

Niamh Hickey

From: Rita Mansfield <rita.mansfield@ftco.ie>
Sent: Thursday 21 March 2024 13:42
To: SIDS
Subject: RE: ABP Case Ref. PA93.318446 Coumnagappul Wind Farm
Attachments: P24105-FT-EN-XX-RP-PL-0001 Submission Response Report.pdf; P24105-FT-EN-XX-LT-PL-0001 Cover Letter.pdf

Categories: Niamh

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Dear Niamh,

Please find attached, on behalf of the Applicant **Coumnagappul Wind Farm Limited**, a response including cover letter to the submissions received on the ABP Case Ref. PA93.318446 Coumnagappul Wind Farm.

We respectfully request An Bord Pleanála to review our response to the submissions lodged against the proposed development when reaching their decision on the application in the interest of proper planning and sustainable development of the area.

Kind Regards,

Rita Mansfield



Rita Mansfield
Associate Director

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Sent: Thursday, March 7, 2024 10:50 AM
To: Rita Mansfield <rita.mansfield@ftco.ie>
Subject: RE: ABP Case Ref. PA93.318446 Coumnagappul Wind Farm

Dear Rita,

I wish to acknowledge receipt of your email.

I can confirm that the below extension is acceptable.

The response should be received by 5:30pm on 22nd March 2024.

Please accept this email as formal confirmation of the extension.

Kind regards,

Niamh

From: Rita Mansfield <rita.mansfield@ftco.ie>

Sent: Thursday, March 7, 2024 10:05 AM

To: SIDS <sids@pleanala.ie>

Subject: RE: ABP Case Ref. PA93.318446 Coumnagappul Wind Farm

Caution: This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

Dear Niamh,

We respectfully request an extension of time to allow us to fully consider and respond to the submissions received on the ABP Case Ref. PA93.318446 Coumnagappul Wind Farm. Additionally, we would like the opportunity to fully align our main response document with our intended response to the Waterford City and County Council submission (which has a deadline of 19th March for response). To that end we would ask that an extension to 22nd March is accommodated by An Bord Pleanála.

Kind Regards,

Rita Mansfield

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CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

The Secretary
An Bord Pleanála
64, Marlborough Street
Dublin 1

By email: sids@pleanala.ie

Our Ref: P24105-FT-EN-XX-LT-PL-0001

21st May 2024

Re: **ABP Case Ref. PA93.318446 Coumnagappul Wind Farm**

Strategic Infrastructure Development (SID) Planning Application for the development of a Wind Farm consisting of 10 no. turbines (and all associated works) in the townlands of Bleantasourmountain, Carrigbrack, Clooncogaile, Coumnagappul, Glennaneanemountain, Kilkeany, Kilkeany Mountain, Knocavanniamountain and Reanadampaun Commons, Ballymacmague North, Ballymacmague South, Colligan More, Colliganwood, Eaglehill, Garryclone, Garryduff, Kilcooney, Killadangan, Knockacaharna, Knockboy, Lackandarra Upper and Tinalira Co. Waterford., Co. Waterford.

Dear Sir / Madam,

Fehily Timoney and Company, Core House, Pouladuff Road, Cork has been retained by the Applicant **Coumnagappul Wind Farm Limited**, Building 3400, Avenue 3000, Cork Airport Business Park, Cork to provide to An Bord Pleanála a response to Third-party submissions received in relation to the above SID application.

The following material is enclosed: **Submission Response Document**

We respectfully request An Bord Pleanála to review our response to the submissions lodged against the proposed development when reaching their decision on the application in the interest of proper planning and sustainable development of the area. We look forward to the Board's decision in due course. If you require any clarification or additional information, please do not hesitate to contact the undersigned.

Yours sincerely,

Rita Mansfield

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

Encl.

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VAT Registration Number: IE6580497D





CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

COUMNAGAPPUL RESPONSE TO THIRD-PARTY SUBMISSIONS

ABP Reference ABP-318446-23

Prepared for: Coumnagappul Wind Farm Limited

Date: March 2024

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Coumnagappul Response to Third-Party Submissions

ABP Reference ABP-318446-23

REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT
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Abstract: A document prepared to address and respond to third-party submissions lodged to An Board Pleanála in relation to the proposed Coumnagappul Wind Farm development in Co. Waterford.

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1. EXECUTIVE SUMMARY

This submission sets out the following:

Section 4 of this submission outlines that An Bord Pleanála are obliged to make a decision on this appeal pursuant to Section 37(G)(2) of the Planning and Development Act 2000 (as amended). Section 37(G)(2) is a permissive provision that allows the Board to grant planning permission notwithstanding that a proposed development contravenes a County Development Plan and simply requires the Board to have regard to the relevant County Development Plan. *It is important to note that this is the legal framework through which development plan policies are to be considered by the Board and the weight to be attached to same.* The Board must have regard to both local policy but also the policy of the Government, the Minister or any other Minister of the Government in so doing. In weighing up local policy with national policy, it is clearly demonstrated that the local policy is not consistent with national policy and that the Wind Energy Maps contained in the Waterford County Development Plan 2022 have not been rationally developed in the context of the preceding mapping contained in the Waterford County Development Plan 2011-2017.

Section 4 also demonstrates that there is significant policy support for the accelerated development and delivery of onshore wind at both a national and EU level. In particular, Ireland has very ambitious and legally binding targets, including a specific target to more than double the installed capacity of onshore wind in Ireland in the next 6 years. These targets are set out in the Climate Action Plan 2023 and Climate Action Plan 2024. It is submitted that An Bord Pleanála must give significant weight to the necessity to rapidly expand and promote renewable energy development in order to achieve the national climate objective. In fact, The Climate Action and Low Carbon Development Acts 2015 to 2021 requires the Board as a relevant body, to, inter alia “in so far as practicable, perform its functions in a manner consistent with” inter alia “the furtherance of the national climate objective” and “the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State”. Section 4.2.2 of this submission clearly sets out the Competent Authorities obligations with regard to the Climate Act and Low Carbon Development Act 2021 and why there should be a presumption in favour of development of wind energy on this site and why such national presumption should outweigh any such local policy.

