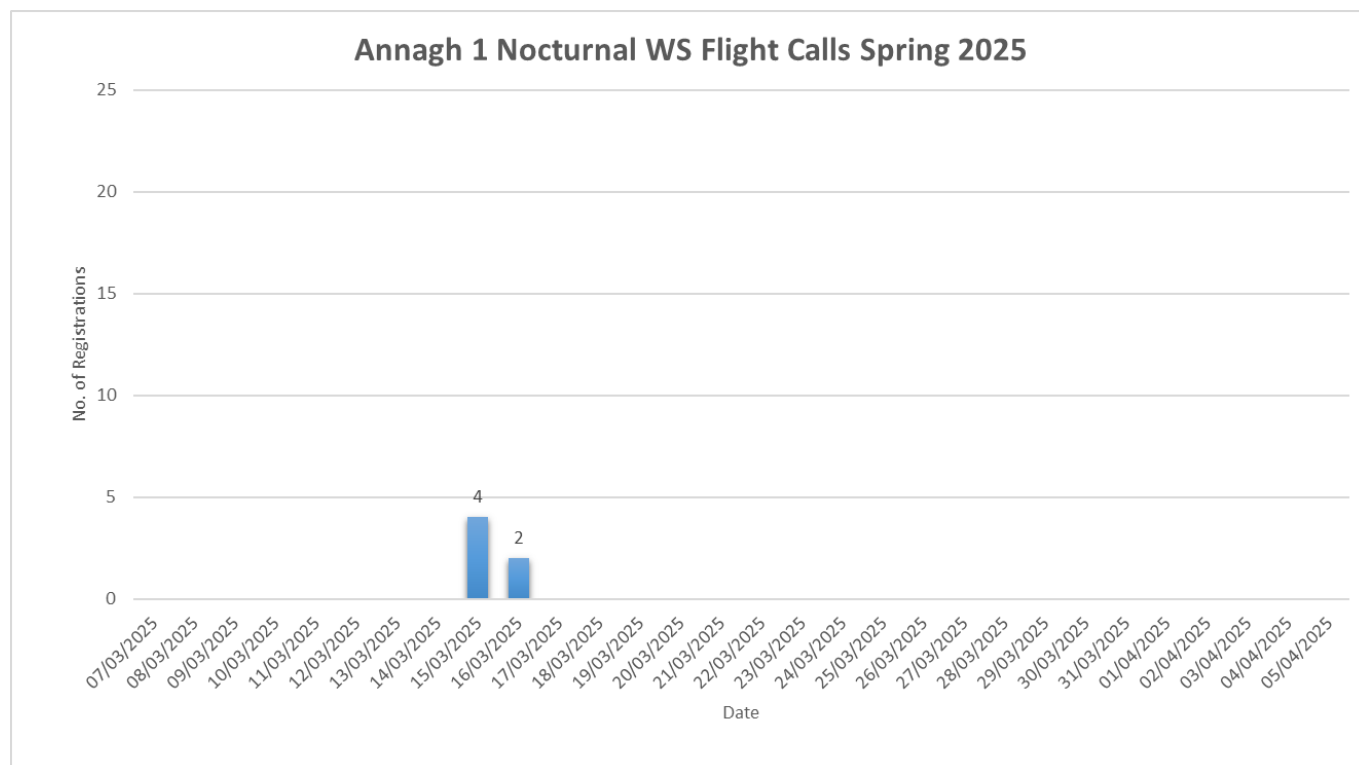


Plate 3-8: No. of whooper swan nocturnal flight call registrations recorded at Annagh 1 during spring 2025

During spring 2025, all registrations (six in total) recorded at Annagh 1 occurred on two consecutive nights (15/03/2025 and 16/03/2025). These registrations were comprised of distant groups calling.



3.1.4.2.3 Annagh 2: Winter 2024 - 25

There were no whooper swan registrations at Annagh 2 during autumn/winter 2024.

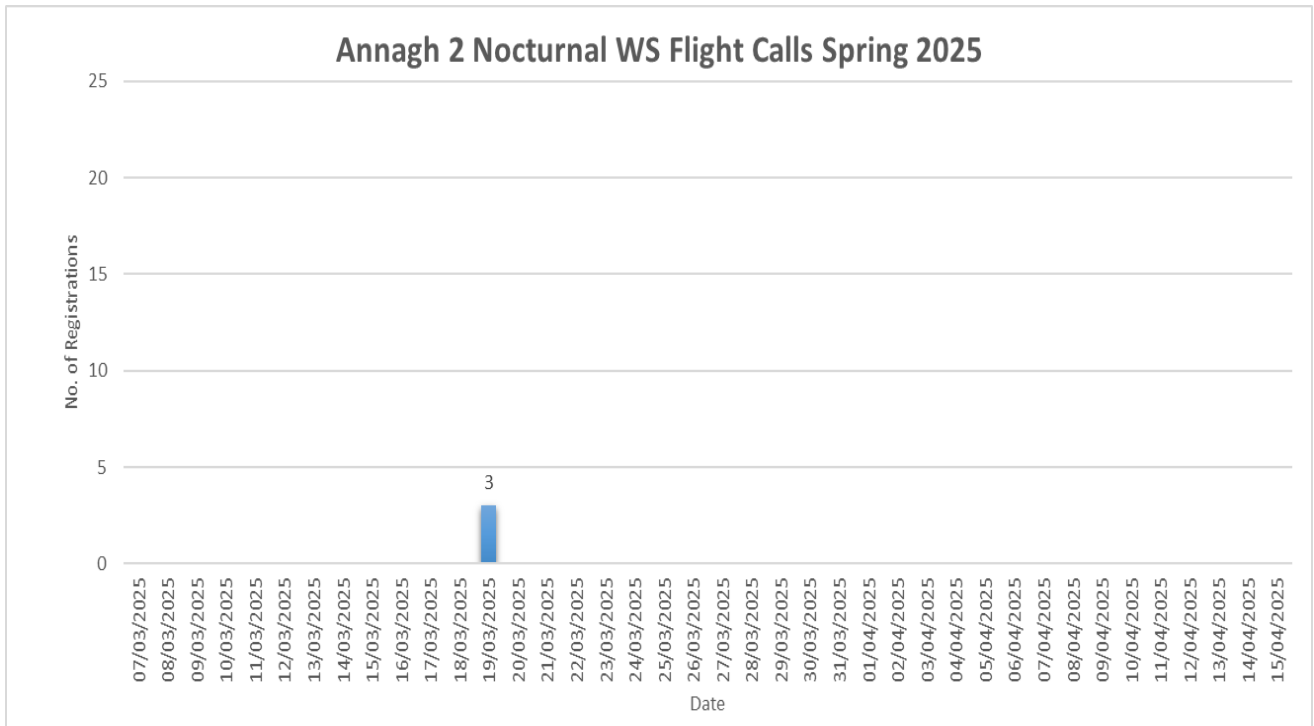


Plate 3-9: No. of whooper swan nocturnal flight call registrations recorded at Annagh 1 during spring 2025

During spring 2025, all registrations (three in total) recorded at Annagh 2 occurred on one night (19/03/2025) at 01:41, 01:41, and 02:03. These registrations were comprised of distant groups calling.



3.1.4.2.4 Annagh 3: Winter 2024 - 25

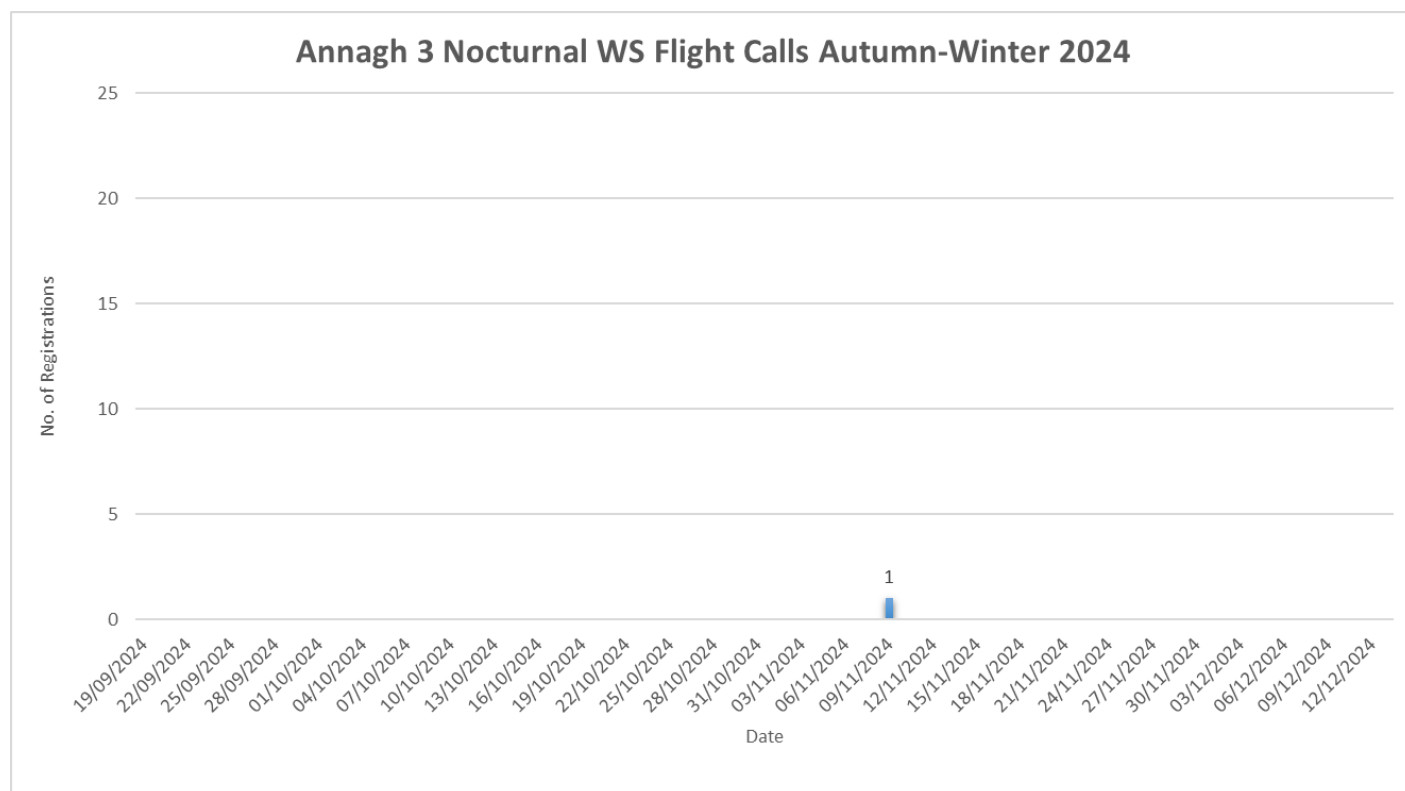


Plate 3-10: No. of whooper swan nocturnal flight call registrations recorded at Annagh 3 during autumn-winter 2024

There was only one registration at Annagh 3 during winter 2024/25, comprised of a single distant call recorded on 09/11/2024.

There were no registrations at Annagh 3 during Spring 2025.

3.1.4.2.5 Summary of Winter 2024-25 Patterns

The majority of autumn/winter registrations were recorded at Annagh 1, where the window identified for nocturnal arrival of wintering whooper swans extended between 13/10/2024 and 28/11/2024. Outside of these autumn/winter 2024-25 registrations at Annagh 1, the only other registration during this period was a single distant call recorded at Annagh 3 on 09/11/2024, which is within the migration window detected at Annagh 1.

There were relatively few registrations during the spring 2025 migration period, limited to six registrations recorded at Annagh 1 over two consecutive nights (15/03/2025 and 16/03/2025) three registrations at Annagh 2 during one night (19/03/2025).

Figure 3-4 shows the spatial distribution of whooper swan registrations during the autumn and spring migration periods at either end of winter 2024-25. During autumn 2024, the majority of whooper swan registrations were again recorded at Annagh Barn. During spring 2025, registrations were detected Annagh 1 and Annagh 2 only. There were less registrations in spring 2025 vs. spring 2024.

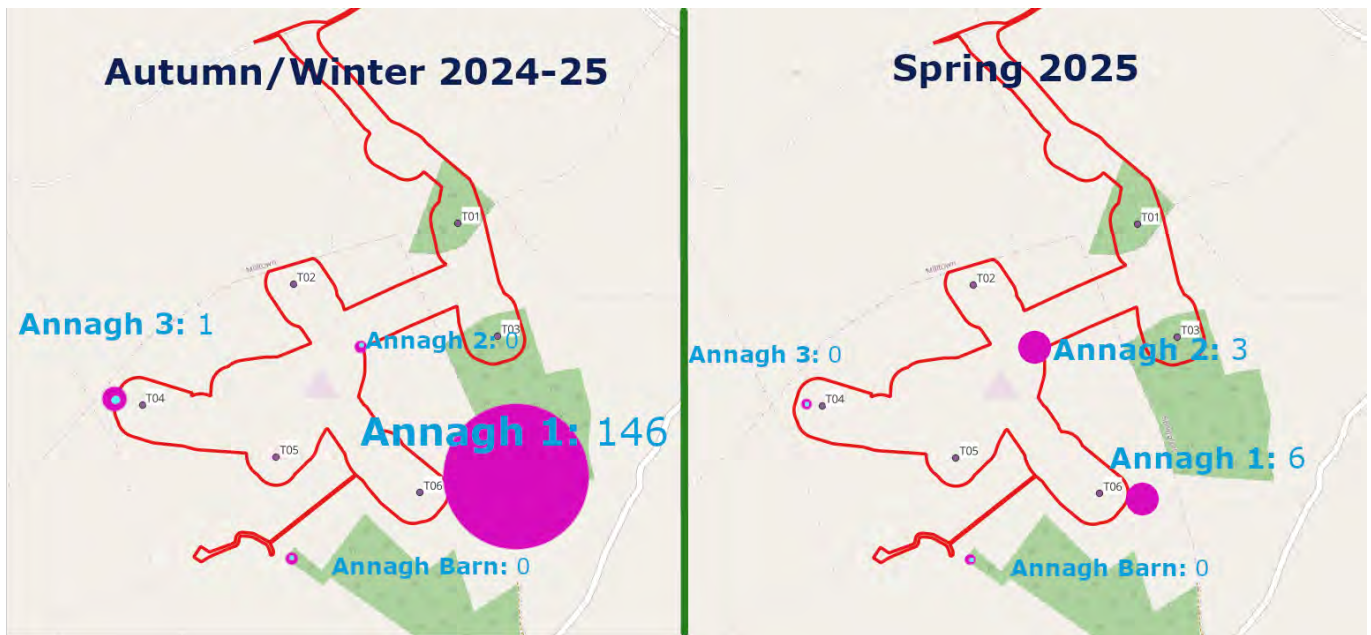


Figure 3-5: Spatial distribution of whooper swan registrations winter 2024-25

3.2 Other Target Species

While the primary focus of surveys was to gather detailed information on whooper swan activity, distribution and migration phenology, activity of other target species was also recorded. VP survey methodology for VPs 1 and 2 covering the proposed wind farm site was the same as for pre-planning surveys and as such followed SNH (2017) guidance, including the recording of all target species.

Other target species were also recorded when they occurred during swan VP and hinterland surveys. The activity of other target species recorded during winter 2023-24 and winter 2024-25 surveys is presented in this section.

3.2.1 Other Target Species Activity Recorded During Wind Farm Site VP Surveys

This section details the activity of other target species detected at the proposed wind farm site (covered by VP1 and VP2) during winter 2023-24 and winter 2024-25.

The target species recorded, conservation status, summary activity statistics and seasonality of records are detailed in Table 3-2. Individual observations are described in Appendix 2 and associated flight lines are mapped in Appendix 3.

Aside from stock dove, teal, and widgeon, no additional species beyond those detected during pre-planning VP surveys were detected, and activity patterns remained similar for the species recorded during both current and pre-planning VP surveys.

A flock of 30 teal were observed flying north-west towards the proposed wind farm site from the direction of Annagh bogs on 12/02/2024, flying within the 0-25m height band for 35 seconds. Another flock, comprising 35 teal, were observed flying with the 0-25m height band for 47 seconds on 16/01/2024. This flock flew back and forth along an east-west axis between T5 and T6, before landing in a drainage channel. It is noted that all teal flight activity occurred below potential collision height (lowest proposed blade tip height = 25m).



Stock dove were recorded on two occasions during winter 2023-24 VP surveys. One record involved two stock doves flying south to north outside the 500m buffer zone in the 25-50m height band on 12/02/2024. The other record involved a single bird flying north-south through the 500m buffer zone in the 100-175m height band on 10/10/2023.

Wigeon was recorded on one occasion during winter 2023-24 VP surveys, whereby a group of 16 ducks were observed commuting west to east within the 500m buffer zone on 02/11/2023, flying within the 100-175m height band.

A total of five hen harrier sightings were recorded. There was one hen harrier record during winter 2023-24, consisting of a female hunting in agricultural fields south of the proposed wind farm on 16/01/2024. This observation started at 16:00, lasted for 89 seconds and flight activity occupied the 0-25m, 25-50m, 50-100m and >175m height bands.

A hen harrier was seen briefly flying over rough agricultural land south of T5 on 23/12/2024, within the 0-25m height band. This observation occurred at 12:26 and lasted only three seconds. There were two observations in short succession on 25/01/2025 at 13:18 and 13:30, both involving the same immature male hunting and perching in rough agricultural land south of T5. All activity was within the 0-25m height band. One observation lasted >240 seconds, while the other lasted >300 seconds. A hen harrier was observed flying low over intensively managed grassland north of VP2 on 20/12/2024 at 15:08, flying for 15 seconds in the 0-15m height band before moving out of sight with the surveyor noting this bird potentially landed in a hedgerow.

No hen harrier roosting or behaviour indicative of roosting was observed; hen harrier activity was limited to wintering birds hunting or traversing the local area. As such, current observations indicate the baseline with regards to hen harrier site usage patterns remains unchanged.

Table 3-2: Other target species recorded during Annagh wind farm vantage point surveys during winter 2023-24 and winter 2024-25

Species	BoCCI	Annex I	No. of Records	
			Winter 2023-24	Winter 2024-25
Black-headed Gull	Amber	No	1	0
Buzzard	Green	No	11	11
Grey Heron	Green	No	17	2
Hen Harrier	Amber	Yes	1	4
Kestrel	Red	No	10	5
Lesser Black-backed Gull	Amber	No	6	0
Little Egret	Green	Yes	5	1
Mallard	Amber	No	2	0
Peregrine	Green	Yes	1	0
Snipe	Red	No	20	0
Sparrowhawk	Green	No	6	1



Species	BoCCI	Annex I	No. of Records	
			Winter 2023-24	Winter 2024-25
Stock Dove	Red	No	2	0
Teal	Amber	No	2	0
Wigeon	Amber	No	1	0

3.2.2 Other Target Species Activity Recorded During Swan VP Surveys

Apart from whooper swan, the second most frequently recorded target species observed during swan VP surveys was greylag goose. Greylag goose is Amber-listed; however, it is noted this applies to the wintering population which migrates from Iceland, rather than the feral population which is resident year-round. The population at Annagh is known to be a feral/resident population (Burke et al., 2022).

A total of 20 records of greylag goose were made during swan VP surveys, with observations across all three swan VPs. The location where greylag geese were most frequently recorded was at Annagh Fields East, similarly to whooper swan. Greylag geese occurred alongside whooper swans, frequenting the same grazing and roost sites, and displaying similar distribution and activity patterns to the local wintering whooper swan population (see Appendices 4 and 5).

Other target species detected during swan VP surveys included a number of ducks: shoveler (red-listed) (recorded twice at Annagh Bogs, during October and April and once at Annagh Fields East during April); teal (amber-listed) (recorded at Annagh Bogs during October and April, Ballyroe Quarry pond in November and Annagh Fields East in April); wigeon (amber-listed) (recorded at Annagh Bogs during October and March, Ballyroe Quarry pond in November and Annagh Fields East in April) and mallard (amber-listed) (recorded at Annagh Bogs during October, March and April, Ballyroe Quarry pond in November and Annagh Fields East in April).

Red-listed kestrel was recorded on two occasions, with individuals seen in flight at Annagh Fields East in December 2023 and at Ballyroe Quarry Pond in March 2025.

3.2.3 Other Target Species Activity Recorded During Hinterland Surveys

This section details the occurrence of other target species (additional to whooper swan) recorded during hinterland surveys. It is noted that some overlap in survey effort between swan VP surveys and hinterland surveys occurred; however, overlapping records from swan VP surveys have not been duplicated in this section.



Table 3-3: Other target species recorded during hinterland surveys during winter 2023-24 and winter 2024-25

Species	BoCCI	Annex I	No. of Records		Sites Recorded
			Winter 2023-24	Winter 2024-25	
Black-headed Gull	Amber	No	2	1	Glanmore Flats Ballyhea Quarry Lisballyhea
Buzzard	Green	No	4	1	Awbeg and Buttevant Bridges Eagle Lough Caherconnor
Coot	Amber	No	7	5	Kilcolman Bog SPA Eagle Lough
Cormorant	Amber	No	3	4	Awbeg Bridge Ballyhea Quarry Buttevant Bridge
Curlew	Red	No	4	2	Ballyhea Quarries Ballyhea Quarry
Dunlin	Red	No	2	0	Lisballyhea Ballyhea Quarry
Gadwall	Amber	No	2	0	Kilcolman Bog SPA
Great Crested Grebe	Amber	No	2	0	Ballyhea Quarry
Great White Egret	Green/NA ¹	Yes	1	0	Awbeg Bridge
Grey Heron	Green	No	4	3	Blackwater Flats Ballyhea Quarry Buttevant Bridge Kilcolman Bog SPA
Greylag Goose	Amber ²	No	9	11	Glanmore Flats Lisballyhea Caherconnor Kilcolman Bog SPA Kilcolman Fields Lisballyhea Annagh Fields West Annagh Bogs

¹ Occurs in Ireland as occasional winter vagrant

² Greylag population at Annagh is known to be a feral/resident population (Burke et al., 2022).



Species	BoCCI	Annex I	No. of Records		Sites Recorded
			Winter 2023-24	Winter 2024-25	
					Annagh Fields East
Hen Harrier	Amber	Yes	3	0	Ballyhouras Kilcolman Bog SPA
Herring Gull	Amber	No	1	0	Ballyhea Quarry
Kestrel	Red	No	2	2	Blackwater Flats Awbeg Bridge Caherconnor Lisballyhea
Kingfisher	Amber	Yes	1	1	Buttevant Bridge
Lapwing	Red	No	3	0	Lisballyhea Ballyhea Quarry Glanmore Flats
Lesser Black-backed Gull	Amber	No	5	2	Glanmore Flats Lisballyhea Caherconnor Ballyhea Quarry Buttevant Bridge
Little Egret	Green	Yes	8	4	Awbeg and Buttevant Bridges Blackwater Flats Caherconnor Buttevant Bridge Blackwater Flats Glanmore Flats Walshestown Annagh Fields East Ballyroe Quarry Pond
Little Grebe	Green	No	4	4	Eagle Lough Kilcolman Bog SPA
Mallard	Amber	No	20	16	Eagle Lough Lisballyhea Ballyhea Quarry Castle Lake Kilcolman Bog SPA Kilcolman Fields Awbeg Bridge Ballyhouras Buttevant Bridge Annagh Bogs Ballyroe Quarry Pond



Species	BoCCI	Annex I	No. of Records		Sites Recorded
			Winter 2023-24	Winter 2024-25	
Mute Swan	Amber	No	11	3	Kilcolman Bog SPA Ballyroe Quarry Pond Glanmore Flats Lisballyhea Castle Lake Jordanstown Eagle Lough Glanmore Flats Buttevant Bridge
Pintail	Amber	No	0	3	Kilcolman Bog SPA
Shoveler	Red	No	10	9	Eagle Lough Annagh Bogs Jordanstown Kilcolman Bog SPA
Snipe	Red	No	2	0	Caherconnor Castle Lake
Teal	Amber	No	17	19	Kilcolman Bog SPA Lisballyhea Castle Lake Ballyhea Quarry Eagle Lough Buttevant Bridge Annagh Bogs Jordanstown Ballyroe Quarry Pond
Tufted Duck	Amber	No	3	2	Kilcolman Bog SPA
Wigeon	Amber	No	13	15	Kilcolman Bog SPA Lisballyhea Ballyhea Quarry Eagle Lough Kilcolman Fields Annagh Bogs Jordanstown



4. DISCUSSION

4.1 Whooper Swan Distribution and Activity

The distribution and activity patterns of wintering whooper swan in the Annagh/Ballyroe locality detected by current surveys align with the findings outlined in the DAU submission for Ballyroe solar farm; however, the assessment of these patterns with regard to potential for cumulative effects to arise from construction and operation of Annagh wind farm in conjunction with Ballyroe solar farm cited as reasons for refusal of Annagh wind farm is rebutted on the basis that:

- 1) the established whooper swan activity and distribution patterns were not assessed in sufficient spatial detail to assess overlap or lack thereof between the proposed wind farm and established whooper swan activity, and
- 2) overestimation of the potential importance of habitats at the proposed wind farm site for whooper swan.

4.1.1 Distribution and Activity Patterns of Local Wintering Whooper Swans

While the current surveys detected a peak herd size of >97 which is less than the peak herd detected during NPWS surveys (177), the same distribution patterns were recorded, with swan herds and flight activity clustered around Ballyroe, Caherconnor, Annagh Fields East and Annagh Bogs (see attached ornithology report Figure 3-1). The surveys confirmed that the main grazing area in the locality inhabited by wintering whooper swans is centred on the fields at Annagh Fields East located along the Oakfront River south of the bridge and local road (0.73 km south-east of wind farm site) (covered by Annagh Fields East VP), and confirmed the area of Ballyroe Quarry Pond (1.75 km east of wind farm site) as the primary night roost in the locality. Occasional use of a flooded field at Annagh Bogs encompassing both roosting and feeding, located 0.8 km south-west of the closet proposed turbine (T04) (0.62 km west of wind farm site) was also detected, in agreement with NPWS surveys. Other areas occasionally used for grazing included fields along the Awbeg, at Caherconnor and south of Ballyroe. While the habitual night roost and grazing areas are located respectively at Ballyroe and Annagh Fields East, swan herds occasionally roosted at Annagh Fields East and Annagh Bogs. The density of static records and flight lines around Annagh Fields East and Ballyroe, in contrast with lower occurrence of activity in other areas provides a robust indication of the distribution of the local population and varying intensity of use of the areas they inhabit.

The flight patterns recorded trace the routes used to move between the areas described above, which indicate direct flight between the two primary sites Ballyroe and Annagh Fields East (all flights between these sites fully avoid the area in which the proposed wind farm is located), movements between Annagh Fields East and Annagh Bogs, and movements from Annagh Fields East towards the Awbeg. The habitual flight route between Annagh Fields East and Annagh Bogs is assessed based on observed flight activity as moving north/north-west, before veering south-west and then north-west again to arrive at Annagh Bogs and vice versa for the return journey. While they traverse lands to the south of the proposed wind farm site, none of these routes traverse the proposed wind farm site. Over the two full winters of surveys, there was one flight on 29/10/2024 at 07:20 am from Annagh Bogs (ID 33, detailed in attached ornithology report Appendices 2 and 3) where eight swans proceeded north-west towards the proposed wind farm before moving out of sight behind a treeline. This is assessed as either an outlier with a small group of swans moving north-east away from established/habitual territories, or swans straying too far north-west when moving back to the main grazing area at Annagh Fields East.

The flight corridors identified by current surveys align with previous NPWS survey findings.



There were no records of whooper swans traversing, grazing or roosting within or near the proposed wind farm site during visual surveys. Across all VP surveys, 94% of whooper swan flight activity was within the 0-25m height band (below lowest turbine blade tip height), while 6% occurred across height bands between 25m - 100m. It is noted that guidance identifies a 99.5% avoidance rate for whooper swan (SNH, 2018).

4.1.2 Habitat Preferences

Whooper swans are known to favour more intensively managed agricultural land for grazing, encompassing both pasture and tillage. Areas where these habitats occur in conjunction with flooding provides ideal habitat for this species, as demonstrated by the distribution patterns observed during current surveys.

Field observations and recent orthophotography confirm these conditions are present at Ballyroe, Annagh Fields East and Annagh Bogs, in addition to being common within the wider Awbeg catchment extending into the region south and south-east of the proposed Annagh wind farm. Plate 4-1 to Plate 4-3 below show the winter condition of the areas used by the local wintering whooper swan population.

In contrast, the rough agricultural fields in and adjacent to the southern area of the proposed wind farm, while wet and prone to winter flooding, do not provide favourable foraging opportunities for whooper swan due to low-intensity management and dominance of semi-natural vegetation with lower calorific value than the vegetation characteristics of more intensively managed agricultural habitats which are abundant in the region.



Plate 4-1: Flooded fields in primary grazing area at Annagh Fields East Swan VP



Plate 4-2: Ballyroe Quarry Pond (top right) and wet fields to south-west



Plate 4-3: Annagh Bogs - the partially dark field covered by text above is the area used by whooper swans. It has been reseeded and drained, but remains prone to flooding, providing ideal whooper swan habitat.



As such, the rough and wet grassland habitats at and near the proposed wind farm site provide sub-optimal habitat for wintering whooper swan, and would at best provide potential roosting habitat (no roosting was observed at the proposed wind farm during surveys). Considering the abundance of more intensively managed agricultural land prone to flooding in the locality and wider Awbeg catchment, the habitats at the proposed Annagh wind farm site are of minor importance for whooper swan when considering the overall habitat resource in the locality and wider region.

In the event of displacement from Ballyroe, more suitable roosting habitats are present at Annagh Fields East and Annagh Bogs, as evidenced by detailed observation of the local wintering whooper swan population.

In terms of potential for construction stage-displacement to result in cumulative effects, the habitats at the proposed Annagh wind farm are again assessed to be of minor importance in terms of its contribution to the habitat resource for whooper swans in the locality; higher quality roosting/grazing habitat is present at Annagh Bogs, Annagh Fields East, and also within c. 3 km along the Awbeg at Caherconnor East, Awbeg Bridge and Lisballyhea. The use of flooded fields at Lisballyhea by whooper swans has been demonstrated during hinterland surveys (see Section 3.1.3).

While there is a high degree of certainty that Ballyroe Quarry pond and surrounding lands will be required to be retained for whooper swans due to planning conditions imposed on Ballyroe solar farm by Cork County Council, even in a worst-case scenario where whooper swans were displaced, either temporarily or permanently from Ballyroe Solar Farm, there is ample alternative habitat in the Awbeg catchment suitable for use by roosting and grazing whooper swans, as evidenced by observations of whooper swans at Caherconnor East (6 swans observed on 27/01/2025), Awbeg Bridge (7 swans observed on 26/02/2024) and Lisballyhea (groups ranging from 6 to 49 swans observed across 7 dates between 29/10/2023 and 27/01/2025). Furthermore, the potential contribution to this whooper swan habitat resource made by the habitats at and adjacent to the proposed Annagh wind farm site is negligible in comparison to higher quality habitats which occur frequently in the flooded intensively managed pasture present in the Awbeg floodplain. As such, there is no potential for a cumulative effect in conjunction with Ballyroe solar farm in terms of potential whooper swan displacement.

Considering the above, it is concluded that the findings of the NIS remain unaltered.



4.1.3 Whooper Swan Migration Windows

It is noted that one of the reasons given for refusal was the use of untested technology for mitigation to avoid effects on migrating whooper swan. This is rebutted, considering that the proposed mitigation is clearly comprised of curtailment, the period of which was extended at the request of NPWS to cover the period from 15 September to 15 December for autumn/winter and 21 February to 15 April for spring migration.

The proposed mitigation from the outset is to implement curtailment between dusk and dawn during this period for the first year of operation, and to monitor migration patterns of whooper swan to determine if a narrower curtailment window can be applied while achieving the same level of mitigation. Any reduction in the curtailment window would only be implemented with the agreement of the planning authority and NPWS. Where there is no agreement by all parties the curtailment period shall remain the same.

The queries in relation to the reliance of future technologies misunderstand the spirit in which this consideration is included. The requested planning permission is for 10 years and it must be noted the proposed operational time of the wind farm is 35 years. Given this extended period of time, and the potential for future advances in technology and ecological mitigation measures over the coming decades, this statement merely acknowledges the potential for future advances in technology which may become standard ecological mitigation measures over the next 30 plus years. For a mitigation measure to become an industry standard accepted ecological mitigation measure the effectiveness of the technology must be beyond reasonable scientific doubt based on evidence from other sites in which it has been implemented. For clarity it must be emphasised that it is not proposed to trial or rely upon any new experimental technologies as a form of mitigation at the proposed Annagh Wind Farm. Regarding the use of technology to detect whooper swan movements and refine curtailment further, this is proposed only as an option for future consideration, and could not be implemented without agreement of the planning authority and NPWS on the basis of guaranteed effectiveness. Therefore, the developer alone cannot decide to adopt a new technology without this agreement.

As such, the proposed mitigation always was and remains curtailment from the outset, and it does not rely on any future technologies to further reduce/avoid effects. This is the basis upon which assessment is made.

The earliest and latest dates that whooper swan were recorded based on current surveys are detailed in Table 4-1. Based on observations across all survey types, the earliest autumn record of whooper swan was 02 October, while the latest autumn audio record was 28 November, indicating an autumn migration window range of 02 October to 28 November based on current surveys.

Applying the same principle in reverse to spring migration, observations across all surveys indicate a spring migration window range of 15 March to 30 March based on current surveys.

These migration windows identified by surveys are comfortably within the proposed curtailment mitigation windows, which are suitably conservative and extend from 15 September to 15 December for autumn/winter and 21 February to 15 April for spring migration, as proposed by the DAU.



Table 4-1: timing of records indicating whooper swan migration windows

Season	Autumn	
Year	2023	2024
Audio (first)	05/11/2023	13/10/2024
Wind farm VP (first)	02/11/2023	02/10/2024 ³
Swan VP (first)	01/11/2023	21/10/2024
Hinterland (first)	29/10/2023	21/10/2024
Audio (last)	23/11/2023	28/11/2024 ⁴
Season	Spring	
Year	2024	2025
Audio (first)	22/03/2024	15/03/2025 ⁵
Wind farm VP (last)	n/a	n/a
Swan VP (last)	29/03/2024	24/03/2025
Hinterland (last)	30/03/2024 ⁶	23/03/2025
Audio (last)	28/03/2024	19/03/2025

³ Earliest autumn record across all surveys

⁴ Latest autumn audio record

⁵ Earliest spring audio record

⁶ Latest spring record across all surveys



4.2 Other Species

Activity patterns remained similar for the species recorded during both current and pre-planning VP surveys.

No hen harrier roosting or behaviour indicative of roosting was observed; hen harrier activity was limited to wintering birds hunting or traversing the local area. As such, current observations indicate the baseline with regards to hen harrier site usage patterns remains unchanged.

The occurrence of teal at the proposed Annagh wind farm is noted due to this species being a conservation interest for Kilcolman Bog SPA. While this species was not previously recorded at the proposed wind farm site, it's occurrence during current VP surveys (2 observations) does not alter the findings of the NIS, for the following reasons:

Wintering teal are distributed widely across the landscape, having been recorded at a total of nine different hinterland sites during current surveys. As such, due to the presence of a dispersed wintering population in the locality, there is no defined link between teal wintering at Kilcolman Bog SPA and those observed at the proposed wind farm site. This species was observed to use the proposed wind farm site infrequently relative to other sites; there were only two observations of teal occurring at the proposed wind farm site, both in winter 2023-24, versus a total of 36 observations across nine hinterland sites over both surveyed winters.

The lack of potential for a link between Kilcolman Bog SPA and the proposed Annagh wind farm based on the foraging range of teal was identified in the NIS based on the following: the proposed wind farm site not within the core foraging range of Kilcolman Bog SPA for this species. Mean foraging distance for this species is identified as between 0.8 and 8.4 km (Johnson et al. 2014) (Kilcolman Bog SPA is located 9.1 km from the closest turbine).



5. CONCLUSION

Current surveys align with NPWS survey results in terms of wintering whooper swan distribution, activity and habitat use. The surveys have demonstrated that whooper swan are not using the proposed wind farm site or immediately adjacent areas for roosting or grazing, and that the flight corridors used by the local wintering population to move between roosting and grazing sites in the locality do not traverse the proposed wind farm site.

The habitats present at the proposed wind farm site are sub-optimal for whooper swan and of minor importance relative to the resource of suitable displacement habitat comprised of suitable roosting and grazing areas present in more intensively managed farmland in the Awbeg floodplain. In the event of displacement of wintering whooper swans from Ballyroe solar farm, these more intensively managed habitats would be favoured by whooper swan over those at the proposed Annagh wind farm site.

The autumn/winter and spring migration windows identified by current visual and audio surveys sit within and confirm the efficacy and conservativeness of the proposed curtailment periods.

The findings of the NIS remain unaltered by current surveys.



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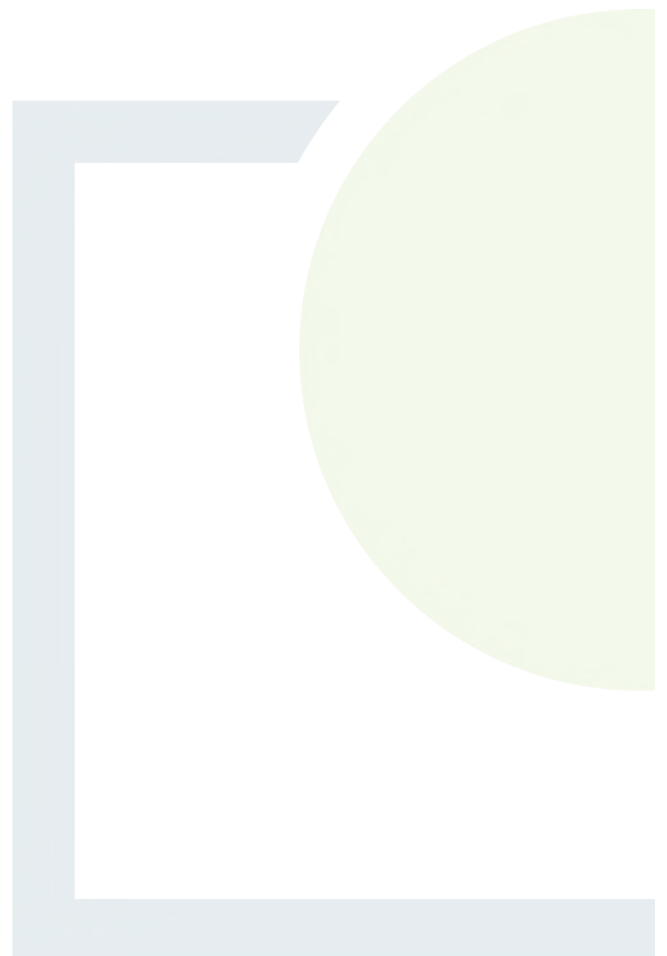
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DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 1

Wind farm VP survey schedule



Appendix 1 – Wind Farm VP Survey Schedule

VP	Surveyor	Date	Start	End	Cloud	Viewshed Fully Visible	Precipitation	Wind Speed (Beaufort)	Wind Direction
1	SR	09/10/2023	09:15	12:15	8	Yes	Dry	1	SE
1	SR	10/10/2023	07:49	10:49	7	Yes	Dry	2	S
1	SR	12/02/2024	09:30	12:30	3	Yes	Showers	3	SW
1	SR	10/11/2023	10:30	13:30	4	Yes	Dry	4	NW
2	SR	02/11/2023	07:45	10:45	4	Yes	Dry	1	W
2	SR	02/11/2023	11:15	19:15	4	Yes	Dry	1	W
2	SR	09/10/2023	12:45	15:45	4	Yes	Dry	1	SW
2	SR	10/10/2023	11:30	14:30	6	Yes	Dry	1	S
2	SR	14/02/2024	09:45	12:45	8	Yes	Drizzle	3	SW
2	SR	22/01/2024	09:20	12:20	8	Yes	Rain	4	W
1	SR	03/11/2024	08:00	11:00	1	Yes	Dry	2	NW
1	SR	16/01/2024	09:45	12:45	0	Yes	Dry	3	SW
1	SR	16/01/2024	13:15	16:15	0	Yes	Dry	1	SW
1	SR	11/03/2024	09:00	12:00	7	Yes	Dry	3	SW
1	SR	11/03/2024	12:30	15:30	7	Yes	Dry	3	SW
2	SR	27/02/2024	09:00	12:00	8	Yes	Light Rain	4	SW
2	SR	15/03/2024	09:00	12:00	7	Yes	Drizzle	3	NW
1	BOM	21/10/2024	12:20	18:20	7	Yes	Dry	3	SW
1	BOM	06/11/2024	07:00	10:15	8	Yes	Occ.Drizzle	2	S
1	BOM	06/11/2024	15:00	18:00	8	Yes	Occ.Drizzle	2	S
1	BOM	21/11/2024	11:00	14:00	8	Yes	Showers	2	NW
1	BOM	23/12/2024	07:55	14:00	8	Yes	Heavy showers	1	SW
1	BOM	25/01/2025	08:05	14:05	8	Yes	Showers	1	SE

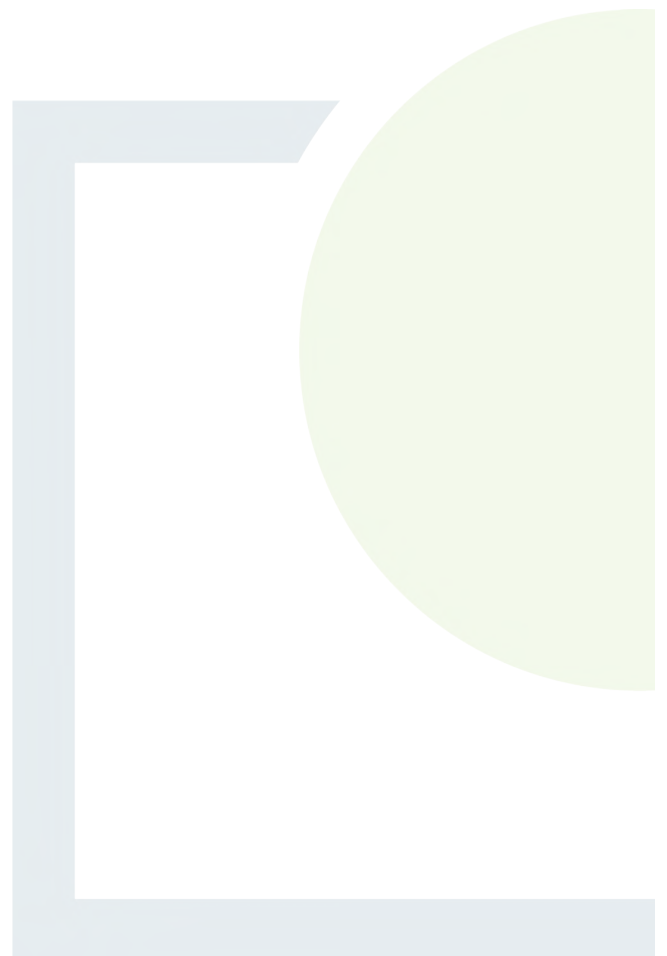
VP	Surveyor	Date	Start	End	Cloud	Viewshed Fully Visible	Precipitation	Wind Speed (Beaufort)	Wind Direction
1	BOM	24/03/2025	07:00	14:15	2	Yes	Dry	1	W
1	BOM	06/04/2025	08:45	15:00	6	Yes	Dry	2	
2	JG	24/10/2024	07:45	10:45	87.5	Yes	Drizzle	Moderate breeze	-
2	JG	05/11/2024	14:30	17:30	100	Yes	Dry	Light breeze	-
2	JG	19/11/2024	07:31	10:31	87.5	Yes	Dry	Gentle breeze	-
2	JG	20/12/2024	09:10	11:10	100	Yes	Light Rain	Gentle breeze	-
2	JG	20/12/2024	13:53	16:53	37.5	Yes	Dry	Gentle Breeze	-
2	JG	22/01/2025	14:35	17:35	50	Yes	Light Rain	Gentle breeze	-
2	JG	03/03/2025	15:48	18:48	37.5	Yes	Dry	Gentle breeze	-
2	JG	04/03/2025	07:15	10:15	62.5	Yes	Dry	Light breeze	-
2	JG	07/03/2025	15:55	18:55	37.5	Yes	Dry	Moderate breeze	-
2	JG	18/03/2025	06:30	09:30	87.5	Yes	Dry	Gentle breeze	-
2	JG	01/04/2025	17:38	20:40	50	Yes	Dry	Moderate breeze	-
2	JG	29/04/2025	06:30	09:30	25	Yes	Dry	Gentle breeze	-



DESIGNING AND DELIVERING
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APPENDIX 2

Wind farm VP survey results



Appendix 2 – Wind Farm VP Survey Results

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter23/24	1	09/10/2023	1	Snipe	3	09:27	35	35					Calling in flight
Winter23/24	1	09/10/2023	2	Snipe	2	09:58	10	10					Calling in flight
Winter23/24	1	09/10/2023	3	Snipe	2	10:07	65		65				Calling in flight
Winter23/24	1	09/10/2023	4	Snipe	2	10:11	20		20				Calling in flight
Winter23/24	1	09/10/2023	N/A	Grey Heron	1	10:43	2	2					Calling not seen
Winter23/24	1	09/10/2023	6	Snipe	2	11:06	2	5	5				Calling in flight
Winter23/24	1	09/10/2023	7	Snipe	1	11:12	30	30					Calling in flight
Winter23/24	1	09/10/2023	8	Snipe	1	11:44	5	5					Calling in flight
Winter23/24	1	10/10/2023	N/A	Grey Heron	1	08:47	3	3					Calling
Winter23/24	1	10/10/2023	10	Snipe	1	08:59	15	15					Calling in flight
Winter23/24	1	10/10/2023	11	Snipe	6	09:38	58			58			Calling in flight
Winter23/24	1	12/02/2024	12	Stock Dove	2	09:55	40		40				
Winter23/24	1	12/02/2024	13	Snipe	1	09:58	10	10					
Winter23/24	1	12/02/2024	14	Grey Heron	2	10:41	115	115					
Winter23/24	1	12/02/2024	15	Sparrowhawk	1	12:45	20	20					Female/ immature landed in tree briefly
Winter23/24	1	12/02/2024	16	Buzzard	3	12:45	480		50	120	300		Presumed pair soaring & Immature
Winter23/24	1	12/02/2024	17	Buzzard	1	14:13	195				195		Hovering/ hunting
Winter23/24	1	12/02/2024	18	Grey Heron	1	14:23	10	10					
Winter23/24	1	12/02/2024	19	Grey Heron	1	14:48	55	55					

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter23/24	1	12/02/2024	20	Mallard	2	15:07	140	10	10	20	100		
Winter23/24	1	12/02/2024	21	Teal	30	15:12	35	35					
Winter23/24	1	12/02/2024	22	Sparrowhawk	1	15:12	45	45					
Winter23/24	1	12/02/2024	N/A	Whooper Swan	1	09:49							Heard Only. Calling in flight E of VP1
Winter23/24	2	02/11/2023	N/A	Whooper Swan	5	07:50							Calling Unseen
Winter23/24	2	02/11/2023	24	Lesser Black-backed Gull	5	08:15	65				65		Commuting
Winter23/24	2	02/11/2023	25	Grey Heron	1	10:20	8	8					Landed in bog
Winter23/24	2	02/11/2023	26	Wigeon	16	10:34	55				55		Commuting
Winter23/24	2	02/11/2023	27	Lesser Black-backed Gull	1	10:35	35			35			Commuting
Winter23/24	2	02/11/2023	28	Buzzard	1	12:58	27	27					Mobbed by HC
Winter23/24	2	02/11/2023	29	Lesser Black-backed Gull	4	13:19	81			81			
Winter23/24	2	09/10/2023	30	Sparrowhawk	1	13:01	55	15	40				Female/immature mobbed by HC Landed in bog
Winter23/24	2	09/10/2023	31	Buzzard	2	13:20	260		260				Calling, soaring and following one another
Winter23/24	2	09/10/2023	N/A	Snipe	1	13:27	5	5					Heard calling in flight not seen
Winter23/24	2	09/10/2023	33	Lesser Black-backed Gull	1	13:55	65			65			Commuting
Winter23/24	2	09/10/2023	34	Grey Heron	2	14:06	2	2					calling in flight briefly

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter23/24	2	09/10/2023	35	Kestrel	1	14:26	60		60				Commuting + Calling
Winter23/24	2	09/10/2023	36	Sparrowhawk	1	14:41	25		25				Mobbed by Corvids
Winter23/24	2	09/10/2023	37	Kestrel	1	14:46	29	29					Commuting + Calling
Winter23/24	2	09/10/2023	38	Kestrel	1	15:31	45		45				Mobbed by corvids, alarm calling
Winter23/24	2	10/10/2023	39	Kestrel	1	11:30	5						Calling
Winter23/24	2	10/10/2023	40	Buzzard	1	11:58	25		25				Mobbed by HC
Winter23/24	2	10/10/2023	41	Snipe	1	12:01	30		30				Calling in flight
Winter23/24	2	10/10/2023	N/A	Grey Heron	1	12:03	1		1				Heard only, once
Winter23/24	2	10/10/2023	43	Buzzard	1	12:08	72				72		Calling in flight, mobbed by HC
Winter23/24	2	10/10/2023	N/A	Snipe	1	12:58	2	2					Heard Once
Winter23/24	2	10/10/2023	45	Kestrel	1	13:23	18	18					
Winter23/24	2	10/10/2023	N/A	Snipe	1	13:40	2	2					Heard Once
Winter23/24	2	10/10/2023	47	Stock Dove	1	13:53	55				55		
Winter23/24	2	10/10/2023	N/A	Grey Heron	1	14:26	1	1					Called once
Winter23/24	2	14/02/2024	49	Lesser Black-backed Gull	1	15:38	77				77		
Winter23/24	2	14/02/2024	N/A	Buzzard	2	13:41	51	51					Calling from cover
Winter23/24	2	14/02/2024	51	Mallard	2	14:07	6	6					
Winter23/24	2	14/02/2024	N/A	Buzzard	1	15:05	2	2					Calling from cover

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter23/24	2	22/01/2024	53	Grey Heron	1	11:55	5	5					Flight briefly then landed
Winter23/24	2	22/01/2024	54	Grey Heron	1	13:35	8	8					Flight briefly then landed
Winter23/24	2	22/01/2024	55	Lesser Black-backed Gull	250	13:41	245				245		Commuting
Winter23/24	2	22/01/2024	56	Black-headed Gull	100	13:41	245				245		Brief flight then landed
Winter23/24	2	22/01/2024	57	Grey Heron	1	14:05	5						Brief flight then landed
Winter23/24	2	22/01/2024	58	Snipe	2	14:22	55			55			
Winter23/24	1	03/11/2024	N/A	Grey Heron	1	10:24	2160	2160					Perched on fence post next to trees, feeding on ground soon after until end of survey
Winter23/24	1	16/01/2024	60	Buzzard	1	10:05	18	18					Landed in tree (unseen)
Winter23/24	1	16/01/2024	61	Snipe	1	10:13	35				35		
Winter23/24	1	16/01/2024	62	Little Egret	1	10:49	76	46	30				Landed in bog
Winter23/24	1	16/01/2024	63	Little Egret	1	11:27	2160	2160					Feeding on wet ground
Winter23/24	1	16/01/2024	64	Snipe	2	11:50	65	5	5	5	10	40	Landed in bog
Winter23/24	1	16/01/2024	65	Little Egret	1	12:04	25	25					Landed in bog
Winter23/24	1	16/01/2024	66	Grey Heron	1	12:16	300	300					Feeding on wet ground