It is clearly recognised in the Climate Action Plan 2024 that meeting our national targets represents a significant challenge. In permitting Coumnagappul Wind Farm the Board will be assisting the state in meeting its legally binding targets in an area where such development would not have a significant negative effect on the environment as demonstrated in Section 5 and Section 6 of this submission.

Section 5 of this submission submits that the wind farm is located in a robust landscape setting. It has been demonstrated through the assessments submitted as part of the EIAR, and this response that the receiving environment is robust and can suitably absorb the development into the receiving environment. We respectfully require An Bord Pleanála to take an evidenced based approach to the impact of the project on the landscape rather than simply relying on a broad policy landscape designations under the development plan, which covers a vast expanse of area in Co. Waterford. It is submitted that this granular and evidence based approach is correct and in accordance with proper planning and sustainable development.

Section 6 of this response rebuts all of the issues raised by both statutory, prescribed and submissions by the public. Section 6 clearly sets out that the Proposed Development has been designed and assessed in accordance with best practice guidelines and European Directives including:

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports’ (EPA, 2022);
- Wind Energy Development Guidelines for Planning Authorities’ (DoEHLG, 2006);



- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland (2016), 3044 Lake Drive, Citywest Business Campus Co. Dublin. IFI/2016/1-4298.
- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C(2021) 6913 final;
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin (2009, updated 2010)
- IGI (2013), Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements;
- Scottish Executive (2017) Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments, 2nd Edition;
- Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (Version 1.1)' (CIEEM, 2018 and revisions);
- Scottish Natural Heritage (2017) Recommended bird survey methods to inform impact assessment of onshore wind farms.

Where slight deviations to these guidelines have been made the rational for same are defended and rationalised.



2. INTRODUCTION

Fehily Timoney and Company (FT) , Core House, Pouladuff Road, Cork, have been retained by Coumnagappul Wind Farm Limited, Building 3400, Avenue 3000, Cork Airport Business Park Cork to respond to submissions received in respect of this application. These submissions have been lodged in relation to the proposed Coumnagappul Wind Farm (the Proposed Development).

The particulars of the planning application are as follows:

Proposed construction of Coumnagappul Wind Farm consisting of 10 no. turbines and associated infrastructure

- The Wind Farm Site is within the townlands of Bleantasourmountain, Carrigbrack, Coumnagappul, Glennaneanemountain, Kilkeany, Kilkeany Mountain, Knocavanniamountain and Reanadampaun Commons, County Waterford.
- The Grid Connection Route is within the townlands of Ballymacmague North, Ballymacmague South, Colligan More, Colliganwood, Eaglehill, Garryclone, Garryduff, Kilcooney, Killadangan, Knockacaharna, Knockboy, Lackandarra Upper, Reanadampaun Commons and Tinalira, County Waterford.
- Accommodation works on the Turbine Delivery Route are within the townlands of Reanadampaun Commons and Clooncogaile, County Waterford.

Applicant: Coumnagappul Wind Farm Limited.

This report responds to the recurring topics and issues raised in third-party observations, provides a brief context, and outlines their resolution.



3. RESPONSE CONTEXT

Coumnagappul Wind Farm Limited seeks to respond to the submissions which were submitted to An Bord Pleanála (ABP) regarding the Proposed Development: Coumnagappul Wind Farm. We respectfully request ABP to review the documentation contained within the application in tandem with our considered response to all third-party submission and grant planning permission for the Proposed Development in the interest of the proper planning and sustainable development of the area and compliance with national and local climate, planning and energy policies.

We have reviewed the submissions received and identified the key points being raised which are responded to in this report. Submissions were received from multiple Third Parties as well as from Statutory Bodies. We have responded to the Statutory Body comments raised specifically, and for Third Parties we have compiled a list of the main issues raised, summarised the topics of these and in turn responded to each.

Note that only where an observation / submission has flagged concerns or issues with the proposed development will it be responded to in this Report.

In this regard, we would highlight the following:

- The Irish Aviation Authority (IAA) in their observation provided a number of requirements for screening prior to construction to assess requirements to ensure no impact on operations at Cork or Waterford Airports and provided a recommendation for a condition in the event of a grant of permission. The Applicant can confirm that, should planning consent be granted, they can commit to the conditions as recommended by the IAA.
- The Office of Public Works (OPW) in their observation note that the requirements for any new culverts or bridges as part of the proposed development. The Applicant can confirm that, where the Proposed Development is permitted, an application for consent from the Commissioners of Public Works under Section 50 of the Arterial Drainage Act, 1945 will be submitted to the Office of Public Works.
- Uisce Éireann in their observation notes that there are watermains and pipes along the proposed 22.47km underground cabling route which will be impacted by the proposed development. The submission states that a Confirmation of Feasibility must be issued by in the first instance by Uisce Éireann before planning permission is granted. Coumnagappul Wind Farm Limited have no objection in this regard and are currently preparing to engage with Uisce Éireann in order to progress same.
- The Department of Transport submission simply noted requirements in the event that the proposed development is granted permission and that appropriate standards to be accorded with.
- The submission received from Transport Infrastructure Ireland (TII) erroneously refers to a SHD Residential application in Cork, rather than this Strategic Infrastructure Development application for a proposed wind farm. Accordingly, we are unable to respond to this submission. It was confirmed by An Bord Pleanála on 20/02/2024 via email to Fehily Timoney that the submission issued to this office was indeed that received from TII.

As such, this Report provides response to the following Statutory Body submissions:

- An Taisce,
- Development Applications Unit
- Fáilte Ireland
- Waterford City and County Council.



As noted, for Third Parties we have compiled a list of the main issues raised, summarised the topics of these and in turn responded to each issue.

Third Party Core Issues

- Issue 1: Policy
- Issue 2: Human Health and Wellbeing: Noise, Shadow flicker and Property Values
- Issue 3: Ecology
- Issue 4 : Visual Impact
- Issue 5: Archaeology
- Issue 5: Traffic and Transport
- Issue 6: Air and Climate
- Issue 7: Protection of Water Quality
- Issue 8: Adequacy of Community Consultation

However before making a submission on the prescribed and statutory bodies submissions it is important to address the local wind energy policy as this would appear to be a substantive issue raised by third parties and An Bord Pleanála itself in other precedent planning decisions. Therefore Section 4 below identifies the legal basis that An Bord Pleanála must follow in making a decision on this planning application. Section 4 also outlines why significant weight should be given to national energy and climate policy over local policy. Section 4 concludes that the Waterford County Council Wind Energy Strategy is irrational and not consistent with regional and national policy and therefore this should be recognised in the decision making process.

Section 5 is related to Section 4 and addresses the issue of Landscape and Visual Impact. This section clearly supports the arguments in Section 4 in that the Wind Energy Strategy is not consistent but also addresses why from a landscape perspective the site is considered robust and suitable to accommodate wind turbine. In particular this section rebuts the submission of Failte Ireland and Waterford City and County Council.



4. RESPONSE – PLANNING POLICY

Introduction

Before providing a detailed response to each submission made, it is important to address the local planning policy associated with this Proposed Development in the context of both European and National Energy and Climate policy and legislation. This is particularly important given that a number of submissions suggest this Proposed Development should be simply refused on local policy grounds.

This section of the submission outlines the process and matters that An Bord Pleanála must consider in making a decision on this planning application. This section is of particular importance as it provides legislative direction to An Bord Pleanála on how it should come to a decision on this application for consent. In this regard, it is noted that An Bord Pleanála has been refusing planning permission for a number of developments solely on the ground that the development materially contravenes a local County Development Plan. We assert this approach is incorrect as significant other matters should be considered to have equal or more weighting than local spatial policies when it relates to renewable energy development.

This section will put forward the argument that in weighing up local policy considerations against national policy consideration, there is overriding public importance to consider national policy considerations in this instance, in the context of the climate crisis that the nation is facing.

Legal Basis

Pursuant to the Planning and Development Act 2000 as amended, for Strategic Infrastructure Development projects, An Bord Pleanála (the “Board”) shall *consider* the provisions of the local County Development Plan but is not required to make decisions that *are consistent with* it and may decide to grant a permission for development, even if the proposed development, or part thereof, contravenes materially the County Development Plan.

Therefore, as a matter of jurisdiction, the Board has discretion under the Planning and Development Act to grant permission for the Proposed Development.

As the majority of the Proposed Development is located within an “Exclusion Zone” for wind energy, the Proposed Development is contrary to the Waterford City and County Development Plan 2022-2028.

Therefore, the Proposed Development could be interpreted as a material contravention of this Plan. This section of the report will examine the Proposed Development within the context of material contravention, which is set out under Section 37G of the Planning and Development Act (as amended).

4.1.1 Planning & Development Act

Under section 37G (6) of the Planning and Development Act, 2000 (as amended), An Bord Pleanála has the power to grant planning permission in material contravention of a local county development plan and should grant planning permission in accordance with the matters that the Board is required to have regard to. In this respect section 37G(6) states:

“The Board may decide to grant a permission for development, or any part of a development, under this section even if the proposed development, or part thereof, contravenes materially the development plan relating to any area in which it is proposed to situate the development”.

Section 37G (2) of the Planning and Development Act, 2000 (as amended) states:



- (2) Without prejudice to the generality of subsection (1), the Board shall consider—
- (a) the environmental impact assessment report submitted under section 37E(1), any submissions or observations made, in response to the invitation referred to in section 37E(3), within the period referred to in that provision, the report (and the recommendations and record, if any, attached to it) submitted by a planning authority in accordance with section 37E(4), any information furnished in accordance with section 37F(1) and any other relevant information before it relating to—
 - (i) the likely consequences of the proposed development for proper planning and sustainable development in the area in which it is proposed to situate the development, and
 - (ii) the likely effects on the environment of the proposed development,
 - ...
 - (c) the provisions of the development plan or plans for the area,
 - (g) the matters referred to in section 143, [that being –
 - (a) the policies and objectives for the time being of the Government, a State authority, the Minister, planning authorities and any other body which is a public authority whose functions have, or may have, a bearing on the proper planning and sustainable development of cities, towns or other areas, whether urban or rural,
 - (b) the national interest and any effect the performance of the Board's functions may have on issues of strategic economic or social importance to the State, and
 - (c) the National Planning Framework and any regional spatial and economic strategy for the time being in force.]
 - (h) any relevant provisions of this Act and of any regulations made under this Act.

As identified by Mr Justice Haughton in *Element Power v An Bord Pleanála* 2017 IEHC 550¹:

*"Of course, even if there was a clear national strategy in relation to "spatial dimension", and while this would doubtless assist the Board, the Board under present legislation would not be obliged to follow such guidelines or plans, and in the exercise of its own judgement and expertise would be entitled to take a different view. **Equally if a local development plan adopted wind energy strategies with a more detailed "spatial dimension", for example by zoning particular areas as suitable for wind farm development, it would be open to the Board to grant permission for a proposed development, even if it was a material contravention of such zoning.** Section 37G(6) expressly empowers the Board to grant permission even if the development would materially contravene a development plan. Thus, while the Board must have regard to national and local strategy, it is not bound by it."* [emphasis added].

This is the precise position that obtains in this case. The Proposed Development has unequivocal national and EU policy support but is not supported by the County Development Plan. All the Board is obliged to do is have regard to the Plan.

There are five *additional* reasons why the approach in *Element Power v An Bord Pleanála* is the correct one and should be followed:

¹ See *Element Power v An Bord Pleanála* 2017 IEHC 550



Firstly, and while it is accepted that the subject matter is different, Section 15(1) Climate Act obligation of consistency imposes a significantly higher threshold than that contained in section 37(6)(g) of the 2000 Act. Insofar as the Board identifies any conflict between the County Development Plan and the requirements of section 15(1) then the objectives contained in the latter must be given priority over the former.