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter23/24	1	16/01/2024	67	Teal	35	12:23	47	47					alighted and sank back into channel
Winter23/24	1	16/01/2024	68	Little Egret	1	13:32	37	37					landed on wet ground until 14:08
Winter23/24	1	16/01/2024	66	Grey Heron	1	14:52	3960	3960					Feeding on wet ground
Winter23/24	1	16/01/2024	70	Little Egret	1	14:51	2100	2100					Feeding on wet ground
Winter23/24	1	16/01/2024	71	Snipe	1	15:36	20				20		
Winter23/24	1	16/01/2024	72	Kestrel	1	15:37	180						Perched in tall tree, flushed by HH
Winter23/24	1	16/01/2024	73	Hen Harrier	1	16:00	89	9	40	30	10		Female hunting
Winter23/24	1	16/01/2024	74	Snipe	3	16:00	10						Flushed by HH
Winter23/24	1	11/03/2024	75	Kestrel	1	11:29	35	35					calling unseen due to tall WL1
Winter23/24	1	11/03/2024	76	Kestrel	1	12:42	5	5					calling unseen due to tall WL1
Winter23/24	1	11/03/2024	77	Peregrine	1	13:04	136			136			Commuting
Winter23/24	2	27/02/2024	78	Grey Heron	1	09:10	31			32			
Winter23/24	2	27/02/2024	79	Snipe	1	08:40	10	5	5				Flushed from road on route to VP
Winter23/24	2	15/03/2024	80	Buzzard	6	10:41	260				20	240	Soaring, calling
Winter23/24	2	15/03/2024	81	Sparrowhawk	1	11:44	12		12				
Winter 24/25	1	21/10/2024	82	Buzzard	1	12:41	75		8	67			Soaring

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter 24/25	1	21/10/2024	83	Buzzard	1	12:41	300		5	295			Soaring
Winter 24/25	1	21/10/2024	84	Buzzard	1	16:52	11		11				
Winter 24/25	1	21/11/2024	85	Buzzard	1	13:42	33	33					Perched then flight
Winter 24/25	1	23/12/2024	86	Hen Harrier	1	12:26	3	3					Brief view
Winter 24/25	1	25/01/2025	87	Buzzard	1	11:32	>480	>480					Flight to perch
Winter 24/25	1	25/01/2025	88	Hen Harrier	1	13:18	>240	>240					Imm male hunting and perched
Winter 24/25	1	25/01/2025	89	Hen Harrier	1	13:30	>300	>300					same bird as Flight line ID88
Winter 24/25	1	24/03/2025	90	Kestrel	1	14:20	58		58				Hunting
Winter 24/25	1	06/04/2025	91	Buzzard	1	11:58	180		180				Flying
Winter 24/25	1	06/04/2025	92	Kestrel	1	14:02	96	10	86				Hunting
Winter 24/25	2	24/10/2024	93	Sparrowhawk	1	09:23	20						Heard calling in field adjacent to VP for approximately 20 seconds. No visual
Winter 24/25	2	05/11/2024	94	Buzzard	1	15:18	50		50				Flew over barn, circled twice before descending and flying passed the hedgerow out of view, Commuting

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
Winter 24/25	2	05/11/2024	95	Kestrel	1	15:29	20	20					Male flying low over grassland, commuting
Winter 24/25	2	19/11/2024	96	Whooper Swan	3	08:27	20		20				Flying west over VP
Winter 24/25	2	19/11/2024	97	Whooper Swan	6	09:18	15	15					6 WS commuting
Winter 24/25	2	20/12/2024	98	Grey Heron	1	09:35	30	30					Flying low behind farmyard before appearing to land
Winter 24/25	2	20/12/2024	99	Little Egret	1	10:13	50		50				Flying across site then turned north out of view
Winter 24/25	2	20/12/2024	100	Buzzard	1	15:14	25	20					Flew mostly along hedgerow, landed in far hedgerow. Not seen leaving as surveyor was recording heron flight
Winter 24/25	2	20/12/2024	101	Grey Heron	1	15:15	20	20					Left perch on old barn, flew low westward out of view

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
													behind hedgerow
Winter 24/25	2	20/12/2024	102	Buzzard	1	15:27	30			30			Individual soaring, being mobbed by a HC, flew south out of view.
Winter 24/25	2	20/12/2024	103	Hen Harrier	1	15:48	15	15					Flew low over field, possibly landed behind hedgerow.
Winter 24/25	2	03/03/2025	104	Kestrel	1	17:08	25	25					Annagh VP2 - Male kestrel flew east, landed momentarily on barn and continued flying low
Winter 24/25	2	03/03/2025	105	Kestrel	1	17:48	10	10					Annagh VP2 - male perched on tree, dropped out of view to east. Different individual than earlier
Winter 24/25	2	03/03/2025	114	Buzzard	1	16:41	60						Heard calling behind VP lasted

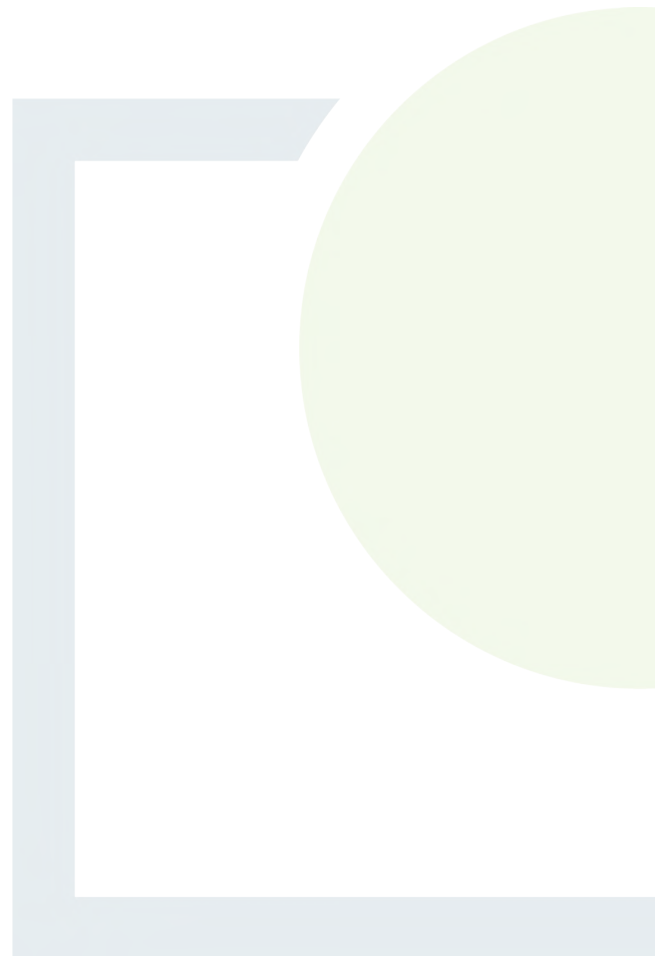
Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	>175m	Notes
													approximately 60seconds, not in view
Winter 24/25	2	03/03/2025	115	Buzzard	1	09:34							Calling behind VP
Winter 23/24	1	10/11/2023	108	Sparrowhawk	1	11:02	18	18					Male
Winter 23/24	1	10/11/2023	109	Buzzard	1	11:32	90	90					Heard Only
Winter 23/24	1	10/11/2023	110	Kestrel	1	11:33	307		240	67			Hunting
Winter 23/24	1	10/11/2023	111	Grey Heron	1	12:20	40	40					
Winter 23/24	1	10/11/2023	112	Kestrel	1	Not Recorded	65		65				Mobbed by JD
Winter 24/25	2	02/10/2024	116	Whooper Swan	3	18:41	20	20					Flying SW

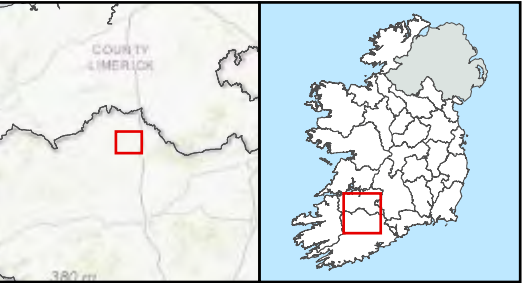
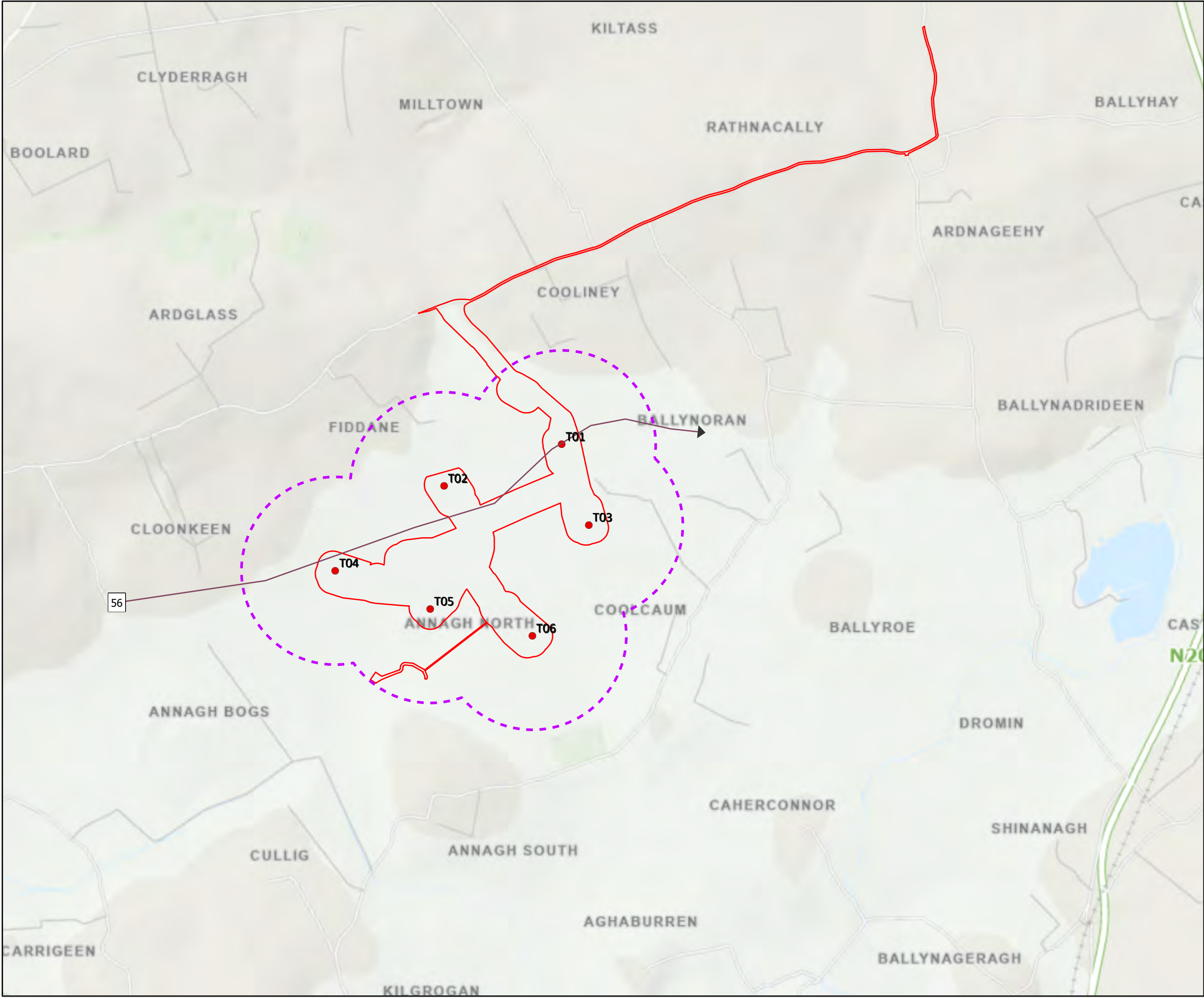


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APPENDIX 3

Wind farm VP avian activity
mapping





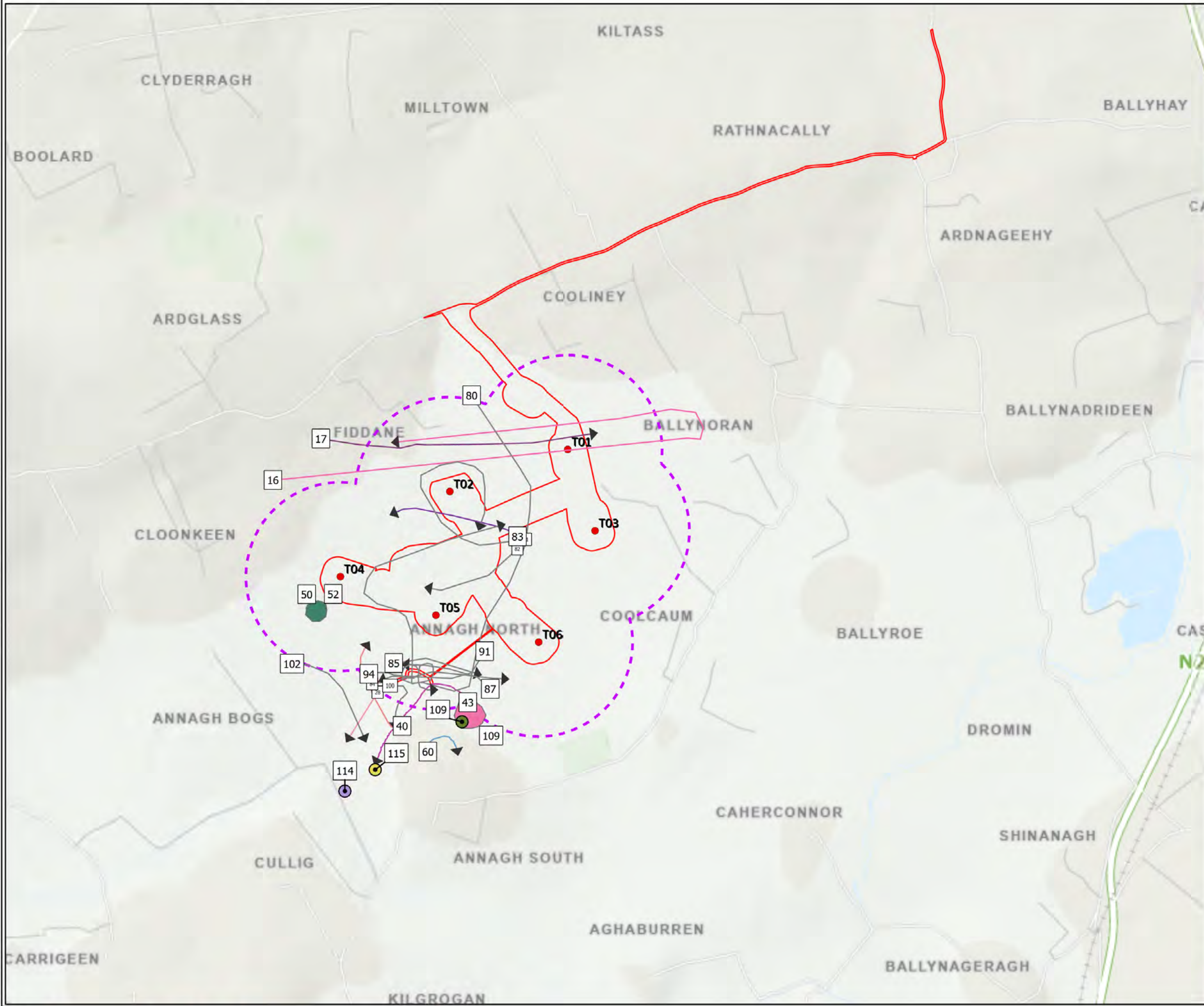
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- Site Boundary
- SNH Buffer
- Turbine Layout
- 56,22/01/2024,13:41

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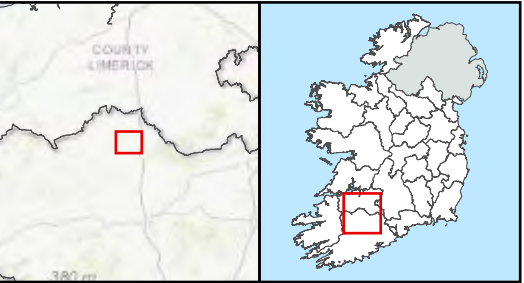
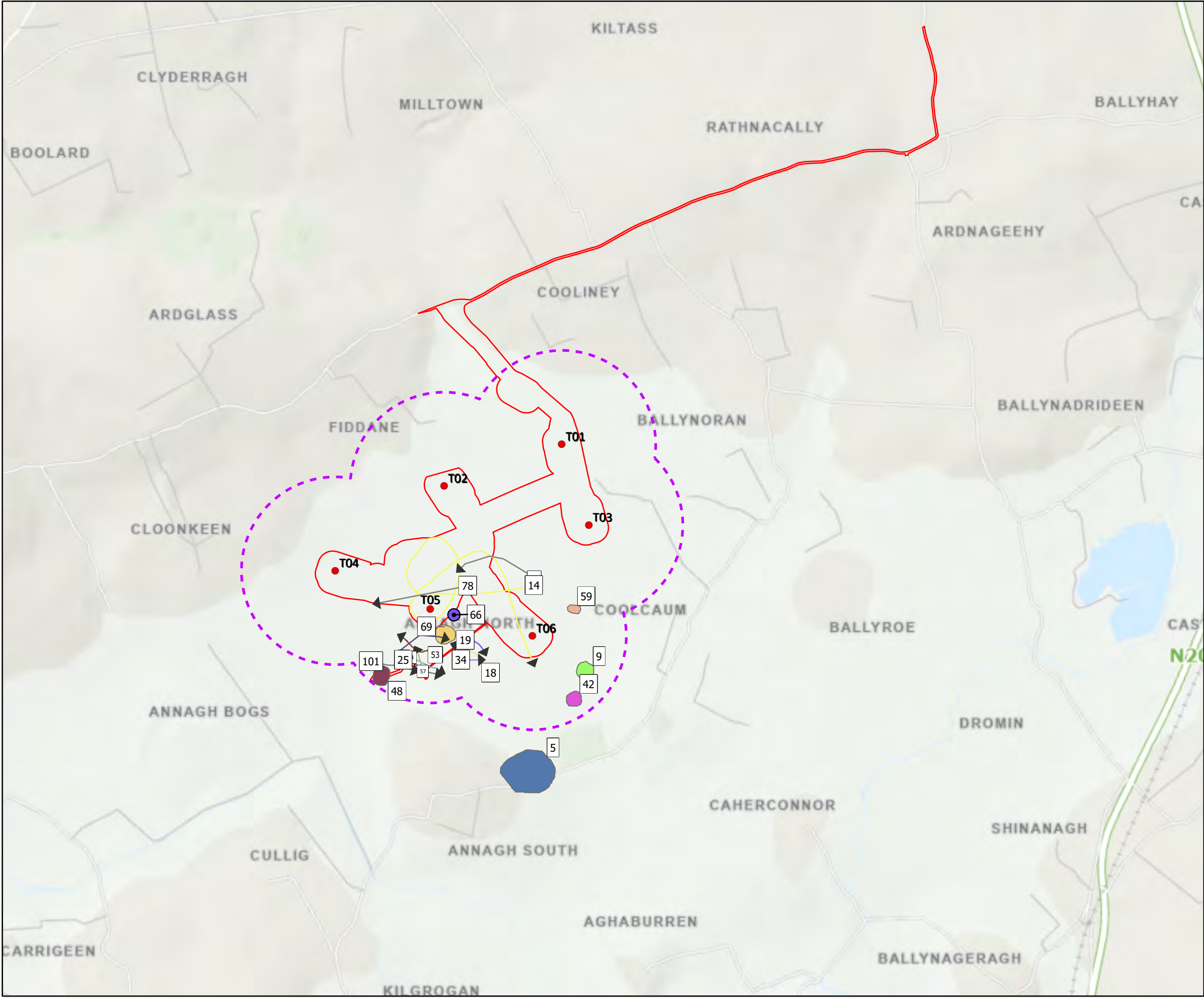
Cork | Dublin | Carlow
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Legend	
	Site Boundary
	SNH Buffer
●	Turbine Layout
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→	17,12/02/2024,14:13
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→	87,25/01/2025,11:32
→	91,06/04/2025,11:58
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→	100,20/12/2024,15:14
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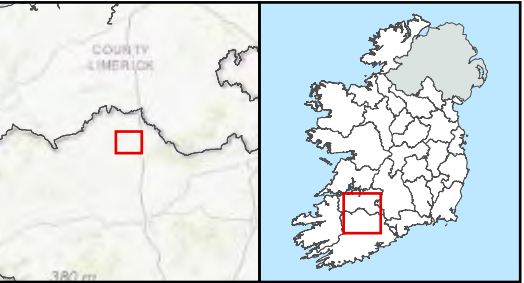
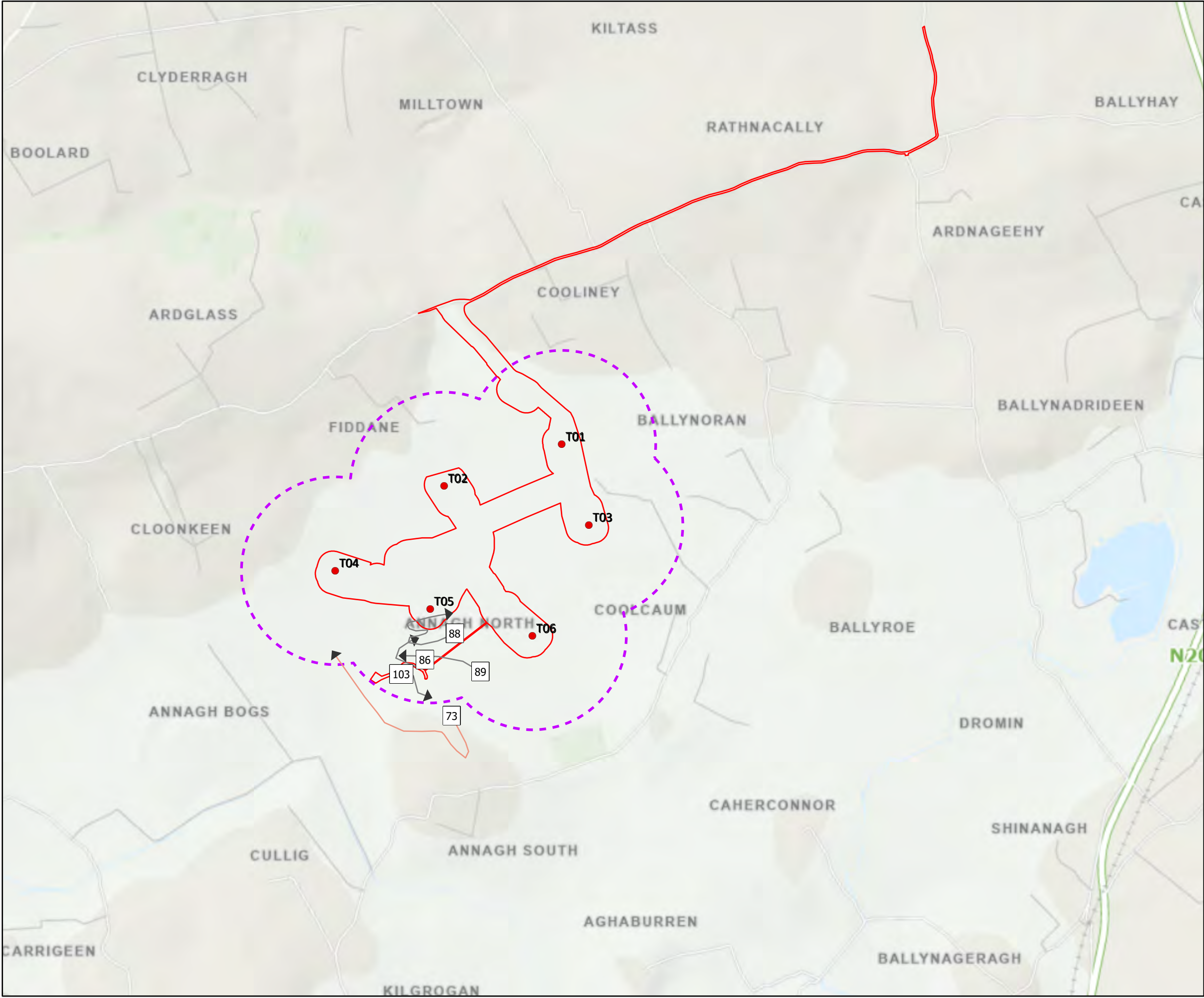