Secondly, section 37(G)(2)(g) itself requires that regard is had to the matters referred to in section 143 of the Planning and Development Act 2000. This includes an obligation to have regard to:

*“(a) the policies and objectives for the time being of the Government, a State authority, the Minister, planning authorities and any other body which is a public authority whose functions have, or may have, a bearing on the proper planning and sustainable development of cities, towns or other areas, whether urban or rural,
(b) the national interest and any effect the performance of the Board’s functions may have on issues of strategic, economic or social importance to the State”*

The climate crisis is clearly a matter to which the Board has to have regard for the purposes of (b) and the policies and objectives for the purposes of (a) must include the Climate Action Plan, Carbon Budgets and Sectoral Emissions Ceilings. Therefore, even if the Climate Act 2021 did not impose an obligation to act consistently, the Planning and Development Act 2000 identifies these policies and objectives as having *precisely* the same statutory weight as the County Development Plan.

Thirdly, and relatedly, the County Development Plan does not, either itself or in context, constitute a “plan led system”. Similar sentiments were expressed by the Board in relation to refusals of permission in respect of, *inter alia*, Croaghnaun Wind Farm (ABP 309937-21) and Cahermurphy Wind Farm (ABP 311044-21). Both refusals were subsequently quashed on judicial review, the Board was incorrect in any event to *either* identify the relevant County Development Plans as representing a “plan led system” or reasoning from a breach of those Plans to a conclusion that those proposed wind farms “*would be contrary to the proper planning and sustainable development of the area.*”

As the Board is aware, there is a significant spatial policy formation pending under the Climate Action Plan 2023. In particular, a Renewable Electricity and Spatial Planning Framework is imminent which will set regional MW targets, and Regional Renewable Electricity Plans are to be drafted and implemented in 2024. The Climate Action Plan is the roadmap to achieve Ireland’s sectoral emissions ceilings and therefore these plans and strategies are an absolute requirement to deliver same.

Furthermore, neither the National Planning Framework nor the current suite of Regional Spatial and Economic Strategies Plans have been adopted or amended in the context of the Climate Action Plan 2023 and the legally binding obligation to act in a manner consistent with this plan under the Climate Action and Low Carbon Amendment Act 2021.

It is a requirement under the Climate Act 2023 to align policies with the carbon budget framework and this has not occurred in relation to these plans. In this respect. In simple terms, while we have legally binding targets for decarbonisation, supported by specific targets for renewable energy including onshore wind, there is currently no mechanism in place to ensure that the aggregated spatial plans developed at the local level, support these overarching national objectives.

The County Development Plan, which was adopted on 7th June 2022 and came into effect on 19th July 2022, is already out of date in respect to the overarching national climate action policy.



Carbon Budgets for the purposes of the Climate Action and Low Carbon Development Act 2015 (as amended) were adopted on 4th May 2022 but were not considered for the purposes of the County Development Plan. Sectoral Emissions Ceilings for the purposes of the same Act were adopted on 28th July 2022 and clearly post-date the adoption of the Plan.

The Climate Action Plan 2023 was adopted on 21st December 2022. Section 12.3.1 of the Plan includes measures to accelerate renewable energy delivery and identifies “*renewable energy generation projects and associated infrastructure are considered to be in the overriding public interest*”. Under the Climate Action Plan 2023, the Onshore Wind target is 9GW, up from 8GW under Climate Action Plan 2021. The 2025 target is 6GW.

The County Development Plan is therefore an outlier both in terms of the policy position it adopts but is *also* incompatible with effectively *each and every* objective identified in section 15 of the Climate Acts 2015-2021. It is therefore impossible to characterise a breach of the County Development Plan insofar as the Proposed Development is concerned as a breach of a plan led system where that Plan was adopted without reference to national climate policy.

Fourthly, and relatedly, the County Development Plan has the status of a statutory instrument, per the analysis of Mr Justice Humphreys in *Clonres v An Bord Pleanála* 2021 IEHC 303². Insofar as it may be erroneously argued that the County Development Plan has any or any dispositive effect, the Board is obliged to ensure that EU law is fully effective and must (of its own motion if necessary and without requesting or requiring the prior setting aside of such provisions) to disapply any provision of national legislation that may be contrary to EU law (Case 378/17 - *Minister for Justice v Workplace Relations Commission*³) as identified and relied upon by the Board itself in *Save Cork City v An Bord Pleanála* 2020/563 JR⁴. The Wind Energy Map that forms part of the County Development Plan, that effectively sterilises Waterford for the purposes of Wind Energy, is not compatible with Article 3 of Regulation 2022/2557 or the RED III Directive. In particular the presumption that such developments are in the over-riding public interest and must be accorded priority is completely incompatible with the purported sterilisation of the County. However, it is not necessary for the Board to take this step as *per Element Power v An Bord Pleanála*, the County Development Plan is simply one of the factors to which regard must be had with many other factors to consider and have regard to also.

Therefore it is submitted that whilst An Bord Pleanála is only required to ‘have regard’ to local policy, it is submitted in this instance by reason of the nature of the Proposed Development i.e. renewable energy, significant weight must be given to the provisions outline in Section 37(G)(2)(g) of the Planning and Development Act 2000 (as amended), which includes the provisions of the Climate Act 2021 and the Climate Action Plan 2023.

The next section of this report outlines the Competent Authorities obligations under the Climate Act 2021 (as amended).

² See *Clonres v An Bord Pleanála* 2021 IEHC 303

³ See Case 378/17 - *Minister for Justice v Workplace Relations Commission*

⁴ See *Save Cork City v An Bord Pleanála* 2020/563 JR



4.1.2 Obligations under the Climate Act 2001 (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. While the Superior Courts have not, to date, addressed the precise parameters of the obligation to act consistently in the context of the Climate Acts 2015-2021⁵, it is absolutely clear that the Board can only legally make decisions, insofar as is practicable, that are consistent with the Climate Action Plan and the obligation to further the national climate objective. The standard of ‘have regard’ and a requirement of ‘consistency’ are very different standards as set out by Humphreys J in *Cork County Council v Minister for Housing* [2021] IEHC 683⁶, in particular at para. 86 of the judgment:

“In the case of the dispute between the council and central government here, that line has been blurred by the OPR and Minister, albeit for perhaps understandable policy reasons. Nonetheless, the court cannot allow “have regard to” obligations to be elevated by stealth or in effect, directly or indirectly, into what would amount in practice to mandatory obligations, because to do so would undermine a distinction central to the orderly functioning of the planning code”.