Legend
Site Boundary
SNH Buffer
Turbine Layout

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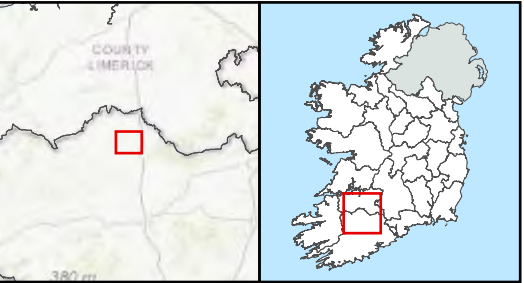
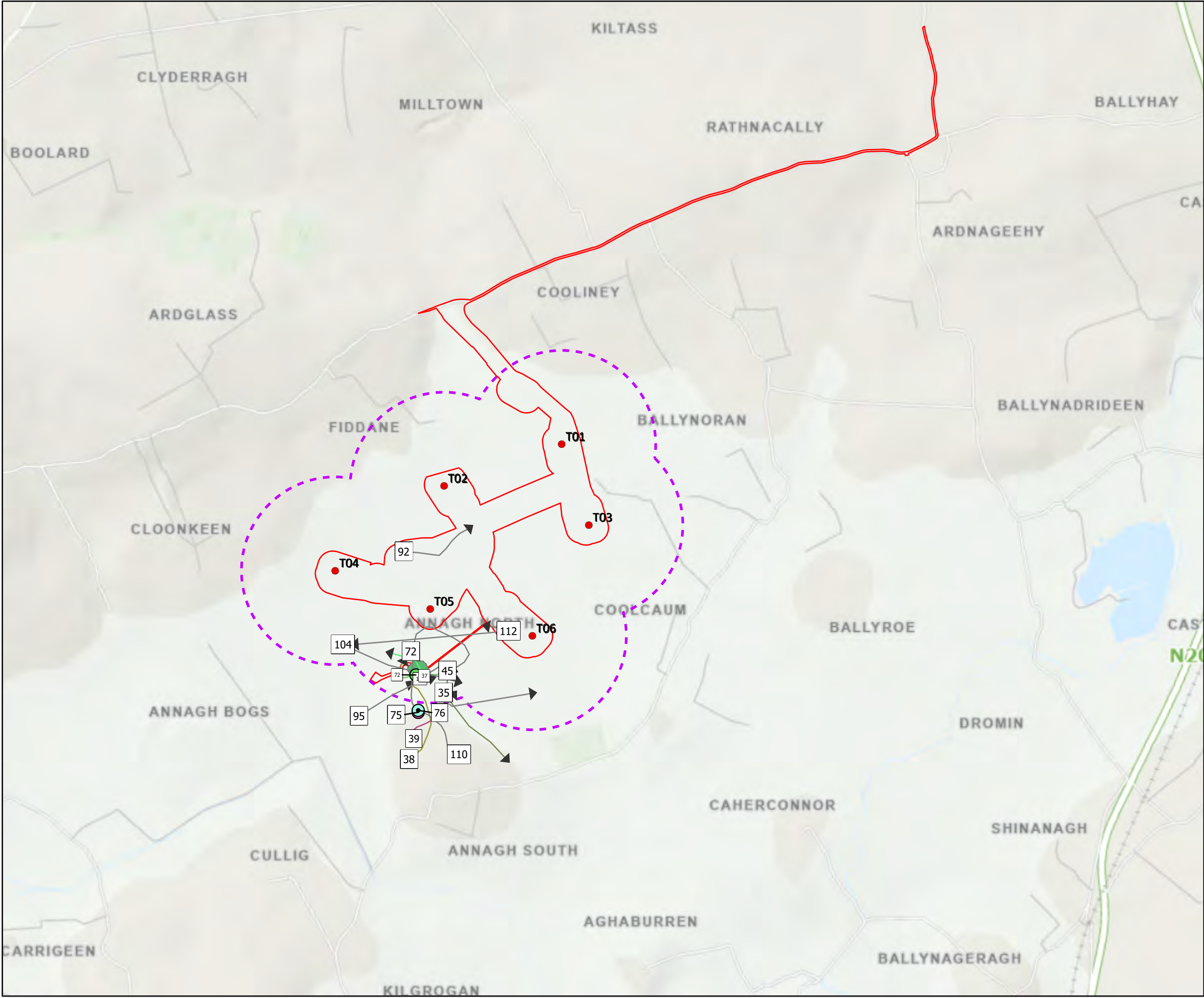




Legend

- Site Boundary
- SNH Buffer
- Turbine Layout
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- 88,25/01/2025,13:18
- 89,25/01/2025,13:30
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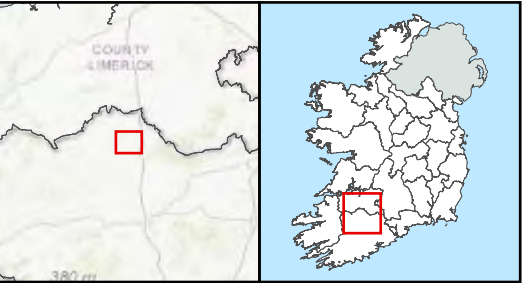
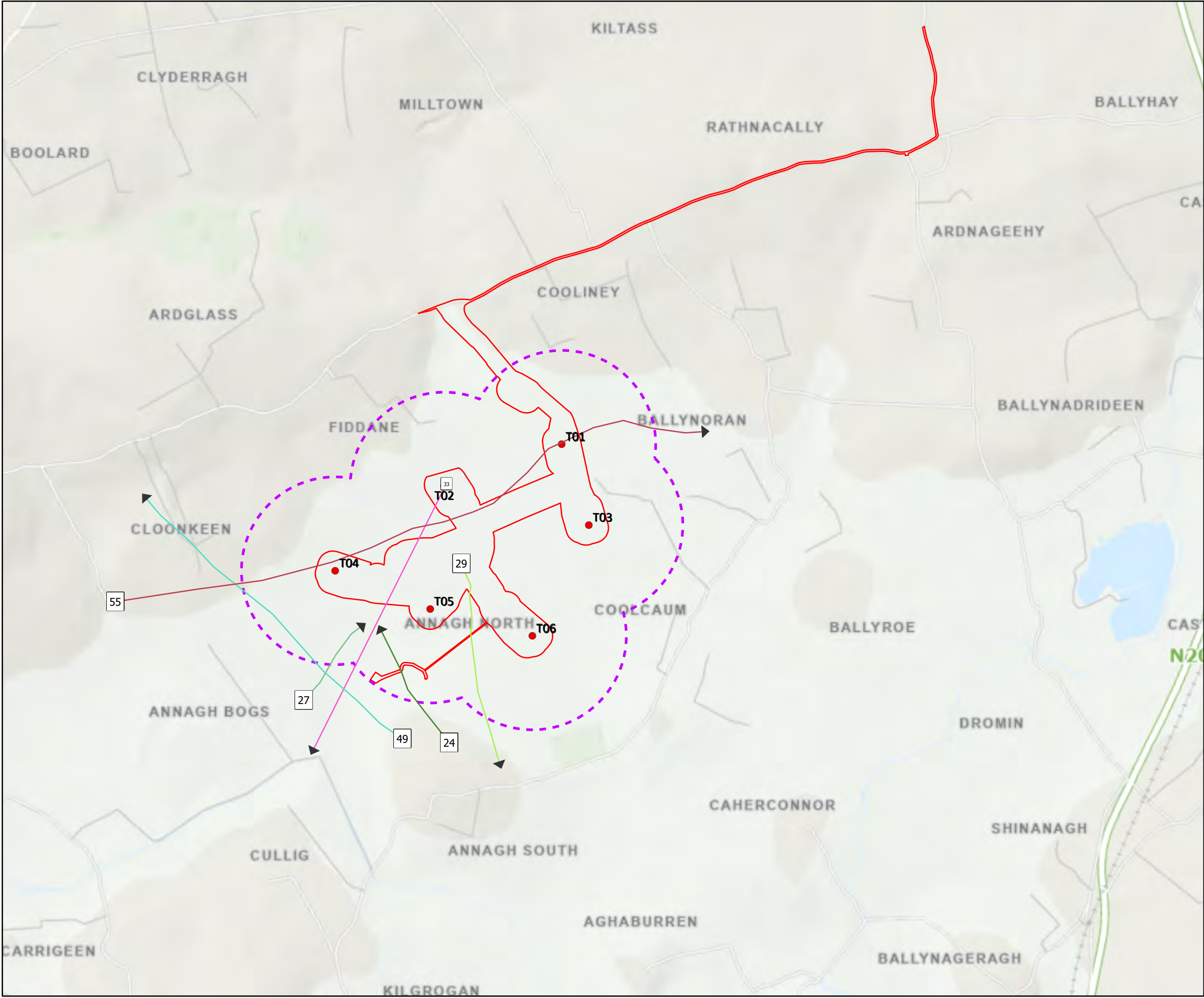
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Legend
Site Boundary
SNH Buffer
Turbine Layout

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39,10/10/2023,11:30
45,10/10/2023,13:23
90,24/03/2025,14:20
92,06/04/2025,14:02
95,05/11/2024,15:29
104,03/03/2025,17:08
105,03/03/2025,17:48
110,10/11/2023,11:33
112,10/11/2023,
72,16/01/2024,15:37
75,11/03/2024,11:29
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DATE:	02/07/2025	PAGE SIZE:	A3
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Legend

Site Boundary

SNH Buffer

Turbine Layout

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27/02/11/2023,10:35

29/02/11/2023,13:19

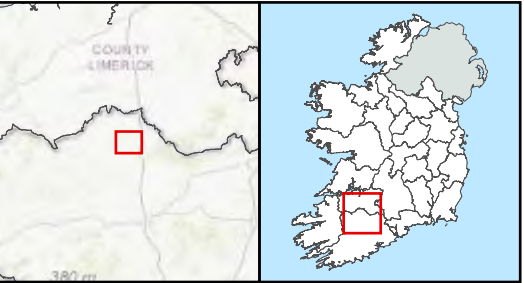
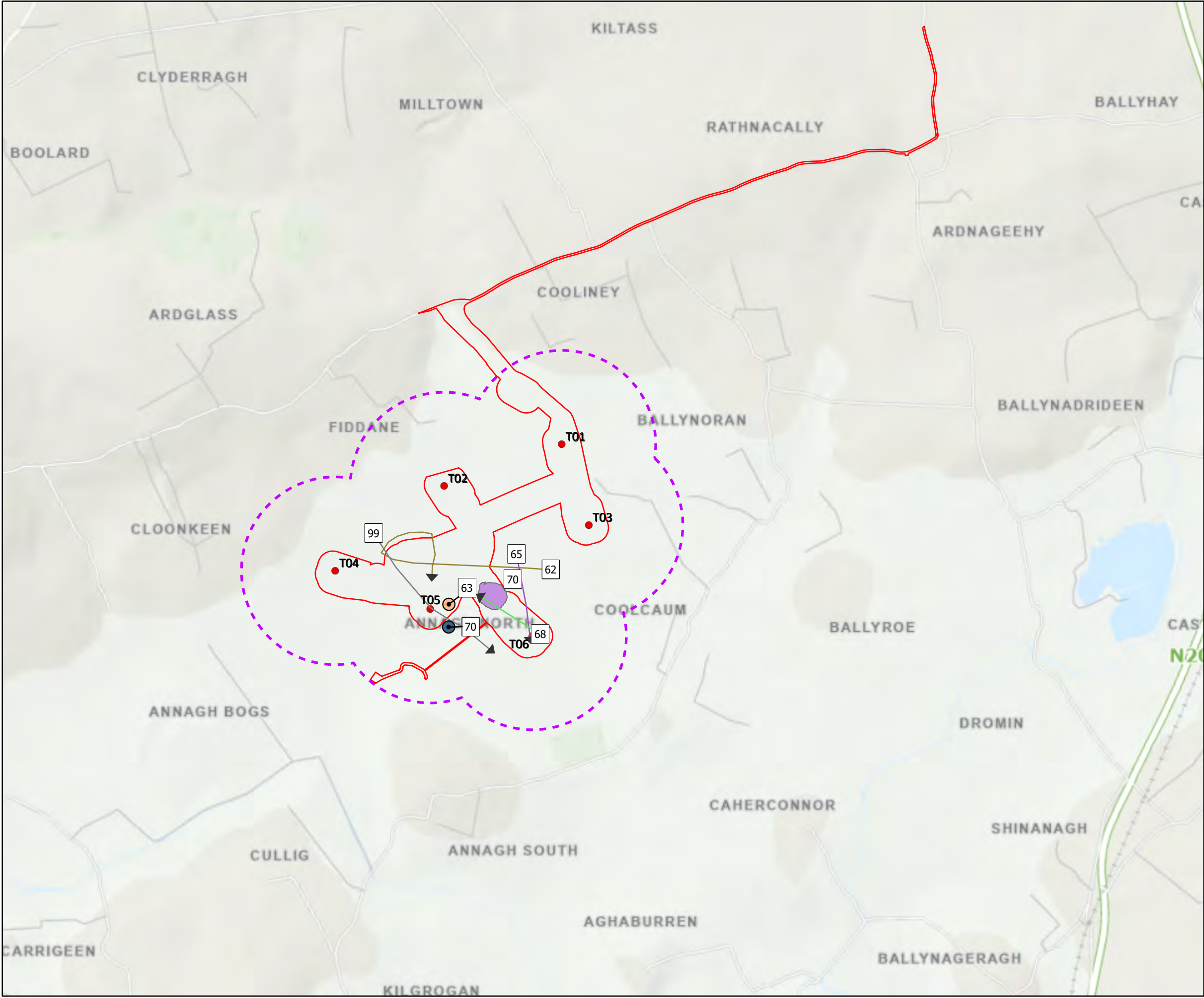
33/09/10/2023,13:55

49/14/02/2024,15:38

55/22/01/2024,13:41

TITLE:	Lesser Black-backed Gull		
PROJECT:	Annagh Wind Farm		
FIGURE NO:	--		
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Legend

Site Boundary

SNH Buffer

Turbine Layout

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62,16/01/2024,10:49

65,16/01/2024,12:04

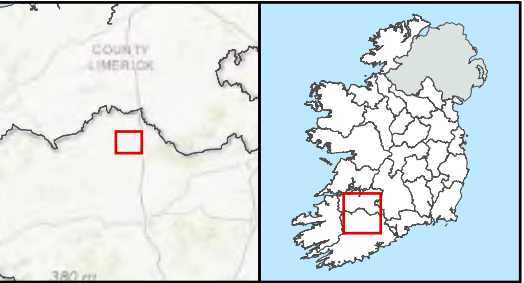
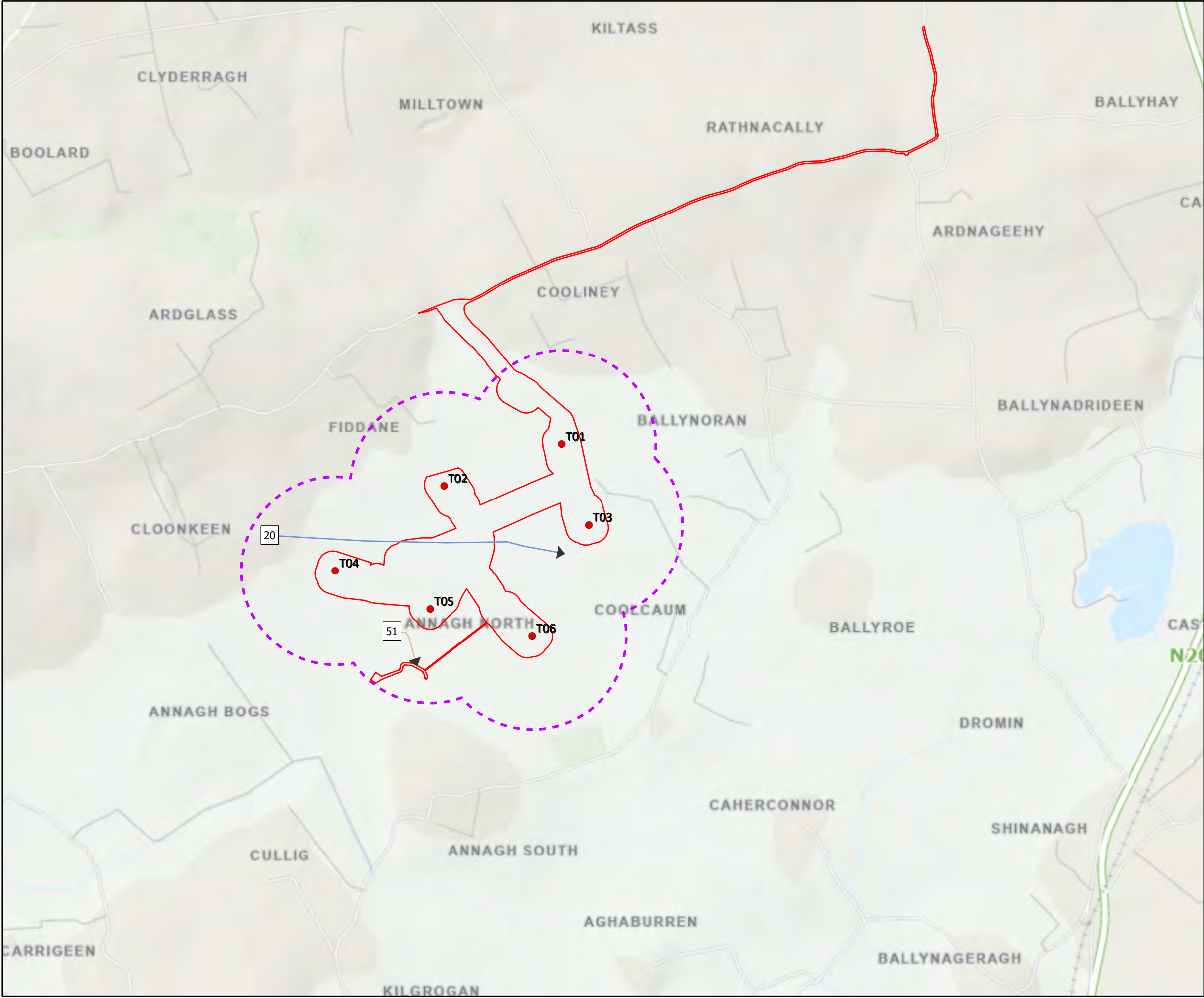
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99,20/12/2024,10:13

63,16/01/2024,11:27

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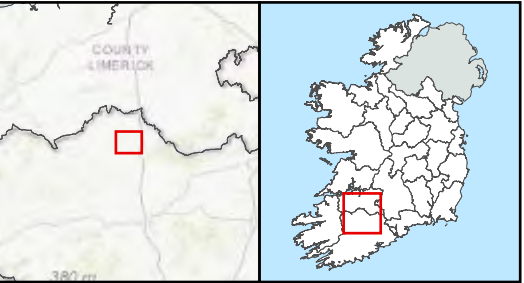
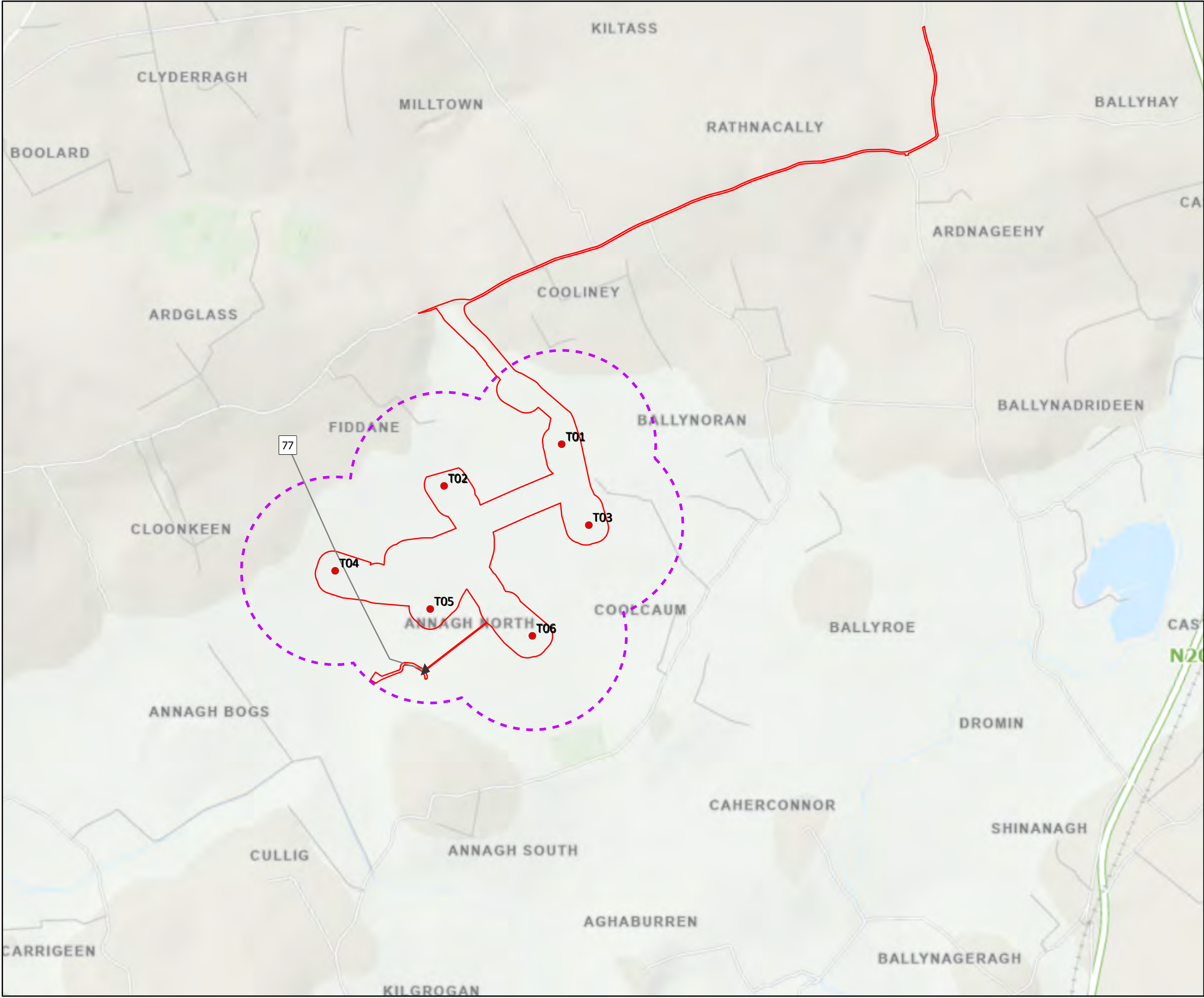
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- Legend**
- Site Boundary
 - SNH Buffer
 - Turbine Layout
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 - 51,14/02/2024,14:07

TITLE:		Mallard	
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DATE:	02/07/2025	PAGE SIZE:	A3



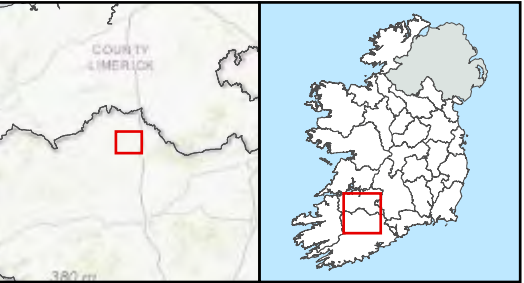
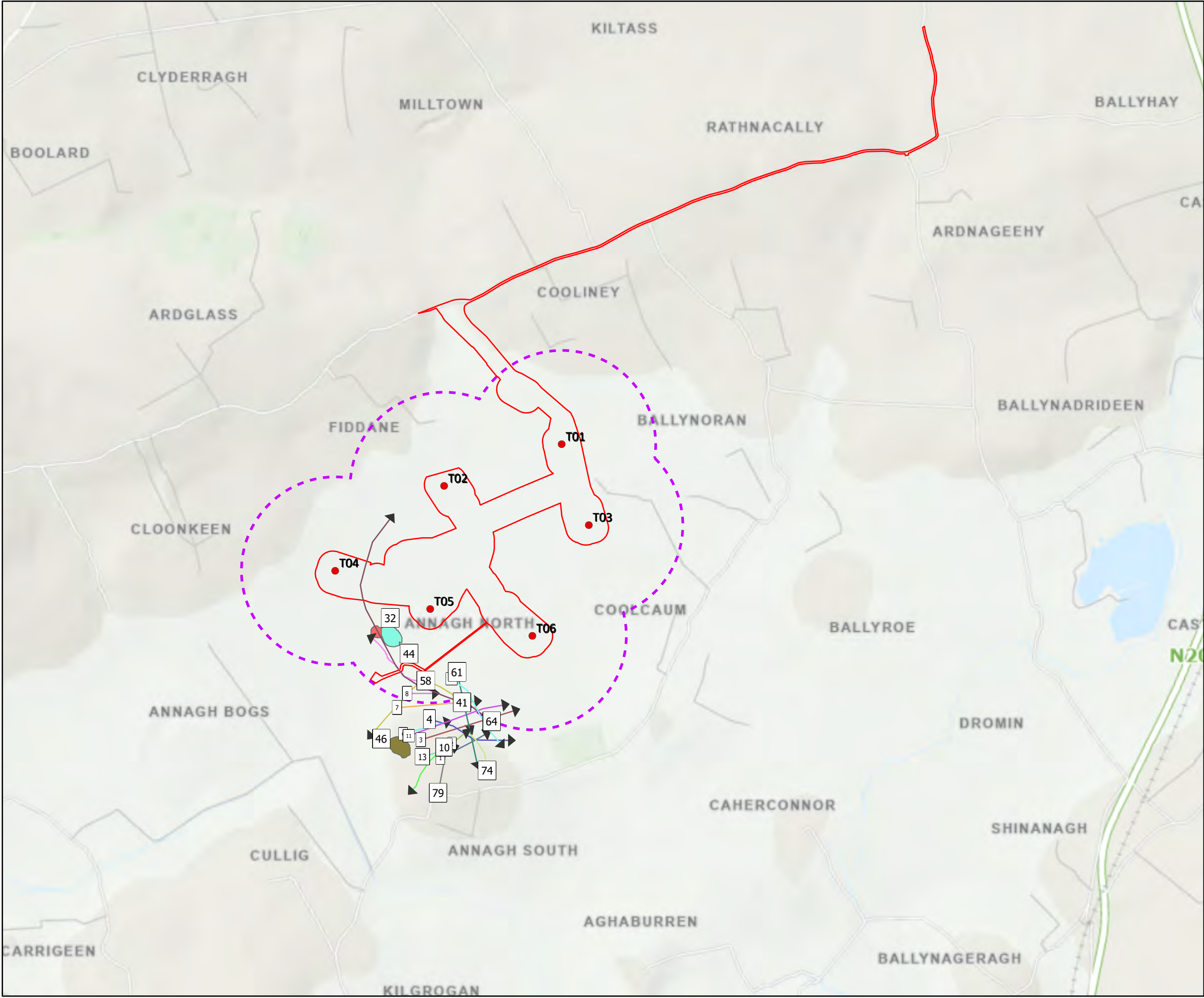


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- Site Boundary
- SNH Buffer
- Turbine Layout
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TITLE:		Peregrine	
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FIGURE NO:		--	
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DATE:	02/07/2025	PAGE SIZE:	A3

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Legend

Site Boundary

SNH Buffer

Turbine Layout

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46,10/10/2023,13:40

1,09/10/2023,09:27

2,09/10/2023,09:58

3,09/10/2023,10:07

4,09/10/2023,10:11

6,09/10/2023,11:06

7,09/10/2023,11:12

8,09/10/2023,11:44

10,10/10/2023,08:59

11,10/10/2023,09:38

13,12/02/2024,09:58

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58,22/01/2024,14:22

61,16/01/2024,10:13

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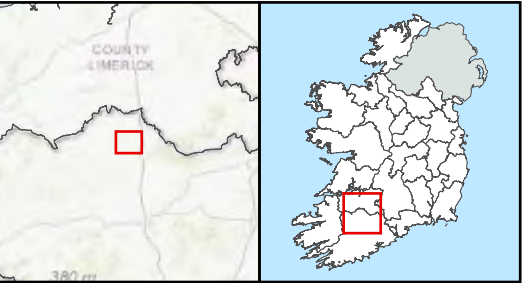
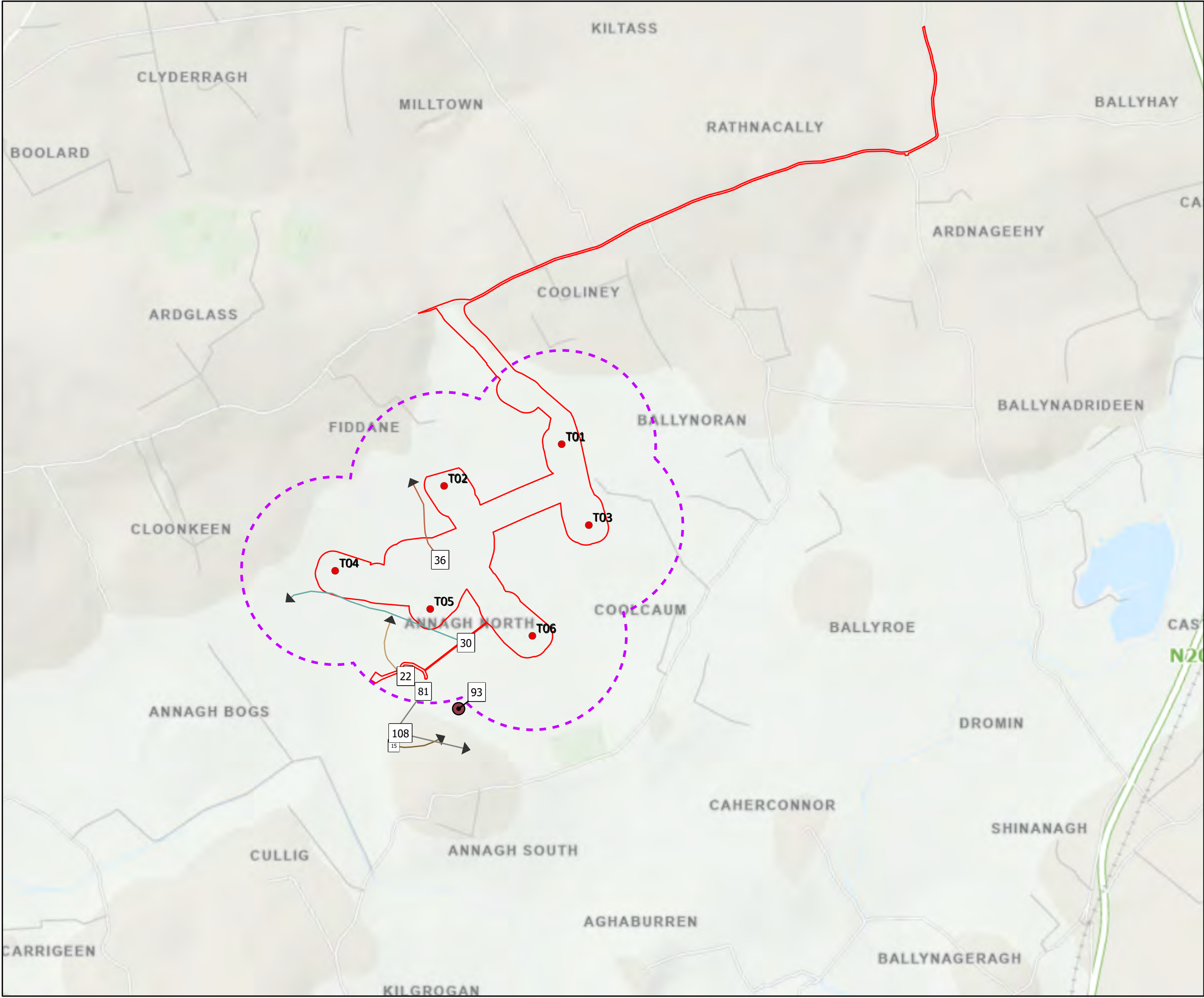
71,16/01/2024,15:36

74,16/01/2024,16:00

79,27/02/2024,08:40

TITLE:		Snipe	
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FIGURE NO:		--	
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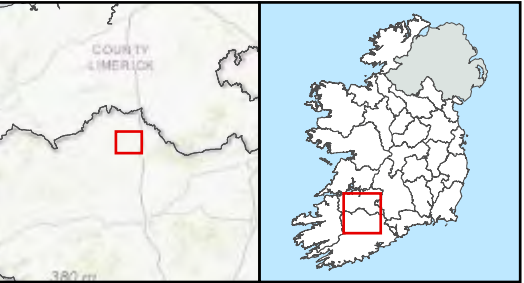
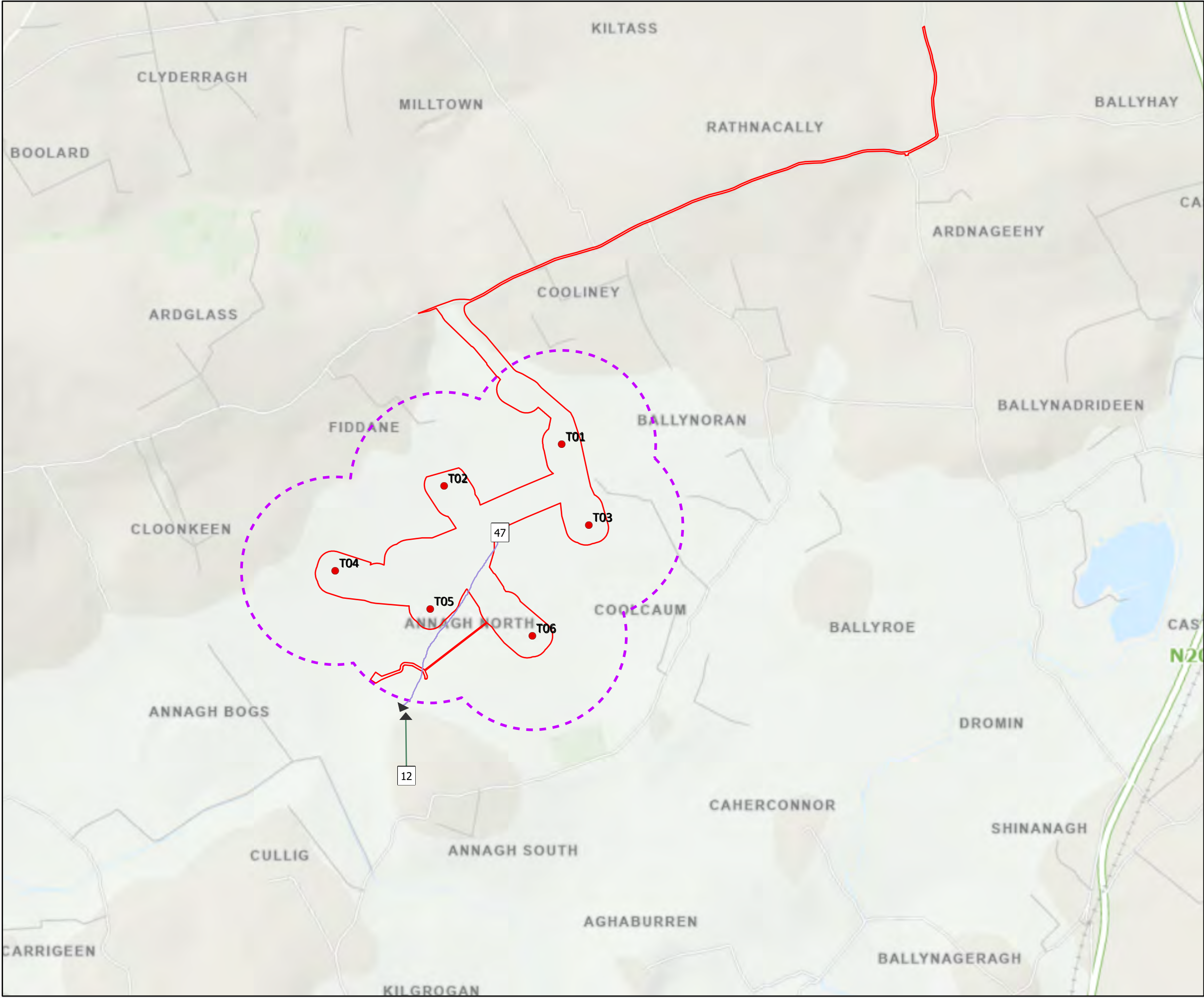




Legend

- Site Boundary
- SNH Buffer
- Turbine Layout
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- 22,12/02/2024,15:12
- 30,09/10/2023,13:01
- 36,09/10/2023,14:41
- 81,15/03/2024,11:44
- 108,10/11/2023,11:02
- 93,24/10/2024,09:23

TITLE:		Sparrowhawk	
PROJECT:		Annagh Wind Farm	
FIGURE NO:		--	
CLIENT:		Annagh Wind Farm Ltd.	
SCALE:	1:20,000	REVISION:	0
DATE:	02/07/2025	PAGE SIZE:	A3



Legend

Site Boundary

SNH Buffer

Turbine Layout

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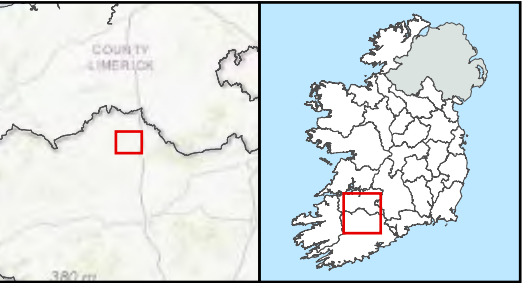
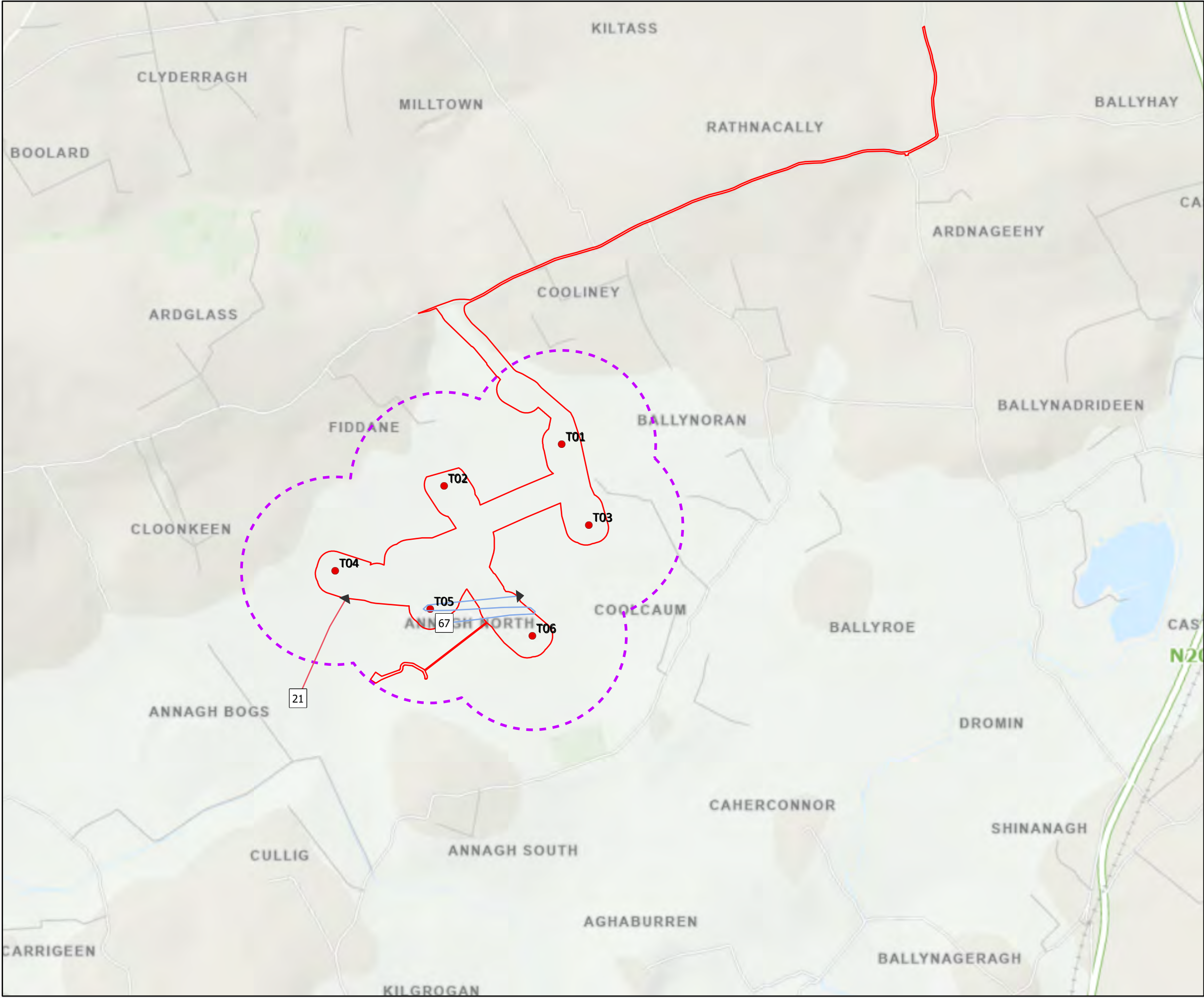
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FIGURE NO:		--	
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SCALE:	1:20,000	REVISION:	0
DATE:	02/07/2025	PAGE SIZE:	A3

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Legend

- Site Boundary
- SNH Buffer
- Turbine Layout
- 21,12/02/2024,15:12
- 67,16/01/2024,12:23

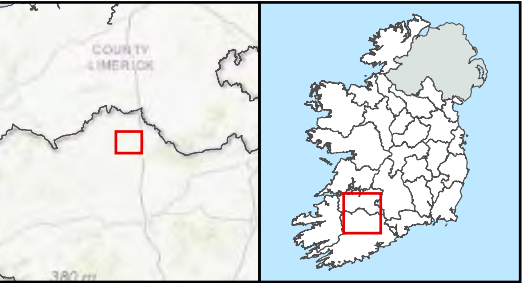
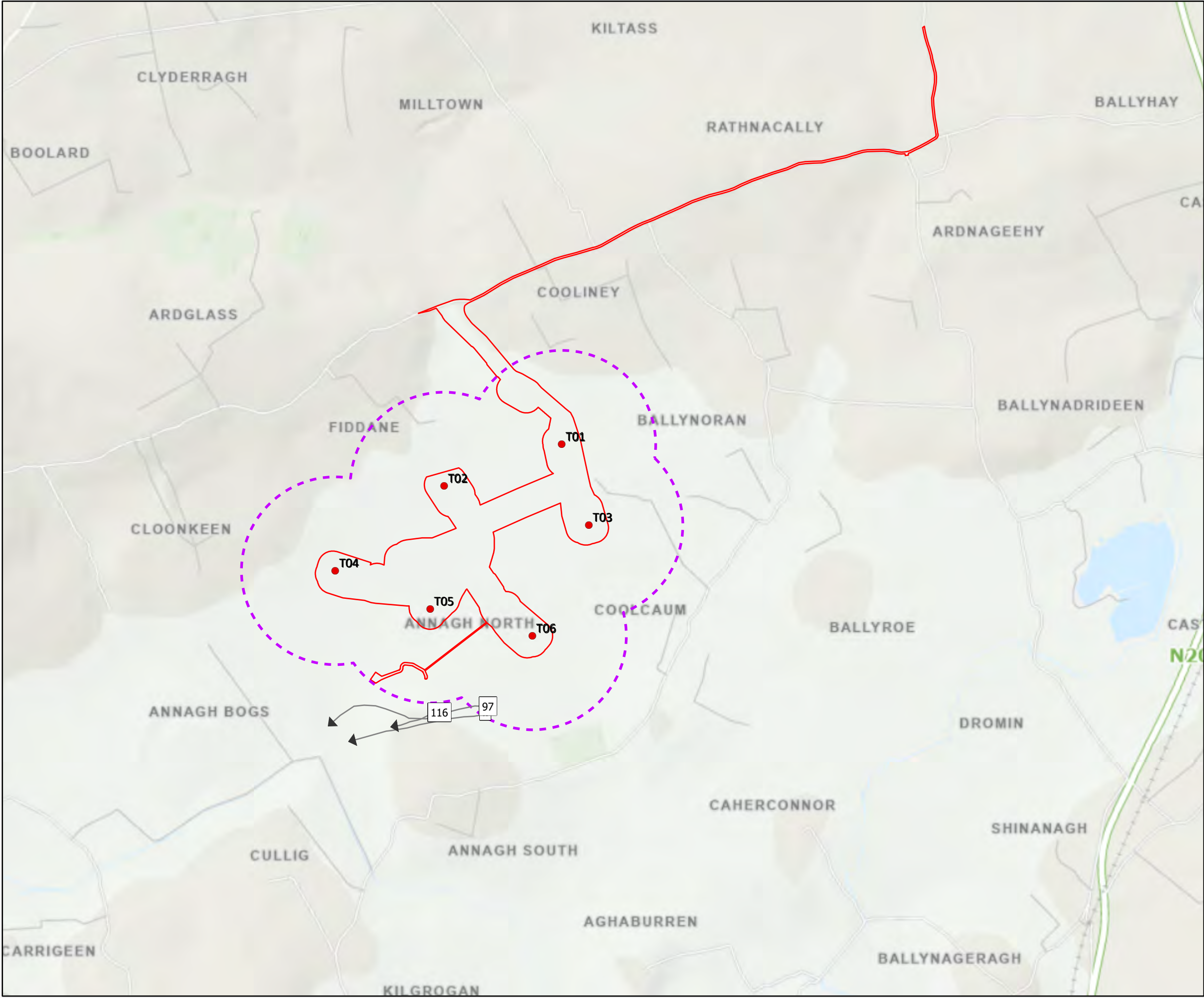
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FIGURE NO:		--	
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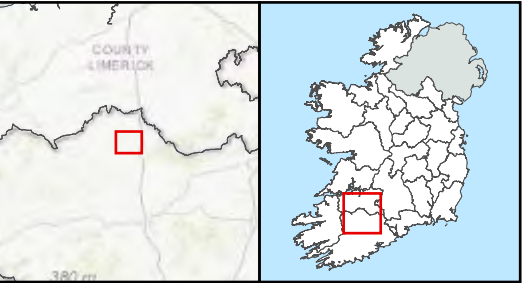
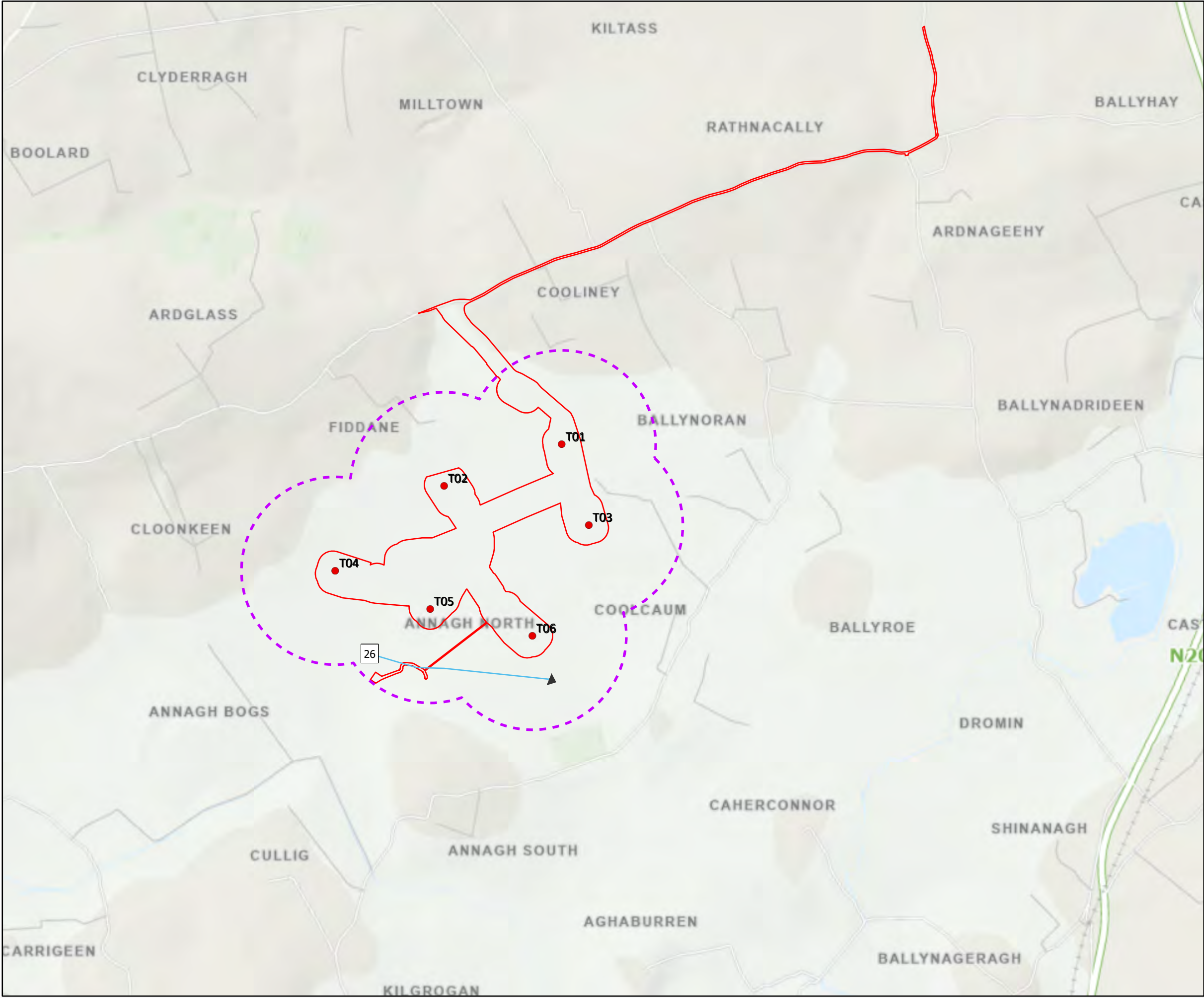




Legend

- Site Boundary
- SNH Buffer
- Turbine Layout
- 96,19/11/2024,08:27
- 97,19/11/2024,09:18
- 116,02/10/2024,18:41

TITLE:	Whooper Swan		
PROJECT:	Annagh Wind Farm		
FIGURE NO:	--		
CLIENT:	Annagh Wind Farm Ltd.		
SCALE:	1:20,000	REVISION:	0
DATE:	02/07/2025	PAGE SIZE:	A3



- Legend**
- Site Boundary
 - SNH Buffer
 - Turbine Layout
 - 26,02/11/2023,10:34

TITLE:		Wigeon	
PROJECT:		Annagh Wind Farm	
FIGURE NO:		--	
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SCALE:	1:20,000	REVISION:	0
DATE:	02/07/2025	PAGE SIZE:	A3



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APPENDIX 4

Swan VP survey schedule



Appendix 4 – Swan VP Survey Schedule

VP	Surveyor	Date	Start	End	Cloud	Viewshed Fully Visible	Precipitation	Wind Speed (Beaufort)	Wind Direction
Annagh Fields East	BOM	04/03/2024	14:20	19:30	6	Yes	Showers	4	W
Annagh Fields East	BOM	03/02/2024	07:20	13:40	8	Yes	Drizzle	1	SW
Annagh Fields East	BOM	29/03/2024	05:30	11:30	3	Yes	Showers	2	SW
Annagh Fields East	BOM	05/12/2023	06:45	13:00	6	Yes	Dry	0	W
Annagh Fields East	BOM	18/11/2023	12:00	18:30	8	Yes	Dry	2	SW
Annagh Fields East	BOM	01/11/2023	12:00	18:00	7	Yes	Dry	2	S
Annagh Fields East	BOM	21/10/224	16:00	19:00	3	Yes	Dry	2	S
Annagh Fields East + Kilcolman	BOM	21/10/2024	08:11	18:27	3	Yes	Dry	2	
Annagh Fields East + Kilcolman + Buttevant Bridge	BOM	29/10/2024	11:00	17:30	6	Yes	Heavy Showers	4	NE
Annagh Fields East	BOM	28/10/2024	16:00	19:00	8	Yes	Dry	3	NE
Annagh Bog	BOM	29/10/2024	06:50	09:00	8	Yes	Dry	2	
Annagh Fields East	BOM	29/10/2024	09:00	13:00	8	Yes	Dry	2	
Annagh Bog + Annagh Fields East	BOM	12/11/2024	07:10	10:00	4	Yes	Dry	2	SW
Ballyroe Quarry	BOM	12/11/2024	16:00	18:30	8	Yes	Dry	2	
Ballyroe Quarry	BOM	21/11/2024	16:30	18:20	1	Yes	Dry	2	NW
Annagh Fields East	BOM	27/11/2024	15:30	18:00	1	Yes	Dry	1	NE
Annagh Fields East	BOM	27/11/2024	07:10	09:00	2	Yes	Dry	1	
Annagh Fields East	BOM	21/12/2024	15:35	17:25	8	Yes	Dry	1	SW
Annagh Fields East	BOM	27/12/2024	16:00	18:40	8	Yes	Dry	2	SW
Annagh Bog	BOM	01/01/2025	07:30	11:00	5	Yes	Dry	2	SW