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 412 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 Board a mandatory obligation to act consistently as far as is practicably possible. In the context of a planning application before the Board, there are not practicable difficulties or impediments in acting in a manner consistent with such matters in determining a planning application.

⁵ See i.e. *Coyne v An Bord Pleanála* 2023 IEHC 412

⁶ See *Cork County Council v Minister for Housing* [2021] IEHC 683



Where the Board is weighing up competing policy objectives and or considering this planning application in the context of Section 37(G)(2) 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.

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 Coumnagappul Wind Farm if permitted will be in a position to make a significant contribution to the meeting of those targets prior to 2030.

Compliance with European and National Energy and Climate Policies

There is significant European and national climate and energy policy and legislation which binds the State to deliver on renewable energy targets. It is also submitted that the policy framework and in particular the obligation to act consistently with the Board's obligations for the purposes of the Climate Acts 2015-2021 raises a near-presumption in favour of a grant of permission, that should only be displaced by the most pressing counter-considerations under the rubric of either EIA or Appropriate Assessment.

4.1.3 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(2) of the Planning & Development Act 2000 (as amended).

Council Regulation 2022/2577⁷ represents an obligation on EU Member States to accelerate renewable energy projects such as the Proposed Development 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 Board's decision. It makes clear that the Board must take as its starting assumption that Coumnagappul Wind Farm is of overriding public interest and contributes to public health and safety. Although the Board, retains a discretion, the threshold for refusal of a grant of planning permission is therefore extremely high.

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

The Fit for 55 package⁸ 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 2023⁹, and came into force in November 2023.

⁷ <https://eur-lex.europa.eu/eli/reg/2022/2577/oj>

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0557>

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



RED II¹⁰ 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 %”¹¹

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.
- 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 a period of 18 months to implement it. While time for implementation has not expired, this document provides further clear policy support at European level and it is appropriate the **Board should 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.

¹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001>

¹¹ Article 3, paragraph 1.



- 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, and significantly the Directive identifies the imperative necessity for the designation of suitable sites by Member States for the development of renewable energy. While the Directive does not displace the County Development Plan, that imperative strongly supports the submission that the Board can and should grant permission if it is satisfied that the proposed Wind Farm accords with proper planning and sustainable development, notwithstanding the County Development Plan. Quite clearly the Directive has adopted the policy position that local or regional objections to renewable energy development are incompatible with the achievement of climate neutrality by 2050 as local policies are not delivering on the EU objectives with regard to renewable energy.

4.1.4 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"*.¹²

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:

¹² Climate Change Advisory Council Annual Report 2018 at pp.ii-iv.



"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 **Board's consideration of this application**, as set out in **Section 4.2.2 above**, it imposed on the Board, insofar as practicable, to act in a manner consistent with the current Climate Action Plan and other matters set out in section 17 of the 2021 Act. This was a significant shift from the "have regard" standard contained in the original section 15 of the 2015 Act.

Climate Action Plan 2023

It is within the context of the European Policy and National Policy and legislation that the Climate Action Plan 2023 is set. The Climate Action Plan 2023 (CAP23) is the first Plan to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and follows the introduction, of the carbon budgets and legally binding sectoral emissions ceilings.

The CAP 2023 includes the following key provisions in relation to renewable electricity and in particular in relation to onshore wind development.

- Renewable electricity targets
 - Renewable electricity targets of 50% by 2025 and 80% by 2030
 - Onshore wind installed capacity of 6GW by 2025 and 9GW by 2030.
- Measures to scale and accelerate renewable electricity
 - Action EL/23/1: Establish a task force to accelerate renewables
 - Action EL/23/2: Publish the Renewable Electricity Spatial Policy Framework
 - Action EL/23/3: Publish a roadmap for the development and implementation of Regional Renewable Electricity Strategies.



Similar to EU policy, national policy is clearly calling for the rapid acceleration in deployment of renewable electricity projects. To put these legally binding targets into context. It has taken Ireland over 20 years to deliver 4.59GW of onshore wind (August 2023)¹³. Government is now asking the sector, supported by all relevant national stakeholders (relevant bodies), to nearly double that capacity of onshore wind in the next 7 years. This is a proportionate response to the twin climate and energy security / energy cost crises. The emphasis on urgency and the necessity to scale up ambition for renewable energy development in the Climate Action Plan is consistent with International and European policy contained in Regulation 2022/2577 and Directive RED III.

Climate Action Plan 2024

The Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan. The Plan was approved by Government on 20 December 2023 but is subject to SEA and AA.

The Climate Action Plan 2024 builds upon CAP 2023 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.

The Key Message from CAP 2024 with regard to electricity is stated as follows:

"The electricity sector continues to face an immense challenge in meeting its requirements under the sectoral emissions ceiling, as the decarbonisation of other sectors, including transport, heating, and industry, relies to a significant degree on electrification. The deployment rates of renewable energy and grid infrastructure required to meet the carbon budget programme for electricity is unprecedented and requires urgent action across all actors to align with the national targets".

Section 1.2.1.3 of the CAP 2024 sets out the scale of the challenge for the electricity sector:

"At a time when the energy system is under severe pressure to ensure security of supply, amid projections of rapid electricity demand growth over the coming decade, the electricity sector has been set one of the smallest carbon budget allocations and the steepest trajectory (-75%) across all sectors. The scale of the challenge to meet the sectoral emissions ceiling is immense and requires policies to be moved from an 'end of decade' target trajectory towards a 'remaining carbon budget' target".

Section 12.3 outlines the projections for the energy sector. The CAP 2024 clearly outlines the need to accelerate the deployment of renewable energy:

"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.

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".