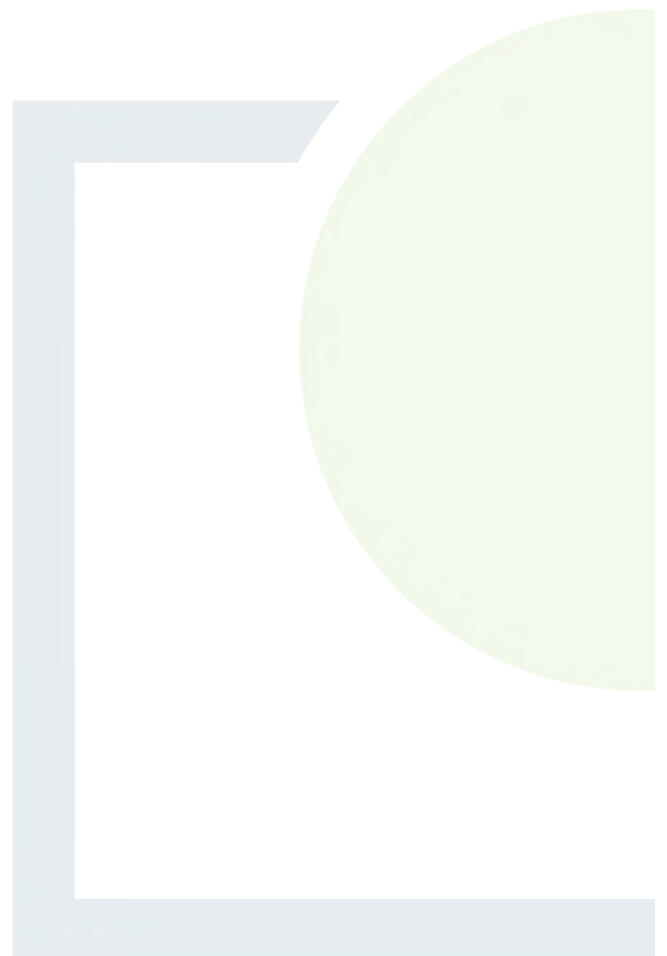
VP	Surveyor	Date	Start	End	Cloud	Viewshed Fully Visible	Precipitation	Wind Speed (Beaufort)	Wind Direction
+ Annagh Fields East									
Annagh Fields East	BOM	14/01/2025	07:30	09:20	8	Yes	Dry	1	
Annagh Fields East	BOM	21/01/2025	16:00	18:45	4	Yes	Dry	2	W
Ballyroe Quarry	BOM	22/01/2025	16:50	18:35	1	Yes	Dry	1	W
Annagh Fields East	BOM	10/02/2025	17:30	18:40	8	Yes	Dry	2	W
Annagh Fields East	BOM	18/02/2025	17:00	19:00	6	Yes	Dry	3	
Annagh Bog	BOM	19/02/2025	06:45	07:30	1	Yes	Dry	1	SE
Annagh Bog	BOM	21/02/2025	18:00	19:10	2	Yes	Dry	2	
Annagh Bog + Annagh Fields East	BOM	21/02/2025	18:00	19:10	2	Yes	Dry	2	
Annagh Fields East	BOM	25/02/2025	06:30	09:00	3	Yes	Showers	1	W
Annagh Fields East	BOM	10/03/2025	06:20	08:30	2	Yes	Dry	1	NE
Annagh Fields East	BOM	10/03/2025	17:20	19:35	3	Yes	Dry	1	NE
Annagh Fields East	BOM	13/03/2025	18:00	19:20	8	Yes	Dry	2	NE
Ballyroe Quarry	BOM	18/03/2025	17:20	19:20	2	Yes	Dry	2	
Annagh Fields East	BOM	24/03/2025	17:20		7	Yes	Dry	1	W
Annagh Bog	BOM	25/03/2025	06:10	08:40	2	Yes	Dry	2	SW
Annagh Fields East	BOM	31/03/2025	06:40	09:00	5	Yes	Dry	1	E
Annagh Fields East	BOM	04/04/2025	18:35	21:00	6	Yes	Dry	3	
Annagh Fields East	BOM	06/04/2025	06:05	08:15	7	Yes	Dry	2	
Annagh Bog	BOM	07/04/2025	06:00	09:15	4	Yes	Dry	2	
Annagh Fields East	BOM	21/11/2024	07:05	10:00	8	Yes	Snow	3	NW



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APPENDIX 5

Swan VP survey results



Appendix 5 – Swan VP Survey Results

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 23/24	Annagh Fields East	04/03/2024	1	Whooper Swan	5	16:24	10	3	7			
Winter 23/24	Annagh Fields East	04/03/2024	2	Whooper Swan	26	16:26	14	14				
Winter 23/24	Annagh Fields East	04/03/2024	3	Whooper Swan	43	16:27	16	16				
Winter 23/24	Annagh Fields East	04/03/2024	4	Whooper Swan	7	16:28	14	6	2	6		
Winter 23/24	Annagh Fields East	04/03/2024	5	Whooper Swan	15	19:03	11	11				Short flight to flooded field to roost
Winter 23/24	Annagh Fields East	04/03/2024	6	Whooper Swan	20	19:04	6	6				Short flight to flooded field to roost
Winter 23/24	Annagh Fields East	04/03/2024	7	Whooper Swan	30	19:05	5	5				Short flight to flooded field to roost
Winter 23/24	Annagh Fields East	03/02/2024	8	Whooper Swan	5	08:01	8	8				Flight from roost at ballyroe quarry
Winter 23/24	Annagh Fields East	03/02/2024	9	Whooper Swan	10	08:02	5	5				
Winter 23/24	Annagh Fields East	03/02/2024	10	Whooper Swan	5	08:04	6	6				
Winter 23/24	Annagh Fields East	03/02/2024	11	Whooper Swan	26	08:06	5	5				
Winter 23/24	Annagh Fields East	03/02/2024	12	Whooper Swan	20	08:11	6	6				

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 23/24	Annagh Fields East	03/02/2024	13	Greylag Goose	16	10:40	7	7				
Winter 23/24	Annagh Fields East	03/02/2024	14	Greylag Goose	16	10:48	6	6				
Winter 23/24	Annagh Fields East	03/02/2024	15	Greylag Goose	14	11:02	20	2	18			
Winter 23/24	Annagh Fields East	29/03/2024	16	Whooper Swan	6	06:10	10	4	4	2		Landed at grazing site
Winter 23/24	Annagh Fields East	05/12/2023	17	Kestrel	1	07:00	300	300				Flight to perch
Winter 23/24	Annagh Fields East	05/12/2023	18	Whooper Swan	5	14:00						Grazing
Winter 23/24	Annagh Fields East	18/11/2023	156	Whooper Swan	35	12:00						Grazing site
Winter 23/24	Annagh Fields East	18/11/2023	19	Greylag Goose	17	12:00						Grazing with WS
Winter 23/24	Annagh Fields East	18/11/2023	21	Whooper Swan	4	12:43	4	4				
Winter 23/24	Annagh Fields East	18/11/2023	22	Whooper Swan	44	17:24	13	13				Flock departure
Winter 23/24	Annagh Fields East	01/11/2023	23	Whooper Swan	20	16:05	60	60				Into roost site
Winter 23/24	Annagh Fields East	01/11/2023	24	Whooper Swan	12	16:24	26	26				Leaving roost
Winter 23/24	Annagh Fields East	01/11/2023	25	Whooper Swan	2	17:55	5	5				Into roost site
Winter 24/25	Annagh Fields East	21/10/224	26	Whooper Swan	27	18:32	10	10				Roost flight to west

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	21/10/2024	N/A	Whooper Swan	27	12:00						10 Immature, no flightline
Winter 24/25	Kilcolman	21/10/2024	N/A	Teal	20	15:00						Low water level
Winter 24/25	Kilcolman	21/10/2024	N/A	Wigeon	15	15:30						
Winter 24/25	Annagh Fields East	29/10/2024	N/A	Whooper Swan	37							10 Immature, no flightlines
Winter 24/25	Kilcolman	29/10/2024	N/A	Teal	15							Low water level
Winter 24/25	Buttevant Bridge	29/10/2024	N/A	Mallard	2							
Winter 24/25	Annagh Fields East	28/10/2024	29	Whooper Swan	57	16:00	All Day					Grazing Herd
Winter 24/25	Annagh Fields East	28/10/2024	30	Whooper Swan	15	18:20	15	15				
Winter 24/25	Annagh Fields East	28/10/2024	144	Whooper Swan	42	18:24	10	10				
Winter 24/25	Annagh Bog	29/10/2024	31	Whooper Swan	60							At roost on arrival
Winter 24/25	Annagh Bog	29/10/2024	32	Greylag Goose	20							At roost on arrival incl 8 immature
Winter 24/25	Annagh Bog	29/10/2024	33	Whooper Swan	8	07:20	10		10			
Winter 24/25	Annagh Bog	29/10/2024	34	Whooper Swan	4	07:30	10		10			
Winter 24/25	Annagh Bog	29/10/2024	35	Greylag Goose	16	07:38						

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Bog	29/10/2024	36	Whooper Swan	27	07:46	10		10			Flock split when over conifer
Winter 24/25	Annagh Bog	29/10/2024	37	Whooper Swan	21	08:08	10		10			
Winter 24/25	Annagh Bog	29/10/2024	N/A	Shoveler	6							Remained on site for duration of visit
Winter 24/25	Annagh Bog	29/10/2024	N/A	Mallard	10							Remained on site for duration of visit
Winter 24/25	Annagh Bog	29/10/2024	N/A	Wigeon	35							Remained on site for duration of visit
Winter 24/25	Annagh Bog	29/10/2024	N/A	Teal	50							Remained on site for duration of visit
Winter 24/25	Annagh Fields East	29/10/2024	42	Whooper Swan	46	09:00	All Day					Incl 6 immature
Winter 24/25	Annagh Bog	12/11/2024	43	Greylag Goose	15	07:40	15		15			
Winter 24/25	Annagh Fields East	12/11/2024	44	Greylag Goose	20	07:43	15		15			
Winter 24/25	Annagh Fields East	12/11/2024	45	Whooper Swan	71	07:55						Swans on site on arrival present and grazing
Winter 24/25	Annagh Fields East	12/11/2024	46	Greylag Goose	32	09:08						
Winter 24/25	Ballyroe Quarry	12/11/2024	47	Whooper Swan	15	17:35	15	15				Difficult to count with fog

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Ballyroe Quarry	12/11/2024	48	Whooper Swan	25	17:43	15	15				Difficult to count with fog
Winter 24/25	Ballyroe Quarry	12/11/2024	49	Whooper Swan	15	17:50	15	15				Difficult to count with fog
Winter 24/25	Ballyroe Quarry	21/11/2024	50	Whooper Swan	15	16:24	10					
Winter 24/25	Ballyroe Quarry	21/11/2024	51	Whooper Swan	6	16:45	10					
Winter 24/25	Ballyroe Quarry	21/11/2024	52	Whooper Swan	10	17:02	10					
Winter 24/25	Ballyroe Quarry	21/11/2024	53	Greylag Goose	22	17:03	12					
Winter 24/25	Ballyroe Quarry	21/11/2024	54	Whooper Swan	19	17:07	10					
Winter 24/25	Ballyroe Quarry	21/11/2024	55	Whooper Swan	15	17:32	10					
Winter 24/25	Ballyroe Quarry	21/11/2024	N/A	Mallard	50							Arrived to roost
Winter 24/25	Ballyroe Quarry	21/11/2024	N/A	Teal	50							Arrived to roost
Winter 24/25	Ballyroe Quarry	21/11/2024	N/A	Wigeon	50							Arrived to roost
Winter 24/25	Annagh Fields East	27/11/2024	152	Whooper Swan	87	16:00						Grazing at annagh south
Winter 24/25	Annagh Fields East	27/11/2024	153	Greylag Goose	60	17:20						
Winter 24/25	Annagh Fields East	27/11/2024	154	Greylag Goose	40	17:41						

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	27/11/2024	155	Whooper Swan	87	17:50						swans still in situ
Winter 24/25	Annagh Fields East	27/11/2024	145	Whooper Swan	61	07:20						
Winter 24/25	Annagh Fields East	27/11/2024	146	Greylag Goose	105	07:20						
Winter 24/25	Annagh Fields East	27/11/2024	56	Whooper Swan	9	08:30	10	10				First birds left roost
Winter 24/25	Annagh Fields East	27/11/2024	147	Whooper Swan	69	09:05						grazing, no flight
Winter 24/25	Annagh Fields East	27/11/2024	148	Greylag Goose	100	07:05						
Winter 24/25	Annagh Fields East	21/12/2024	56	Whooper Swan	40	16:55	7		7			
Winter 24/25	Annagh Fields East	21/12/2024	57	Whooper Swan	50	16:58	8		8			
Winter 24/25	Annagh Fields East	21/12/2024	58	Whooper Swan	28	17:15						Probably all birds walked to the river, visibility v. hard
Winter 24/25	Annagh Fields East	21/12/2024	59	Whooper Swan	6	17:16	4	4				
Winter 24/25	Annagh Fields East	21/12/2024	60	Whooper Swan	80	15:30						Grazing annagh south fields west
Winter 24/25	Annagh Fields East	21/12/2024	61	Whooper Swan	28	15:30						Grazing annagh south fields east
Winter 24/25	Annagh Fields East	27/12/2024	62	Whooper Swan	5	17:18	8	8				poor visibility, may have turned east roost flight

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	27/12/2024	63	Whooper Swan	3	17:20	6	6				poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	64	Whooper Swan	4	17:21	5	5				poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	65	Whooper Swan	2	17:23	6	6				poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	66	Whooper Swan	4	17:23	7	7				poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	67	Whooper Swan	19	17:24						poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	68	Whooper Swan	18	17:26						poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	69	Whooper Swan	15	17:29						poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	70	Whooper Swan	25	17:30						poor visibility, may have turned east roost flight
Winter 24/25	Annagh Fields East	27/12/2024	71	Whooper Swan	>97	16:47						Grazing
Winter 24/25	Annagh Bog	01/01/2025	72	Whooper Swan	5	07:56	10	10				
Winter 24/25	Annagh Bog	01/01/2025	73	Greylag Goose	80	07:45	25mins					5-80 birds

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	01/01/2025	74	Whooper Swan	50	09:04	45	45				Disturbed by horses landed in annagh fields east
Winter 24/25	Annagh Fields East	01/01/2025	75	Whooper Swan	2	09:10	60	60				from caherconnor, landed at annagh fields east
Winter 24/25	Annagh Fields East	14/01/2025	76	Whooper Swan	66	07:40						Predawn? Herd - overnight roost
Winter 24/25	Annagh Fields East	21/01/2025	77	Whooper Swan	76	16:00						Grazing
Winter 24/25	Annagh Fields East	21/01/2025	78	Whooper Swan	3	17:40	15	15				Direction Ballyroe pond
Winter 24/25	Annagh Fields East	21/01/2025	79	Whooper Swan	8	17:55	15	15				
Winter 24/25	Annagh Fields East	21/01/2025	80	Whooper Swan	1	17:55	20	20				Flight north over clearfell
Winter 24/25	Annagh Fields East	21/01/2025	81	Whooper Swan	3	17:59	15	15				
Winter 24/25	Annagh Fields East	21/01/2025	82	Whooper Swan	10	18:02	15	15				
Winter 24/25	Annagh Fields East	21/01/2025	83	Whooper Swan	5	18:06	15	15				
Winter 24/25	Annagh Fields East	21/01/2025	156	Whooper Swan	55	18:07	15	15				No swans remaining at grazing site
Winter 24/25	Ballyroe Quarry	22/01/2025	85	Whooper Swan	10	17:59	10	10				

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Ballyroe Quarry	22/01/2025	86	Whooper Swan	8	18:01	10	10				
Winter 24/25	Ballyroe Quarry	22/01/2025	87	Whooper Swan	25	18:08	10	10				
Winter 24/25	Ballyroe Quarry	22/01/2025	88	Whooper Swan	2	18:10	10	10				
Winter 24/25	Ballyroe Quarry	22/01/2025	89	Whooper Swan	35	18:12	10	10				
Winter 24/25	Ballyroe Quarry	22/01/2025	90	Whooper Swan	5	18:15	10	10				
Winter 24/25	Annagh Fields East	10/02/2025	91	Whooper Swan	23	16:35						Grazing
Winter 24/25	Annagh Fields East	10/02/2025	92	Whooper Swan	45	16:35						Grazing
Winter 24/25	Annagh Fields East	10/02/2025	93	Whooper Swan	45	17:15	14	14				Disturbed by horses
Winter 24/25	Annagh Fields East	10/02/2025	94	Whooper Swan	23	17:40	8	8				Roost Flight
Winter 24/25	Annagh Fields East	18/02/2025	95	Whooper Swan	17	17:30						Annagh fields east
Winter 24/25	Annagh Fields East	18/02/2025	96	Whooper Swan	33	17:50						Caherconnor
Winter 24/25	Annagh Fields East	18/02/2025	97	Whooper Swan	3	18:17	6	6				
Winter 24/25	Annagh Fields East	18/02/2025	98	Whooper Swan	2	18:21	7	7				
Winter 24/25	Annagh Fields East	18/02/2025	99	Whooper Swan	8	18:23	6	6				

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	18/02/2025	100	Whooper Swan	20	18:26	8	8				
Winter 24/25	Annagh Fields East	18/02/2025	101	Whooper Swan	60	18:32	14		14			Birds from Annagh fields east
Winter 24/25	Annagh Bog	19/02/2025	102	Greylag Goose	8	07:11						
Winter 24/25	Annagh Bog	21/02/2025	103	Whooper Swan	54	18:00	>60min					Grazing
Winter 24/25	Annagh Bog	21/02/2025	N/A	Whooper Swan	54	19:03						Herd remained at roost on flooded grazing fields
Winter 24/25	Annagh Fields East	21/02/2025	N/A	Greylag Goose	70							
Winter 24/25	Annagh Fields East	25/02/2025	105	Whooper Swan	82	06:30						
Winter 24/25	Annagh Fields East	25/02/2025	106	Whooper Swan	2	07:33	6	6				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	107	Whooper Swan	8	07:48	10	10				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	108	Whooper Swan	4	07:51	10	10				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	109	Whooper Swan	5	07:52	11	11				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	110	Whooper Swan	5	07:56	10	10				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	111	Whooper Swan	9	08:00	12	12				Overnight roost before flight east

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	25/02/2025	112	Whooper Swan	6	08:03	10	10				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	113	Whooper Swan	16	08:05	14	14				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	114	Whooper Swan	2	08:20	8	8				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	115	Whooper Swan	12	08:30	11	11				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	116	Whooper Swan	4	08:33	10	10				Overnight roost before flight east
Winter 24/25	Annagh Fields East	25/02/2025	117	Whooper Swan	2	08:46	8	8				Overnight roost before flight east
Winter 24/25	Annagh Fields East	10/03/2025	118	Whooper Swan	57	07:38	6	6				Flight from roost, not ballyroe quarry pond
Winter 24/25	Annagh Fields East	10/03/2025	119	Whooper Swan	11	07:40	7	7				Flight from roost, not ballyroe quarry pond
Winter 24/25	Annagh Fields East	10/03/2025	120	Whooper Swan	3	07:50	7	7				Flight from roost, not ballyroe quarry pond
Winter 24/25	Annagh Fields East	10/03/2025	143	Whooper Swan	80	07:40						80 WS Grazing since 07:40
Winter 24/25	Annagh Fields East	10/03/2025	121	Whooper Swan	38	19:07	12	12				All birds flew in same direction
Winter 24/25	Annagh Fields East	10/03/2025	122	Whooper Swan	63	19:09	12	12				All birds flew in same direction

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Annagh Fields East	10/03/2025	123	Whooper Swan	12	19:13	12	12				All birds flew in same direction
Winter 24/25	Annagh Fields East	10/03/2025	124	Whooper Swan	30	19:14	14	14				All birds flew in same direction
Winter 24/25	Annagh Fields East	13/03/2025	125	Whooper Swan	58							Daytime grazing herd
Winter 24/25	Annagh Fields East	13/03/2025	126	Whooper Swan	8	18:57	6	6				same flightline for all roost movement
Winter 24/25	Annagh Fields East	13/03/2025	127	Whooper Swan	14	18:58	6	6				same flightline for all roost movement
Winter 24/25	Annagh Fields East	13/03/2025	128	Whooper Swan	16	19:01	8	8				same flightline for all roost movement
Winter 24/25	Annagh Fields East	13/03/2025	129	Whooper Swan	14	19:03	7	7				same flightline for all roost movement
Winter 24/25	Annagh Fields East	13/03/2025	130	Whooper Swan	6	19:04	7	7				same flightline for all roost movement
Winter 24/25	Ballyroe Quarry	18/03/2025	131	Whooper Swan	4	18:39	10	10				
Winter 24/25	Ballyroe Quarry	18/03/2025	132	Whooper Swan	10	18:48	15	15				
Winter 24/25	Ballyroe Quarry	18/03/2025	133	Whooper Swan	47	18:51	15	15				
Winter 24/25	Ballyroe Quarry	18/03/2025	134	Kestrel	1	18:51	42	42				

Season	VP	Date	ID	Species	Quantity	Time	Duration	0-25m	25-50m	50-100m	100-175m	Notes
Winter 24/25	Ballyroe Quarry	18/03/2025	135	Whooper Swan	20	18:57	15	15				
Winter 24/25	Ballyroe Quarry	18/03/2025	136	Whooper Swan	5	18:58	15	15				
Winter 24/25	Ballyroe Quarry	18/03/2025	137	Whooper Swan	4	18:59	16	16				
Winter 24/25	Annagh Fields East	24/03/2025	138	Whooper Swan	50	17:15						Grazing herd at annagh fields east
Winter 24/25	Annagh Fields East	24/03/2025	139	Whooper Swan	18	19:18	12	12				
Winter 24/25	Annagh Fields East	24/03/2025	140	Whooper Swan	26	19:20	12	12				
Winter 24/25	Annagh Fields East	24/03/2025	141	Whooper Swan	6	19:21	10	10				
Winter 24/25	Annagh Bog	25/03/2025	N/A	Teal								
Winter 24/25	Annagh Bog	25/03/2025	N/A	Wigeon								
Winter 24/25	Annagh Bog	25/03/2025	N/A	Mallard								
Winter 24/25	Annagh Fields East	31/03/2025	142	Greylag Goose	8	08:05	>180					
Winter 24/25	Annagh Fields East	04/04/2025	N/A	Mallard								
Winter 24/25	Annagh Fields East	06/04/2025	N/A	Mallard								
Winter 24/25	Annagh Fields East	06/04/2025	N/A	Teal								

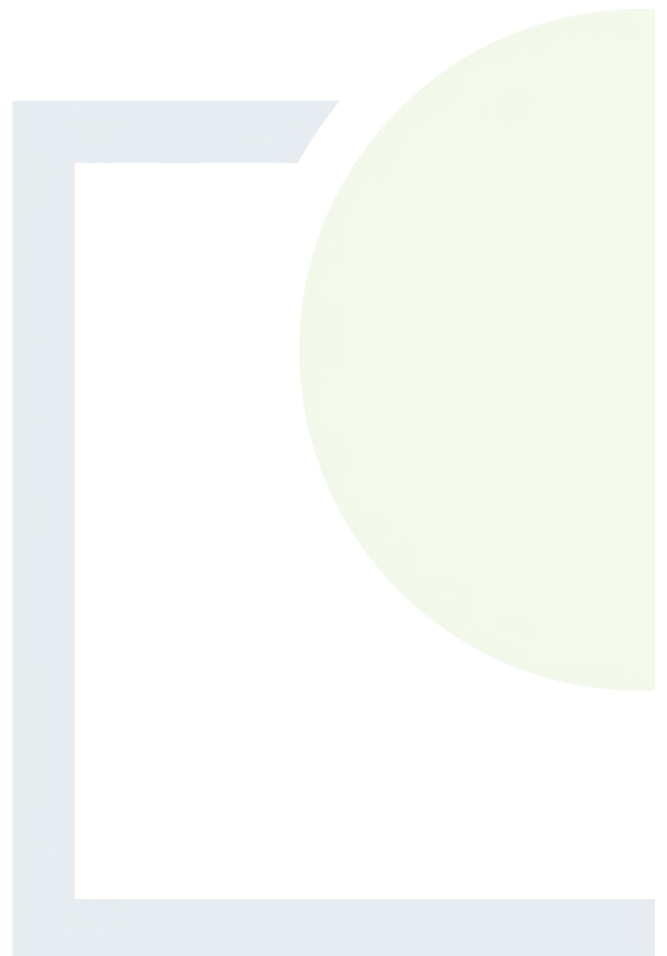
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Winter 24/25	Annagh Fields East	06/04/2025	N/A	Shoveler								
Winter 24/25	Annagh Fields East	06/04/2025	N/A	Wigeon								
Winter 24/25	Annagh Bog	07/04/2025	N/A	Greylag Goose	12	06:00						On site for duration of survey
Winter 24/25	Annagh Bog	07/04/2025	N/A	Mallard								
Winter 24/25	Annagh Bog	07/04/2025	N/A	Teal								
Winter 24/25	Annagh Bog	07/04/2025	N/A	Shoveler								
Winter 24/25	Annagh Fields East	21/11/2024	149	Whooper Swan	84	08:04	10					Poor visibility but total flock of 84 WS
Winter 24/25	Annagh Fields East	21/11/2024	150	Greylag Goose	Not recorded	07:50	8					Unknown quantity in poor visibility
Winter 24/25	Annagh Fields East	21/11/2024	151	Greylag Goose	12	08:00	10					

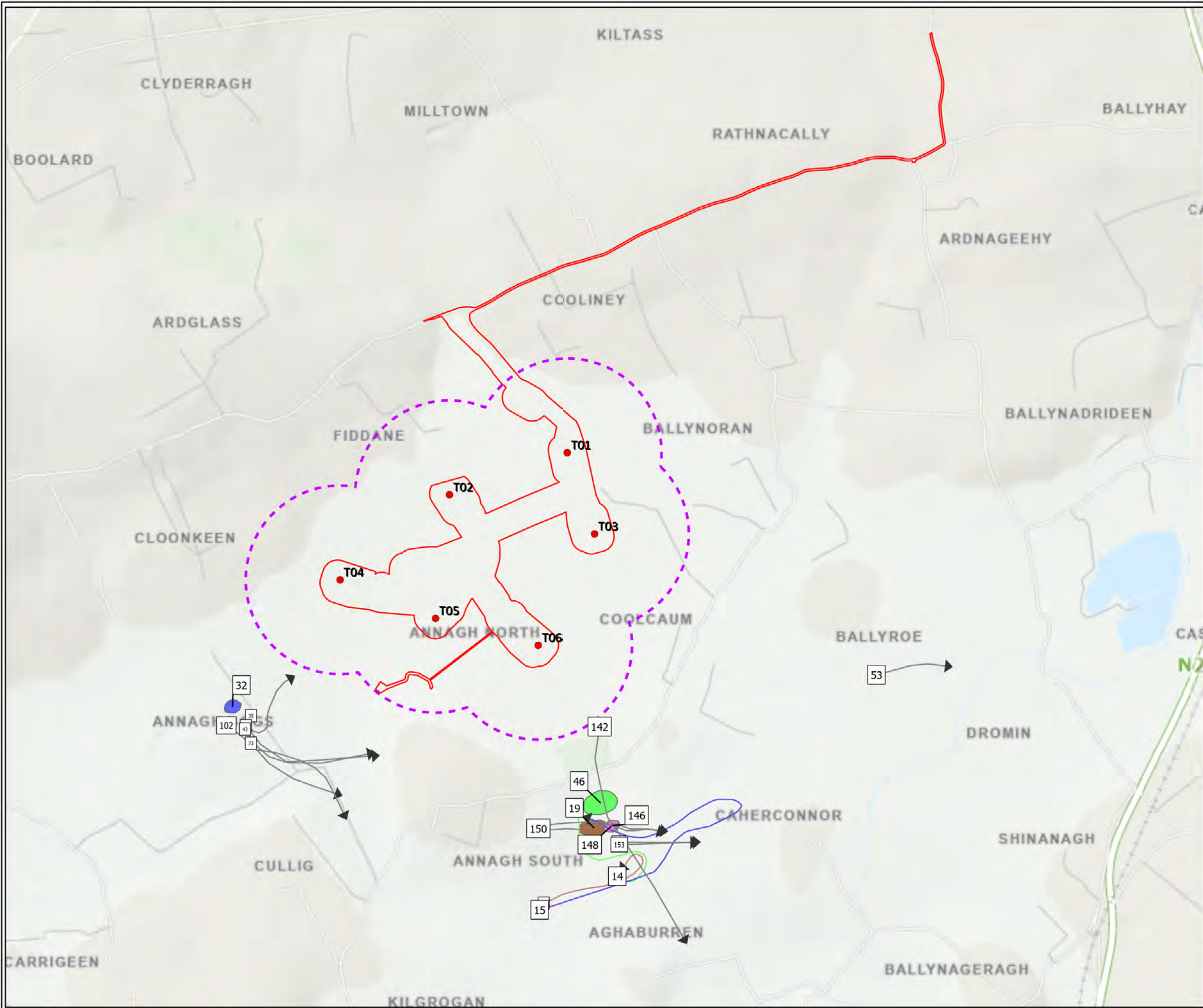


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APPENDIX 6

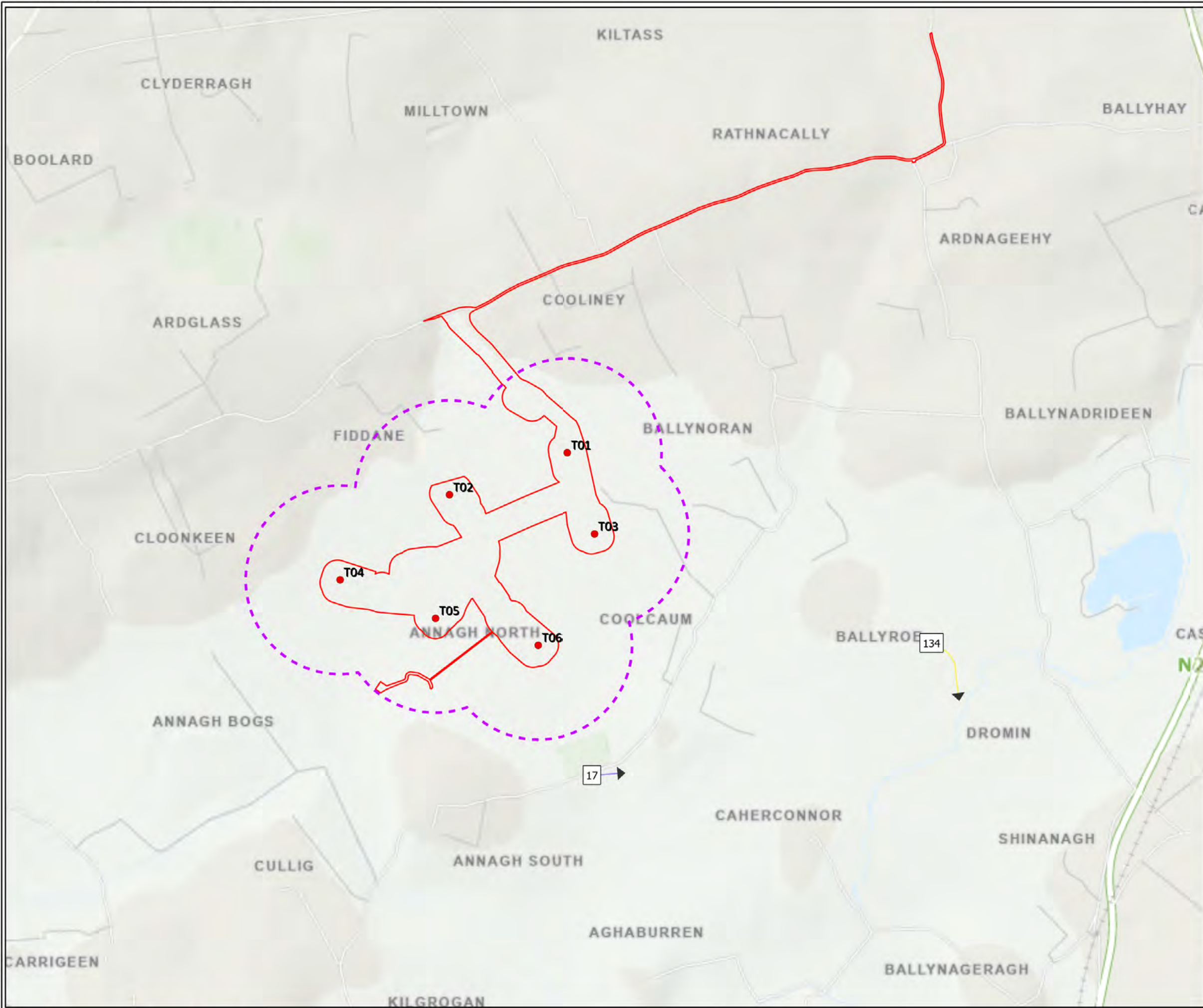
Swan VP avian activity
mapping





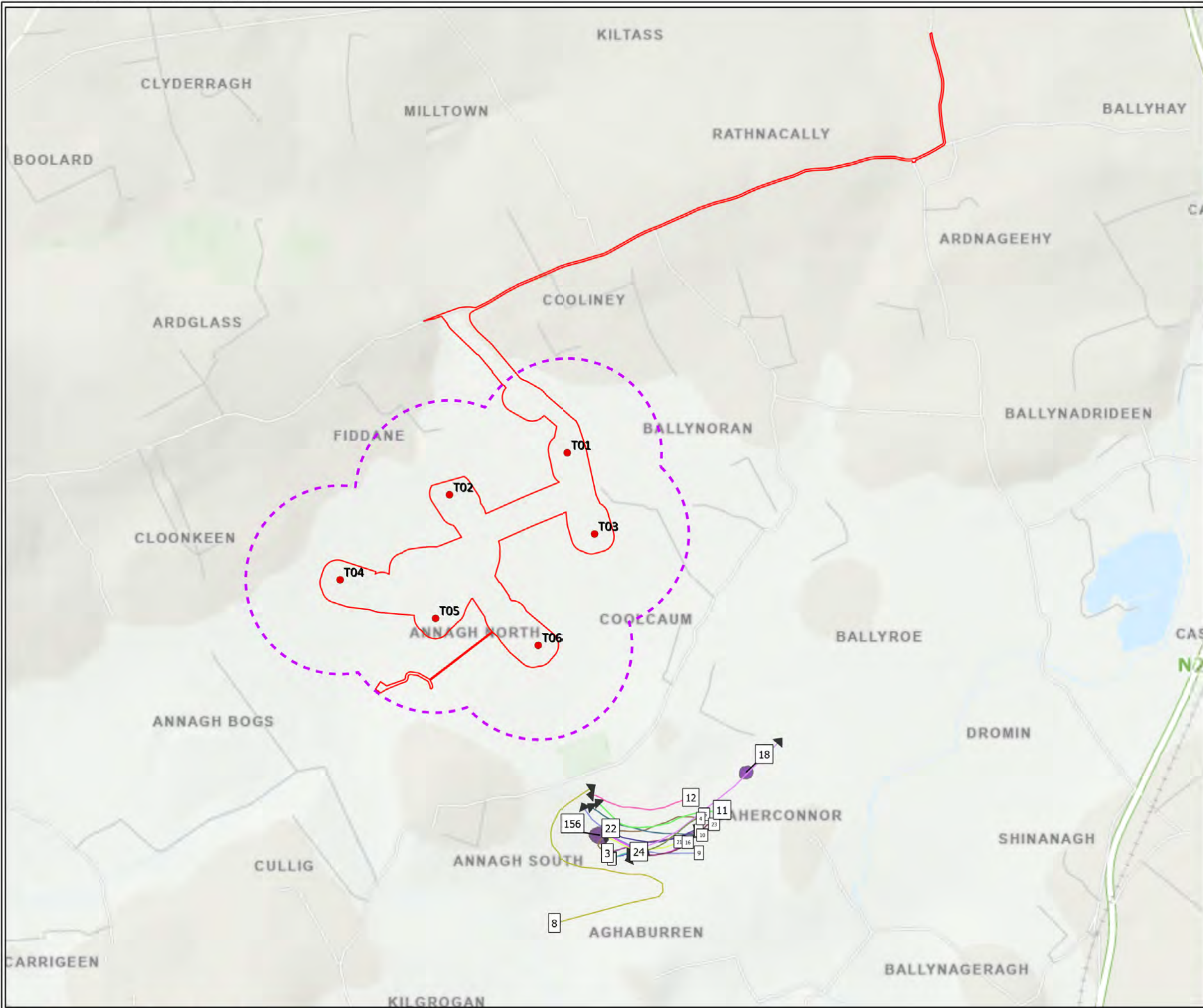
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 - 14,03/02/2024,10:48
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 - 35,29/10/2024,07:38
 - 43,12/11/2024,07:40
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 - 53,21/11/2024,17:03
 - 73,01/01/2025,07:45
 - 102,19/02/2025,07:11
 - 142,31/03/2025,08:05
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 - 151,21/11/2024,08:00
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 - SNH Buffer
 - Turbine Layout
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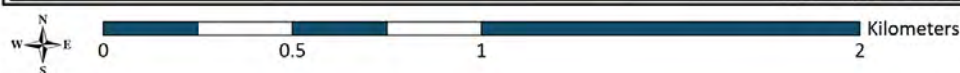
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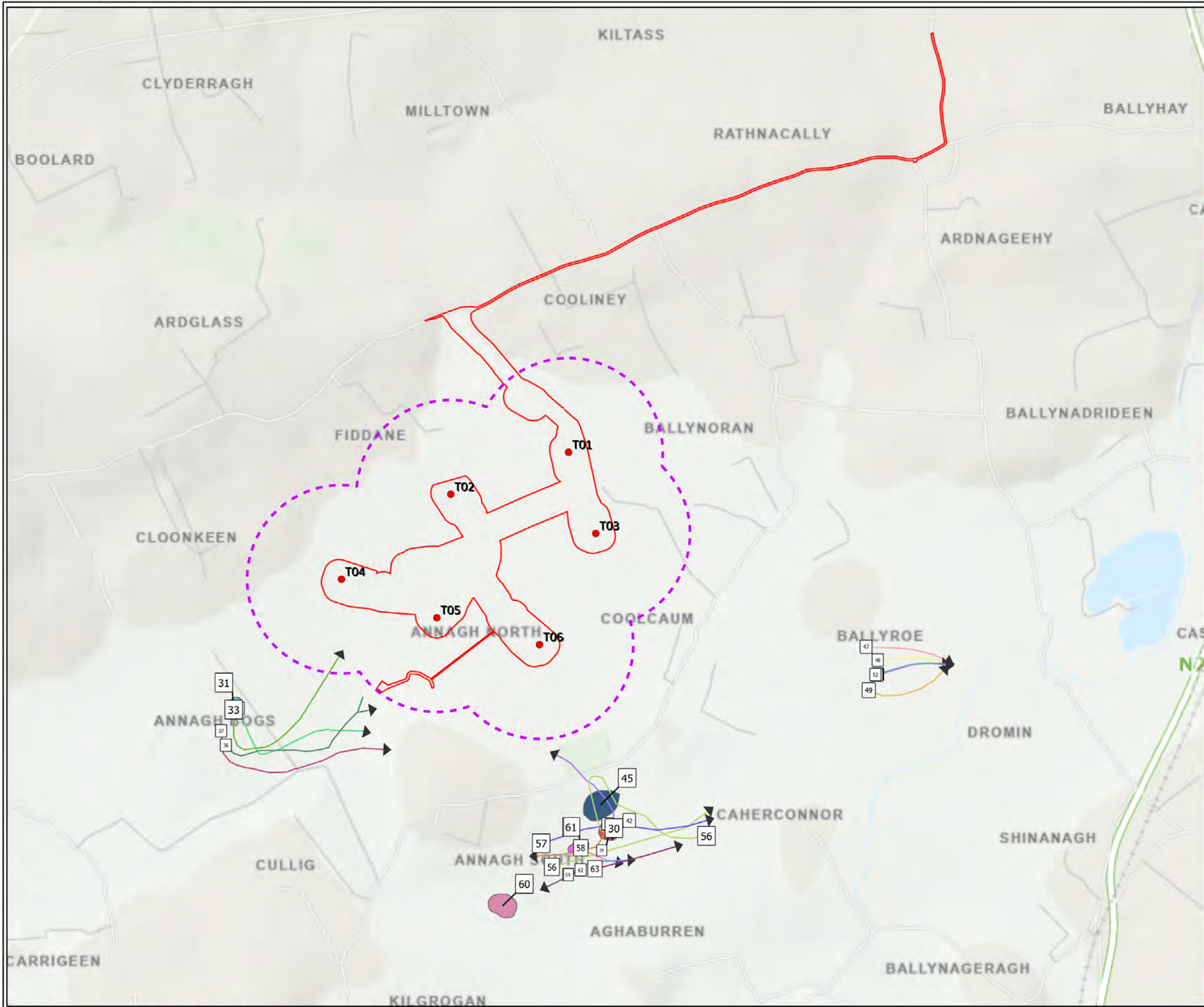
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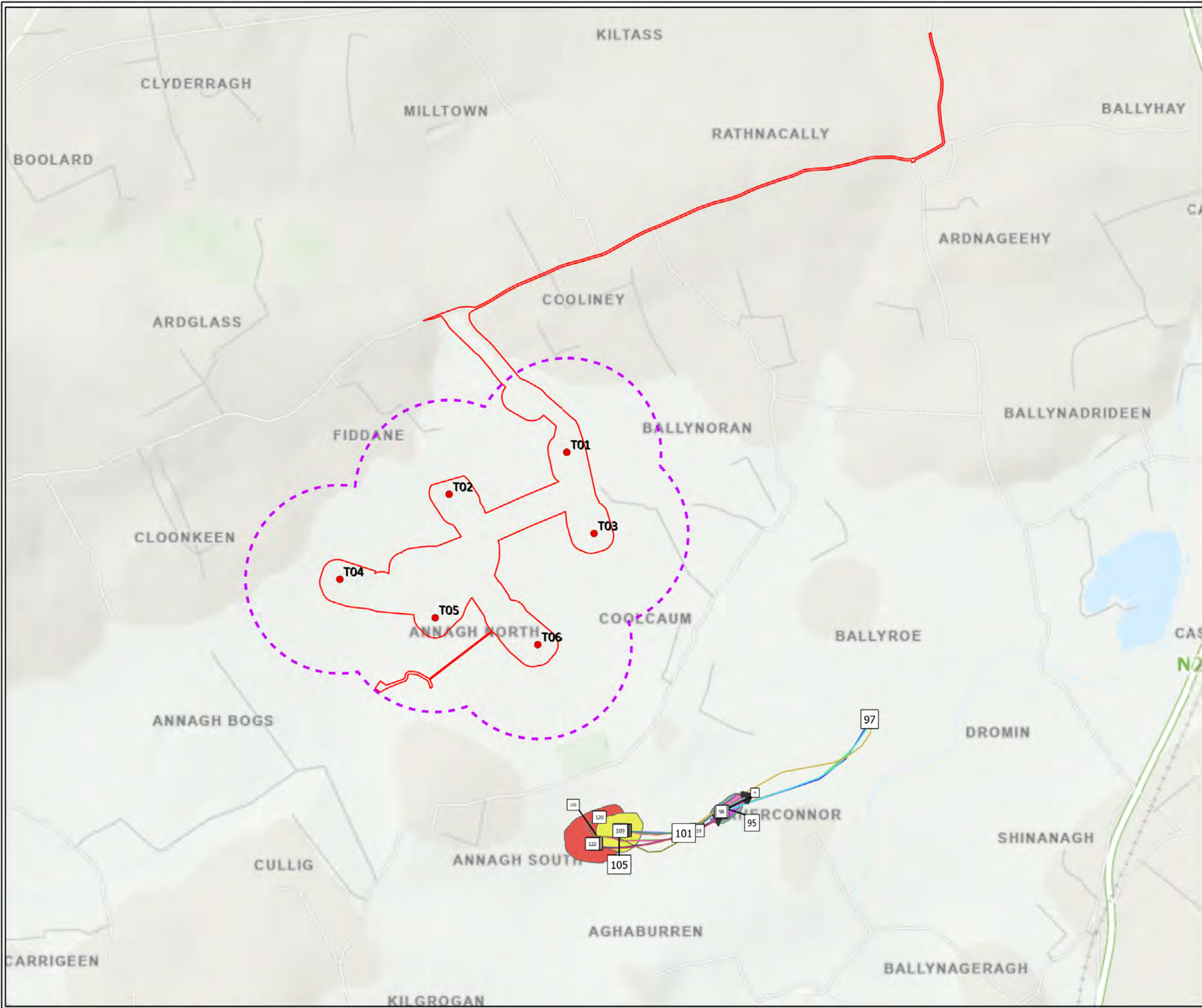
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DATE:	01/07/2025
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APPENDIX 7

Hinterland survey schedule



Site	Dates Surveyed
Annagh Bogs	06/11/2024 27/11/2024
Annagh Fields East	22/10/2024 21/10/2024 29/10/2024 06/11/2024 21/11/2024 27/11/2024 23/12/2024 27/12/2024 01/01/2025 27/01/2025 10/02/2025 18/02/2025 13/03/2025 18/03/2025 24/03/2025 30/03/2025
Annagh Fields West	25/10/2024 06/11/2024 21/11/2024 27/11/2024 23/12/2024 27/12/2024 01/01/2025
Awbeg and Buttevant Bridges	10/10/2023
Awbeg Bridge	28/11/2023 22/12/2023 08/01/2024 26/02/2024
Ballyhea Quarries	10/10/2023
Ballyhea Quarry	28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 22/10/2024 27/01/2025 10/02/2025 18/03/2025
Ballyhea SAC	12/03/2024
Ballyhouras	10/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 29/03/2024
Ballyroe Fields	10/02/2025
Ballyroe Quarry Pond	18/03/2025
Blackwater Flats	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024

Site	Dates Surveyed
	26/02/2024 12/03/2024 23/03/2024
Buttevant Bridge	29/10/2023 08/01/2024 26/02/2024 12/03/2024 22/10/2024 25/10/2024 06/11/2024 27/11/2024 27/01/2025 18/03/2025
Caherconnor	29/10/2023 08/01/2024 12/03/2024 23/03/2024 22/10/2024 01/01/2025 27/01/2025 10/02/2025 18/02/2025
Caherconnor East	27/01/2025
Castle Lake	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 23/03/2024
Eagle Lough	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 23/03/2024 27/01/2025 18/03/2025 07/04/2025
Glanmore Flats	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024
Jordanstown	08/01/2024 26/02/2024 12/03/2024 23/03/2024 27/11/2024 21/01/2025

Site	Dates Surveyed
	27/01/2025 10/02/2025 13/03/2025 17/03/2025 18/03/2025 24/03/2025
Kilcolman Bog SPA	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 23/03/2024 22/10/2024 21/10/2024 25/10/2024 06/11/2024 21/11/2024 23/12/2024 01/01/2025 27/01/2025 10/02/2025 13/03/2025 07/04/2025
Kilcolman Fields	10/10/2023 29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 23/03/2024 22/10/2024 21/10/2024 25/10/2024 06/11/2024 21/11/2024 23/12/2024 01/01/2025 27/01/2025 10/02/2025 13/03/2025 07/04/2025
Lisballyhea	29/10/2023 28/11/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 23/03/2024 27/11/2024 27/12/2024 27/01/2025 10/02/2025

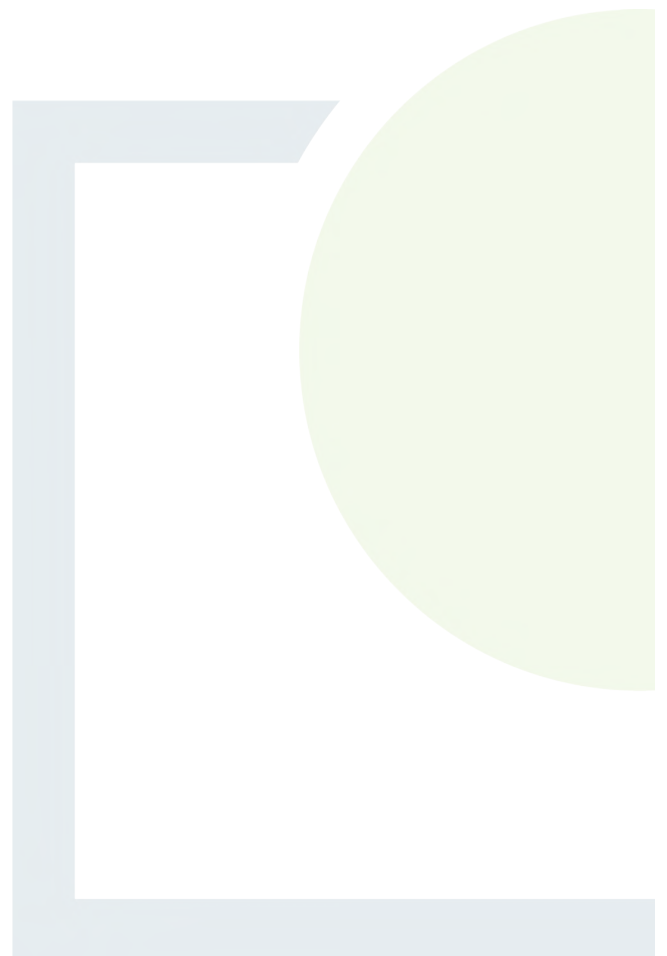
Site	Dates Surveyed
Mountbridget	10/10/2023 29/10/2023 22/12/2023 08/01/2024 26/02/2024 12/03/2024 27/12/2024 21/01/2025 27/01/2025 10/02/2025 18/02/2025
Walshestown	08/01/2024 12/03/2024 23/03/2024 23/12/2024



DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

APPENDIX 8

Hinterland survey results



Appendix 8 – Hinterland Survey Results

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	10/10/2023	8/8	good	none	1	SW	Shoveler	2	
Winter 23/24	Kilcolman Bog SPA	10/10/2023	8/8	good	none	1	SW	Mute Swan	1	
Winter 23/24	Kilcolman Bog SPA	10/10/2023	8/8	good	none	1	SW	Moorhen	1	
Winter 23/24	Ballyhouras	10/10/2023	8/8	good	none	1	SW	Jay	1	
Winter 23/24	Ballyhea Quarries	10/10/2023	8/8	good	none	1	SW	Curlew	32	no wildfowl present, CU in adjacent fields
Winter 23/24	Ballyroe Quarry Pond	10/10/2023	8/8	good	none	1	SW	Mute Swan	2	
Winter 23/24	Awbeg Bridge	10/10/2023	7/8	good	none	1	SW	#N/A		no wildfowl
Winter 23/24	Glanmore Flats	10/10/2023	7/8	good	none	1	SW	#N/A		no wildfowl
Winter 23/24	Awbeg and Buttevant Bridges	10/10/2023	7/8	good	none	1	SW	Little Egret	1	
Winter 23/24	Awbeg and Buttevant Bridges	10/10/2023	7/8	good	none	1	SW	Buzzard	1	
Winter 23/24	Mountbridget	10/10/2023	7/8	good	none	1	SW	#N/A		no wildfowl
Winter 23/24	Blackwater Flats	10/10/2023	7/8	good	none	1	SW	#N/A		no wildfowl
Winter 23/24	Castle Lake	10/10/2023	7/8	good	none	1	SW	#N/A		Livestock present
Winter 23/24	Eagle Lough	10/10/2023	7/8	good	none	1	SW	Moorhen	1	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Eagle Lough	10/10/2023	7/8	good	none	1	SW	Buzzard	3	
Winter 23/24	Kilcolman Bog SPA	29/10/2023	8/8	poor	none	1	SW	Shoveler	30	fog, vis limited to 500-700m
Winter 23/24	Kilcolman Bog SPA	29/10/2023	8/8	poor	none	1	SW	Teal	100	
Winter 23/24	Kilcolman Bog SPA	29/10/2023	8/8	poor	none	1	SW	Wigeon	50	
Winter 23/24	Kilcolman Bog SPA	29/10/2023	8/8	poor	none	1	SW	Coot	1	
Winter 23/24	Kilcolman Bog SPA	29/10/2023	8/8	poor	none	1	SW	Moorhen	4	
Winter 23/24	Glanmore Flats	29/10/2023	8/8	poor	none	1	SW	Mute Swan	2	
Winter 23/24	Glanmore Flats	29/10/2023	8/8	poor	none	1	SW	Greylag Goose	20	
Winter 23/24	Glanmore Flats	29/10/2023	8/8	poor	none	1	SW	Lesser Black-backed Gull		
Winter 23/24	Glanmore Flats	29/10/2023	8/8	poor	none	1	SW	Black-headed Gull	3	
Winter 23/24	Buttevant Bridge	29/10/2023	8/8	poor	none	1	SW	Grey Wagtail	1	
Winter 23/24	Buttevant Bridge	29/10/2023	8/8	poor	none	1	SW	Kingfisher	1	
Winter 23/24	Buttevant Bridge	29/10/2023	8/8	poor	none	1	SW	Jackdaw		
Winter 23/24	Buttevant Bridge	29/10/2023	8/8	poor	none	1	SW	Rook		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Buttevant Bridge	29/10/2023	8/8	poor	none	1	SW	Woodpigeon		
Winter 23/24	Eagle Lough	29/10/2023	8/8	fair	none	1	SW	Buzzard	3	
Winter 23/24	Eagle Lough	29/10/2023	8/8	fair	none	1	SW	Rook		
Winter 23/24	Eagle Lough	29/10/2023	8/8	fair	none	1	SW	Moorhen	4	
Winter 23/24	Eagle Lough	29/10/2023	8/8	fair	none	1	SW	Mallard	2	
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Whooper Swan	49	
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Mallard	20	min. count
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Lapwing	30	
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Lesser Black-backed Gull	6	
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Greylag Goose	80	
Winter 23/24	Lisballyhea	29/10/2023	8/8	fair	none	1	SW	Mute Swan	5	
Winter 23/24	Castle Lake	29/10/2023	8/8	good	none	1	SW	Moorhen	5	
Winter 23/24	Castle Lake	29/10/2023	8/8	good	none	1	SW	Starling		
Winter 23/24	Castle Lake	29/10/2023	8/8	good	none	1	SW	Pheasant	1	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Castle Lake	29/10/2023	8/8	good	none	1	SW	Rook		
Winter 23/24	Castle Lake	29/10/2023	8/8	good	none	1	SW	Magpie		
Winter 23/24	Blackwater Flats	29/10/2023	8/8	good	none	1	SW	Little Egret	1	
Winter 23/24	Blackwater Flats	29/10/2023	8/8	good	none	1	SW	Grey Heron	1	no waterfowl
Winter 23/24	Caherconnor	29/10/2023	8/8	good	none	1	SW	Little Egret	3	
Winter 23/24	Caherconnor	29/10/2023	8/8	good	none	1	SW	Lesser Black-backed Gull	50	
Winter 23/24	Caherconnor	29/10/2023	8/8	good	none	1	SW	Greylag Goose	2	
Winter 23/24	Mountbridget	29/10/2023	8/8	good	none	1	SW	#N/A		no waterfowl
Winter 23/24	Ballyroe Quarry Pond	28/11/2023	6/8	good	none	1		#N/A		no waterfowl
Winter 23/24	Awbeg Bridge	28/11/2023	6/8	good	none	1		#N/A		no waterfowl
Winter 23/24	Glanmore Flats	28/11/2023	6/8	good	none	1		#N/A		no waterfowl
Winter 23/24	Lisballyhea	28/11/2023	6/8	good	none	1		Teal	60	
Winter 23/24	Lisballyhea	28/11/2023	6/8	good	none	1		Dunlin	80	
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Rook		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Jackdaw		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Robin		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Blackbird		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Raven		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Song Thrush		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Dunnock		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Grey Heron	1	
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Little Egret	5	
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Redwing		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Fieldfare		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Bullfinch		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Woodpigeon		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Wren		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Chaffinch		
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Reed Bunting		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Blackwater Flats	28/11/2023	6/8	good	none	1		Kestrel	1	
Winter 23/24	Ballyhea Quarry	28/11/2023	6/8	good	none	1		Curlew	60	
Winter 23/24	Ballyhea Quarry	28/11/2023	6/8	good	none	1		Lapwing	40	
Winter 23/24	Ballyhea Quarry	28/11/2023	6/8	good	none	1		Mallard	17	
Winter 23/24	Eagle Lough	28/11/2023	6/8	good	none	1		Mallard	4	Access flooded, view restricted. No swans present
Winter 23/24	Castle Lake	28/11/2023	6/8	good	none	1		Moorhen	2	
Winter 23/24	Ballyhouras	28/11/2023	6/8	good	none	1		Hooded Crow		
Winter 23/24	Ballyhouras	28/11/2023	6/8	good	none	1		Raven		
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Mute Swan	1	
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Greylag Goose	6	min. count, limited view
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Mallard	22	
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Teal	80	min count
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Shoveler	95	
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Wigeon	125	min count

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	28/11/2023	6/8	good	none	1		Coot	5	
Winter 23/24	Castle Lake	22/12/2023	7/8	good	none	3	NW	Mute Swan	2	
Winter 23/24	Castle Lake	22/12/2023	7/8	good	none	3	NW	Mallard	3	access restricted by flooding, view restricted
Winter 23/24	Castle Lake	22/12/2023	7/8	good	none	3	NW	Teal	6	access restricted by flooding, view restricted
Winter 23/24	Castle Lake	22/12/2023	7/8	good	none	3	NW	Moorhen	2	access restricted by flooding, view restricted
Winter 23/24	Kilcolman Fields	22/12/2023	7/8	good	none	3	NW	Whooper Swan	6	fields south. Min count , view restricted by hedgerows
Winter 23/24	Kilcolman Fields	22/12/2023	7/8	good	none	3	NW	Greylag Goose	126	fields south and east
Winter 23/24	Kilcolman Bog SPA	22/12/2023	7/8	good	none	3	NW	Coot	21	
Winter 23/24	Kilcolman Bog SPA	22/12/2023	7/8	good	none	3	NW	Shoveler	c.85	high water level, ducks well distributed in vegetation and difficult to count
Winter 23/24	Kilcolman Bog SPA	22/12/2023	7/8	good	none	3	NW	Tufted Duck	>60	high water level, ducks well distributed in vegetation and difficult to count

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	22/12/2023	7/8	good	none	3	NW	Mallard	>20	high water level, ducks well distributed in vegetation and difficult to count
Winter 23/24	Kilcolman Bog SPA	22/12/2023	7/8	good	none	3	NW	Teal	>80	high water level, ducks well distributed in vegetation and difficult to count
Winter 23/24	Ballyhouras	22/12/2023	7/8	good	none	3	NW	Hen Harrier	1	Ballinvonear/Stream hill area. Recent reports of 2 at Kilcolman
Winter 23/24	Ballyhouras	22/12/2023	7/8	good	none	3	NW	Jay	2	
Winter 23/24	Ballyhouras	22/12/2023	7/8	good	none	3	NW	Hooded Crow		
Winter 23/24	Ballyhouras	22/12/2023	7/8	good	none	3	NW	Pheasant		
Winter 23/24	Glanmore Flats	22/12/2023	7/8	good	none	3	NW	Lapwing	4	no wildfowl
Winter 23/24	Lisballyhea	22/12/2023	7/8	good	none	3	NW	Wigeon	60	
Winter 23/24	Awbeg Bridge	22/12/2023	7/8	good	none	3	NW	Great White Egret	1	previously at Lisballyhea 19/12/2023
Winter 23/24	Awbeg Bridge	22/12/2023	7/8	good	none	3	NW	Kestrel	1	
Winter 23/24	Eagle Lough	22/12/2023	7/8	good	none	3	NW	Moorhen	2	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Eagle Lough	22/12/2023	7/8	good	none	3	NW	Mallard	4	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Cormorant	1	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Grey Heron	1	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Curlew	7	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Herring Gull	15	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Black-headed Gull	50	
Winter 23/24	Ballyhea Quarry	22/12/2023	7/8	good	none	3	NW	Lesser Black-backed Gull	90	
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Whooper Swan	5	
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Jackdaw		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Rook		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Redwing		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Fieldfare		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Blackbird		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Robin		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Magpie		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Chaffinch		
Winter 23/24	Blackwater Flats	22/12/2023	7/8	good	none	3	NW	Wren		
Winter 23/24	Mountbridget	22/12/2023	7/8	good	none	3	NW	#N/A		No wildfowl
Winter 23/24	Walshestown	08/01/2024	3/8	good	none	2	SE	#N/A		No wildfowl
Winter 23/24	Mountbridget	08/01/2024	3/8	good	none	2	SE	#N/A		No wildfowl
Winter 23/24	Jordanstown	08/01/2024	3/8	good	none	2	SE	Mute Swan	2	
Winter 23/24	Glanmore Flats	08/01/2024	3/8	good	none	2	SE	#N/A		No wildfowl
Winter 23/24	Awbeg Bridge	08/01/2024	3/8	good	none	2	SE	#N/A		No wildfowl
Winter 23/24	Buttevant Bridge	08/01/2024	3/8	good	none	2	SE	Teal	34	
Winter 23/24	Buttevant Bridge	08/01/2024	3/8	good	none	2	SE	Little Egret	1	
Winter 23/24	Buttevant Bridge	08/01/2024	3/8	good	none	2	SE	Grey Heron	1	
Winter 23/24	Buttevant Bridge	08/01/2024	3/8	good	none	2	SE	Redwing		
Winter 23/24	Buttevant Bridge	08/01/2024	3/8	good	none	2	SE	Fieldfare		
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Shoveler	110	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Wigeon	150	
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Coot	17	
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Little Grebe	1	
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Tufted Duck	2	
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Teal	180	
Winter 23/24	Kilcolman Bog SPA	08/01/2024	3/8	good	none	2	SE	Mallard	2	undercount
Winter 23/24	Lisballyhea	08/01/2024	3/8	good	none	2	SE	Greylag Goose	40	
Winter 23/24	Lisballyhea	08/01/2024	3/8	good	none	2	SE	Whooper Swan	33	
Winter 23/24	Lisballyhea	08/01/2024	3/8	good	none	2	SE	Mallard	6	undercount
Winter 23/24	Lisballyhea	08/01/2024	3/8	good	none	2	SE	Wigeon	15	undercount
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Mallard	56	
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Wigeon	6	
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Teal	36	
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Dunlin	14	
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Curlew	26	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Ballyhea Quarry	08/01/2024	3/8	good	none	2	SE	Lesser Black-backed Gull	1	
Winter 23/24	Caherconnor	08/01/2024	3/8	good	none	2	SE	Snipe	1	
Winter 23/24	Blackwater Flats	08/01/2024	3/8	good	none	2	SE	Little Egret	1	no swans
Winter 23/24	Castle Lake	08/01/2024	3/8	good	none	2	SE	Moorhen	2	
Winter 23/24	Castle Lake	08/01/2024	3/8	good	none	2	SE	Teal	2	
Winter 23/24	Castle Lake	08/01/2024	3/8	good	none	2	SE	Snipe	1	
Winter 23/24	Eagle Lough	08/01/2024	3/8	good	none	2	SE	Teal	20	
Winter 23/24	Eagle Lough	08/01/2024	3/8	good	none	2	SE	Mallard	4	
Winter 23/24	Eagle Lough	08/01/2024	3/8	good	none	2	SE	Wigeon	15	
Winter 23/24	Eagle Lough	08/01/2024	3/8	good	none	2	SE	Mute Swan	2	
Winter 23/24	Ballyhouras	08/01/2024	3/8	good	none	2	SE	Hooded Crow		
Winter 23/24	Ballyhouras	08/01/2024	3/8	good	none	2	SE	Pheasant		
Winter 23/24	Ballyhouras	08/01/2024	3/8	good	none	2	SE	Blackbird		
Winter 23/24	Ballyhouras	08/01/2024	3/8	good	none	2	SE	Redwing		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Ballyhouras	08/01/2024	3/8	good	none	2	SE	Fieldfare		
Winter 23/24	Kilcolman Fields	26/02/2024	6/8	good	none	2	SW	Greylag Goose	10	in fields, undercounts
Winter 23/24	Kilcolman Fields	26/02/2024	6/8	good	none	2	SW	Wigeon	20	in fields, undercounts
Winter 23/24	Kilcolman Fields	26/02/2024	6/8	good	none	2	SW	Mallard	10	in fields, undercounts
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Hen Harrier	1	female, hunting
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Coot	12	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Teal	70	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Wigeon	100	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Shoveler	120	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Gadwall	4	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Little Grebe	5	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Mallard	10	
Winter 23/24	Kilcolman Bog SPA	26/02/2024	6/8	good	none	2	SW	Tufted Duck	8	
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Little Grebe	1	
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Mallard	4	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Shoveler	12	
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Moorhen	2	
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Wigeon	14	
Winter 23/24	Eagle Lough	26/02/2024	6/8	good	none	2	SW	Teal	20	
Winter 23/24	Buttevant Bridge	26/02/2024	6/8	good	none	2	SW	#N/A		no wildfowl, disturbance by Co Council works
Winter 23/24	Jordanstown	26/02/2024	6/8	good	none	2	SW	Whooper Swan	23	
Winter 23/24	Mountbridget	26/02/2024	6/8	good	none	2	SW	#N/A		no wildfowl
Winter 23/24	Awbeg Bridge	26/02/2024	6/8	good	none	2	SW	Cormorant	5	
Winter 23/24	Awbeg Bridge	26/02/2024	6/8	good	none	2	SW	Mallard	1	
Winter 23/24	Awbeg Bridge	26/02/2024	6/8	good	none	2	SW	Whooper Swan	7	
Winter 23/24	Glanmore Flats	26/02/2024	6/8	good	none	2	SW	Mute Swan	2	
Winter 23/24	Ballyhea Quarry	26/02/2024	6/8	good	none	2	SW	Mallard	4	disturbance by quarrying activity
Winter 23/24	Ballyhea Quarry	26/02/2024	6/8	good	none	2	SW	Teal	1	disturbance by quarrying activity
Winter 23/24	Ballyhea Quarry	26/02/2024	6/8	good	none	2	SW	Great Crested Grebe	1	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Ballyhea Quarry	26/02/2024	6/8	good	none	2	SW	Cormorant	1	
Winter 23/24	Lisballyhea	26/02/2024	6/8	good	none	2	SW	Whooper Swan	17	
Winter 23/24	Blackwater Flats	26/02/2024	6/8	good	none	2	SW	#N/A		disturbance by pony-trekking
Winter 23/24	Castle Lake	26/02/2024	6/8	good	none	2	SW	Moorhen	1	
Winter 23/24	Ballyhouras	26/02/2024	6/8	good	none	2	SW	Mallard	2	
Winter 23/24	Ballyhouras	26/02/2024	6/8	good	none	2	SW	Redwing		
Winter 23/24	Ballyhouras	26/02/2024	6/8	good	none	2	SW	Fieldfare		
Winter 23/24	Ballyhouras	26/02/2024	6/8	good	none	2	SW	Blackbird		
Winter 23/24	Ballyhouras	26/02/2024	6/8	good	none	2	SW	Raven		
Winter 23/24	Eagle Lough	12/03/2024	8/8	good	none	3	SW	Mallard	5	Access restricted by flooding
Winter 23/24	Eagle Lough	12/03/2024	8/8	good	none	3	SW	Moorhen	2	
Winter 23/24	Eagle Lough	12/03/2024	8/8	good	none	3	SW	Teal	5	
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Shoveler	80	
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Wigeon	60	
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Coot	17	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Little Grebe	2	
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Gadwall	2	
Winter 23/24	Kilcolman Bog SPA	12/03/2024	8/8	good	none	3	SW	Greylag Goose	3	
Winter 23/24	Buttevant Bridge	12/03/2024	8/8	good	none	3	SW	Teal	14	
Winter 23/24	Glanmore Flats	12/03/2024	8/8	good	none	3	SW	Mute Swan	1	
Winter 23/24	Glanmore Flats	12/03/2024	8/8	good	none	3	SW	Little Egret	1	
Winter 23/24	Lisballyhea	12/03/2024	8/8	good	none	3	SW	Whooper Swan	14	
Winter 23/24	Ballyhea Quarry	12/03/2024	8/8	good	none	3	SW	Great Crested Grebe	2	quarrying activity in the ponds
Winter 23/24	Blackwater Flats	12/03/2024	8/8	good	none	3	SW	#N/A		no wildfowl
Winter 23/24	Caherconnor	12/03/2024	8/8	good	none	3	SW	#N/A		no wildfowl
Winter 23/24	Ballyhea SAC	12/03/2024	8/8	good	none	3	SW	Whooper Swan	68	
Winter 23/24	Ballyhouras	12/03/2024	8/8	good	none	3	SW	Hooded Crow		
Winter 23/24	Ballyhouras	12/03/2024	8/8	good	none	3	SW	Rook		
Winter 23/24	Ballyhouras	12/03/2024	8/8	good	none	3	SW	Robin		

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Ballyhouras	12/03/2024	8/8	good	none	3	SW	Blackbird		
Winter 23/24	Mountbridget	12/03/2024	8/8	good	none	3	SW	#N/A		no wildfowl
Winter 23/24	Jordanstown	12/03/2024	8/8	good	none	3	SW	Whooper Swan	16	
Winter 23/24	Walshestown	12/03/2024	8/8	good	none	3	SW	Little Egret	1	
Winter 23/24	Castle Lake	12/03/2024	8/8	good	none	3	SW	#N/A		no access, livestock
Winter 23/24	Jordanstown	23/03/2024	6/8	good	showers	3	SW	#N/A		no wildfowl
Winter 23/24	Walshestown	23/03/2024	6/8	good	showers	3	SW	#N/A		no wildfowl
Winter 23/24	Lisballyhea	23/03/2024	6/8	good	showers	3	SW	Whooper Swan	20	
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Coot	4	undercount, birds concealed in vegetation
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Shoveler	70	undercount, birds concealed in vegetation
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Teal	30	undercount, birds concealed in vegetation
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Wigeon	12	undercount, birds concealed in vegetation
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Moorhen	4	undercount, birds concealed in vegetation

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 23/24	Kilcolman Bog SPA	23/03/2024	6/8	good	showers	3	SW	Greylag Goose	4	undercount, birds concealed in vegetation
Winter 23/24	Blackwater Flats	23/03/2024	6/8	good	showers	3	SW	Whooper Swan	48	
Winter 23/24	Caherconnor	23/03/2024	6/8	good	showers	3	SW	#N/A		no wildfowl
Winter 23/24	Castle Lake	23/03/2024	6/8	good	showers	3	SW	#N/A		no access, livestock
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Mute Swan	1	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Teal	15	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Wigeon	10	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Mallard	6	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Shoveler	8	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Moorhen	1	
Winter 23/24	Eagle Lough	23/03/2024	6/8	good	showers	3	SW	Buzzard	1	
Winter 23/24	Ballyhouras	29/03/2024	3/8	good	showers	2	SW	Hen Harrier	1	Male
Winter 24/25	Kilcolman Bog SPA	22/10/2024		good	none	2	SW	Teal	9	Very low water levels
Winter 24/25	Ballyhea Quarry	22/10/2024		good	none	2	SW	Mallard	9	

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 24/25	Ballyhea Quarry	22/10/2024		good	none	2	SW	Grey Heron	2	
Winter 24/25	Ballyhea Quarry	22/10/2024		good	none	2	SW	Curlew	34	
Winter 24/25	Annagh Fields East	22/10/2024		good	none	2	SW	Whooper Swan	20	
Winter 24/25	Caherconnor	22/10/2024		good	none	2	SW	Buzzard	1	
Winter 24/25	Caherconnor	22/10/2024		good	none	2	SW	Kestrel	1	
Winter 24/25	Buttevant Bridge	22/10/2024		good	none	2	SW	Kingfisher	1	
Winter 24/25	Buttevant Bridge	22/10/2024		good	none	2	SW	Moorhen	1	
Winter 24/25	Annagh Fields East	21/10/2024	3/8	good	none	2		Whooper Swan	27	incl 10 imm.
Winter 24/25	Kilcolman Bog SPA	21/10/2024	3/8	good	none	2		Teal	20	Low water level
Winter 24/25	Kilcolman Bog SPA	21/10/2024	3/8	good	none	2		Wigeon	15	Low water level
Winter 24/25	Annagh Fields West	25/10/2024	6/8	good	heavy showers	3	NE	Whooper Swan	37	incl 10 imm.
Winter 24/25	Kilcolman Bog SPA	25/10/2024	6/8	good	heavy showers	3	NE	Teal	15	low water level
Winter 24/25	Buttevant Bridge	25/10/2024	6/8	good	heavy showers	3	NE	Mallard	2	
Winter 24/25	Buttevant Bridge	25/10/2024	6/8	good	heavy showers	3	NE	Little Egret	1	
Winter 24/25	Annagh Fields West	06/11/2024	2/8	good	none	3	W	Greylag Goose	30	no swans

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 24/25	Annagh Fields East	06/11/2024	2/8	good	none	3	W	Whooper Swan	59	
Winter 24/25	Kilcolman Bog SPA	06/11/2024	2/8	good	none	3	W	Teal	19	low water level
Winter 24/25	Kilcolman Bog SPA	06/11/2024	2/8	good	none	3	W	Wigeon	2	low water level
Winter 24/25	Kilcolman Bog SPA	06/11/2024	2/8	good	none	3	W	Green Sandpiper	1	low water level
Winter 24/25	Buttevant Bridge	06/11/2024	2/8	good	none	3	W	Mute Swan	6	
Winter 24/25	Buttevant Bridge	06/11/2024	2/8	good	none	3	W	Mallard	2	
Winter 24/25	Buttevant Bridge	06/11/2024	2/8	good	none	3	W	Grey Wagtail	1	
Winter 24/25	Annagh Bogs	06/11/2024	2/8	good	none	3	W	Shoveler	19	
Winter 24/25	Annagh Bogs	06/11/2024	2/8	good	none	3	W	Teal	c 40	
Winter 24/25	Annagh Bogs	06/11/2024	2/8	good	none	3	W	Wigeon	c 50	
Winter 24/25	Annagh Bogs	06/11/2024	2/8	good	none	3	W	Greylag Goose	10	
Winter 24/25	Annagh Fields East	06/11/2024	2/8	good	none	3	W	Whooper Swan	51	min count
Winter 24/25	Annagh Fields East	06/11/2024	2/8	good	none	3	W	Greylag Goose	6	
Winter 24/25	Annagh Fields East	21/11/2024	8/8	poor	snow	3	NW	Whooper Swan	84	grazing herd
Winter 24/25	Kilcolman Bog SPA	21/11/2024	8/8	poor	snow	3	NW	Teal	2	low water level

Season	Site Name	Date	Cloud	Visibility	Precipitation	Wind Speed	Wind Direction	Species	Quantity	Notes
Winter 24/25	Kilcolman Bog SPA	21/11/2024	8/8	poor	snow	3	NW	Moorhen	1	low water level
Winter 24/25	Annagh Fields East	21/11/2024	8/8	poor	snow	3	NW	Whooper Swan	c.81	
Winter 24/25	Annagh Fields East	21/11/2024	8/8	poor	snow	3	NW	Greylag Goose	c.47	
Winter 24/25	Annagh Fields East	21/11/2024	8/8	poor	snow	3	NW	Little Egret	1	
Winter 24/25	Annagh Fields West	21/11/2024	8/8	poor	snow	3	NW	Greylag Goose	c.56	
Winter 24/25	Buttevant Bridge	27/11/2024	2/8	moderate	none	1		Lesser Black-backed Gull	4	
Winter 24/25	Buttevant Bridge	27/11/2024	2/8	moderate	none	1		Grey Heron	1	
Winter 24/25	Lisballyhea	27/11/2024	2/8	moderate	none	1		Lesser Black-backed Gull	>20	area flooded
Winter 24/25	Lisballyhea	27/11/2024	2/8	moderate	none	1		Black-headed Gull	>40	area flooded
Winter 24/25	Annagh Bogs	27/11/2024	2/8	moderate	none	1		Wigeon	30	
Winter 24/25	Annagh Bogs	27/11/2024	2/8	moderate	none	1		Shoveler	70	
Winter 24/25	Annagh Bogs	27/11/2024	2/8	moderate	none	1		Mallard	60	
Winter 24/25	Annagh Bogs	27/11/2024	2/8	moderate	none	1		Teal	c.300	