Key measures to meet this demand include the following;

¹³ <https://www.seai.ie/publications/Energy-in-Ireland-2023.pdf>



- *Provide for greater alignment between local plans and renewable energy targets at national (and regional) levels, taking into account regional targets once established and the revised National Planning Framework*
- *Publish the Draft Renewable Electricity Spatial Policy Framework White Paper;*
- *Publish the revised methodology for Local Authorities*
- *Following finalisation of a Regional Roadmap, Regional Assemblies will publish and implement Regional Renewable Electricity Strategies, enabling a unified methodology for national and regional spatial and capacity targets, identifying areas suitable for renewable electricity deployment at regional and county levels that can inform the statutory planning process;*
- *Following adoption of the Regional Renewable Electricity Strategies, Local Authorities will include a statement within their next Local Authority Climate Action Plan which identifies the methods or processes that will be used to implement the required policy supports to achieve renewable electricity targets;*
- *In line with transposing the revised Renewable Energy Directive, which entered into force in November 2023, ensure that the permit-granting procedure, the planning, construction and operation of renewable energy plants, the connection of such plants to the grid, the related grid itself, and storage assets are presumed as being in the overriding public interest*

In short, CAP 2024 which updates CAP 23 highlights the national obligation to increase the deployment of renewables including onshore wind to meet our legally binding sectoral emissions targets. In this regard, it stresses and makes abundantly clear that the rate of required renewable deployment is unparalleled and must be circa eight times faster in the period 2024 - 2030 than the historical average.

Irrational Local Policy

The Proposed Development is not supported by the local County Development Plan in Waterford, following a change in wind energy designations, which came into effect in July 2022.

This section of the report sets out the previous local County Development Plan as a point of comparison to the current local County Development Plan. It describes the process of adoption of the new Plan and critiques the current plan against the policy context set out above. In this context the Waterford City and County Council Local Authority Renewable Energy Strategy (LARES) is firstly considered.

4.1.5 Local Authority Renewable Energy Strategy (LARES)

The Waterford City and County Council Renewable Energy Strategy 2016-2030 is included as Appendix 7 of the Waterford County Development Plan 2022-2028.

The SEAI 'Methodology for Local Authority Renewable Energy Strategies'¹⁴ states that "A LARES needs to be developed within the local, regional, national and European policy context. This initial step is vital to make sure that a concrete set of assumptions is developed for the strategy and to ensure the validity of the strategy in the context of national and European obligations".

The Waterford City and County Council Renewable Energy Strategy has not been updated since its preparation as part of the Waterford City Development Plan 2012-2018 / Waterford County Development Plan 2011-2017. The strategy is premised on 2020 renewable targets and is clearly outdated in terms of current renewable energy policy. Indeed, the Climate Change Advisory Council's Working Paper No. 16¹⁵ which provides a review

¹⁴ SEAI (2013) 'Methodology for Local Authority Renewable Energy Strategies'

¹⁵ Dr Connor McGookin (May, 2023) Reviewing Local Authority Renewable Energy Strategies' contribution to Ireland's 2030 Renewable Electricity Targets. A working paper commissioned by the Climate Change Advisory Council, Ireland



of Local Authority Renewable Energy Strategies (LARES) notes that while Waterford has committed a MW target for renewable energy it is not up to date with the Climate Action Plan with the renewable electricity target of 35% being significantly below the national objective of 80%. It is evident that the Waterford City and County Council LARES is not appropriate in the context of current regional, national and European renewable energy and climate resilience policy.

Further, while the Waterford City and County Council LARES identifies constraints and environmental considerations for wind energy development within the county (which focusses on landscape, heritage and protected areas) it does not include an assessment of the renewable energy resources and potential in the local authority area other than to consider wind speed. As such the LARES assesses the theoretical resource only and does not consider the accessible resource following consideration of appropriate setback margins from infrastructure e.g. roads, from residential and commercial properties, from watercourses, from protected areas etc. The LARES does not fully align to the SEAI 2013 methodology.

The appropriateness of the LARES relative to the delivery of national policy objectives is considered further hereunder through a comparison of the Waterford County Development Plan 2011 – 2017 and the Waterford County Development Plan 2022-2028.

4.1.6 Waterford County Development Plan 2011-2017 (as extended)

The Waterford County Development Plan 2011 – 2017 included the wind energy strategy map shown in Figure 4-1 below that identified parts of Waterford as being:

- Strategic
- Preferred
- Open to consideration
- No -go areas for renewable development

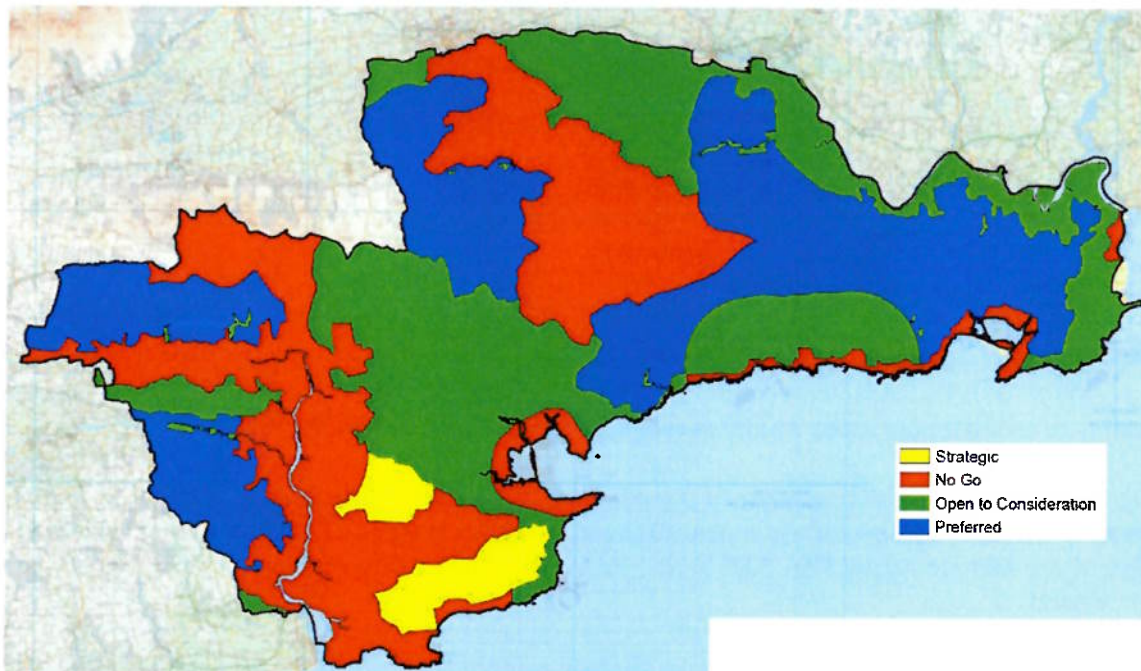


Figure 4-1: Waterford County Development Plan 2011-2017: Wind Energy Strategy Map



Figure 4-2 below overlays two basic development constraints on this map that are considered by all onshore wind developers in Ireland when examining site feasibility, namely a four times tip height setback from residential receptors (which is the setback standard in the Draft Wind Energy Guidelines 2019) and the avoidance of Natura 2000 sites. A 750m setback was used for the purposes of this exercise on the basis that modern turbines are up to 200m and this is therefore a conservative estimate. The beige colour in the map below highlights these constrained areas. Irrespective of any designation in the wind energy strategy, it would generally not be feasible to develop wind turbines on these lands due to proximity to residential properties or presence of a Special Area of Conservation or Special Protection Area.

Of the remaining areas, the red areas were designated ‘no-go’ areas in the 2011-2017 CDP and the pink areas (labelled “viable area” in Figure 4.2) were designated ‘open to consideration’, ‘preferred’ or ‘strategic’ areas in the CDP. Our analysis indicates that after these two basic constraints are applied, there was a remaining viable area of 69.78sq.km designated as open to consideration under the 2011- 2017 plan.

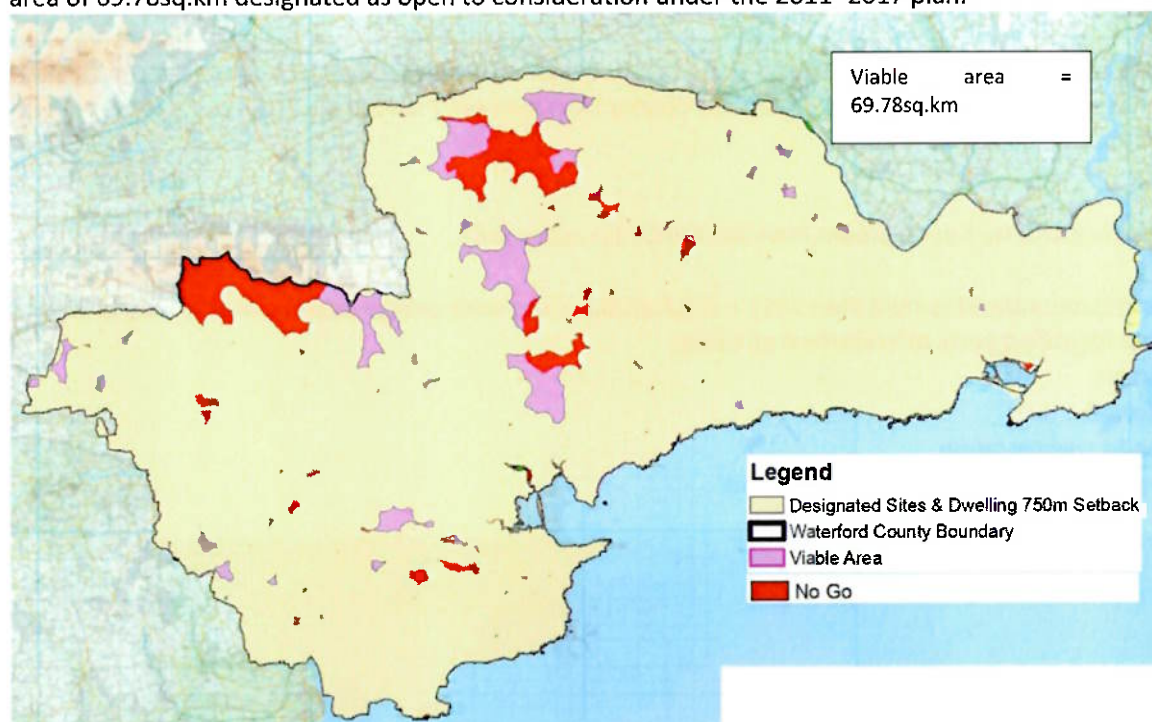


Figure 4-2: Waterford wind Energy Strategy 2011 – 2017 overlaid with residential and Natura 2000 setback constraints.

4.1.7 Waterford County Development Plan 2022-2028

Waterford County Council adopted a new county development plan in June 2022 (CDP 2022).

It is important to note that this was in advance of the adoption of our new legally binding sectoral emissions ceilings which were approved by Government in July 2022 and published in Sept 2022. It was also in advance of the publication of our Climate Action Plan 2023 which included further increased targets for onshore wind deployment in Ireland.

As part of the CDP 2022 an updated renewable energy strategy was prepared which included an updated wind energy strategy map shown in Figure 4-3 below. This identified different parts of Waterford as:

- Preferred
- Open to consideration
- Exclusion areas

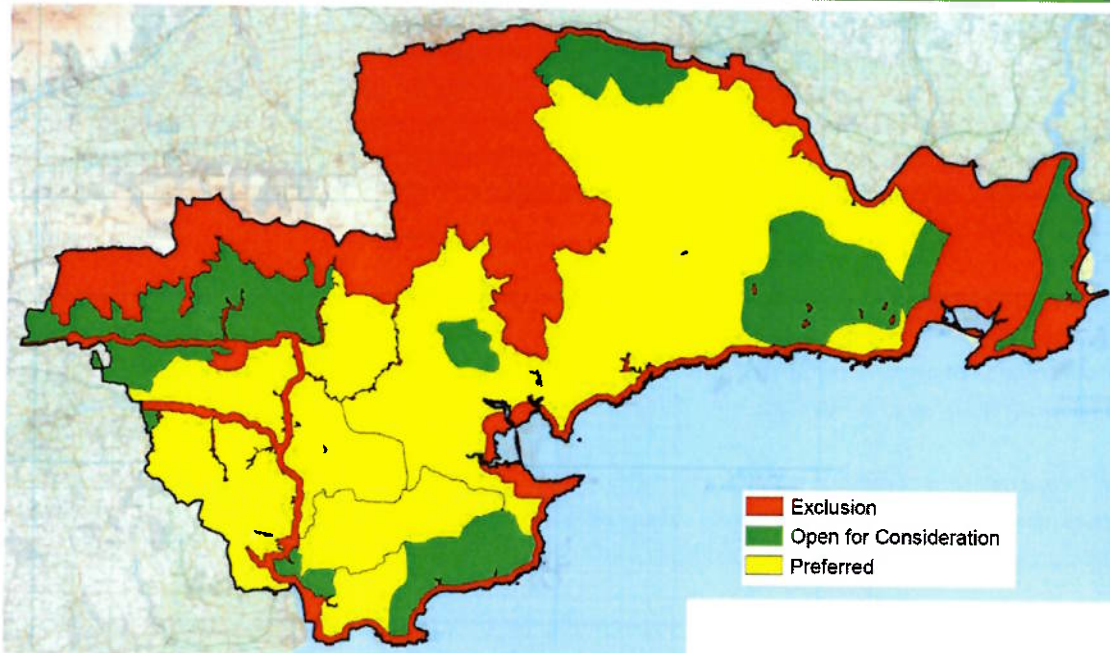


Figure 4-3: Waterford County Development Plan 2022 – 2028 : Wind Energy Strategy Map

Figure 4-4 below shows this map with the same two basic development constraints overlain – setback from residential receptors and from Natura 2000 sites. This analysis indicates that when these constraints are applied, the remaining viable area designated as ‘open to consideration’ or ‘preferred’ for wind energy development has actually been reduced to 62.48 sq.km.

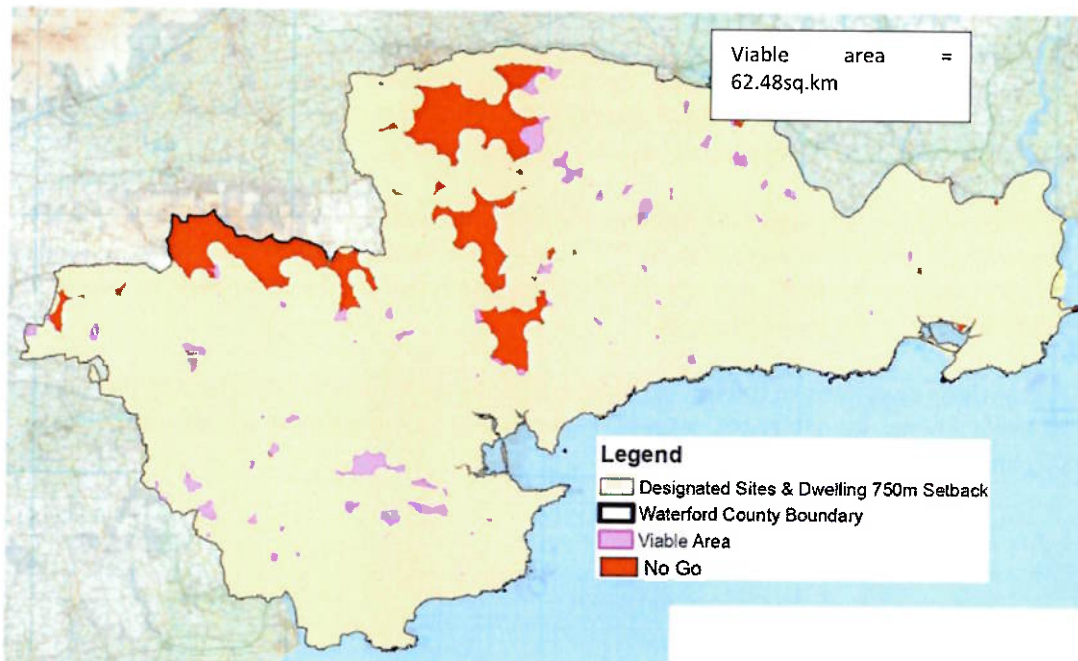


Figure 4-4: Waterford wind Energy Strategy 2022 – 2028 overlaid with residential and Natura 2000 setback constraints.



It is clear that the Wind Energy Map was developed in an *ad hoc* basis devoid of any evidence base or a consistent approach to constraints. The result of this approach is that the County Development Plan has removed wind energy potential in the county without a clear justification including removing development opportunities from transitional farmed and forested foothills landscapes. Such landscapes throughout the country, and in County Waterford have proved suitable to wind energy development because they have low population densities, good wind speeds as well as broad scale landform and land use patterns that can readily accommodate wind turbines.

A comparison of the previous and current WESs show that extensive areas of the landscape within the current 'No Go Areas' were 'Preferred Areas' and 'Open to Consideration Areas' in the previous Waterford County Development Plan. Bearing in mind that the landscape in question did not change, it was unclear how such a contrasting designation was arrived at.

The Chief Executive report did not include any further information on how the capacity of the landscape within these areas changed or why they became unsuitable for wind energy development. Ambiguity was also generated by the fact that large areas previously identified as 'No Go Areas' became 'Preferred Areas'.

The classification of the entire uplands and its surrounding foothills with a 'Most Sensitive' classification and the corresponding designation as a 'NO Go area', is considered overly simplistic and inaccurate. As set out in detail in Section 5 below and in Chapter 16 - Landscape and Visual of the EIAR, the central study area of Coumragappul Wind Farm is characterised by transitional land uses, including pastoral farmland, extensive conifer forest plantations and broad areas of moorland located along the more elevated sloping lands. Whilst there is no question that some aspects of the Comeragh Mountains, most notably the most elevated uplands situated along the main Comeragh Mountain ridgeline, possess qualities of 'unspoilt remoteness', the Site and central study area are typically influenced by working transitional land uses. Indeed, some parts of the central study area present as a highly modified landscape transformed by human intervention over the past century and beyond. Thus, it is not considered that the Site or its immediate viewing context present as an 'unspoilt' landscape. Indeed, these transitional working landscape contexts throughout the country have proved ideally suited to wind energy development because they have low population densities, good wind speeds and broad-scale landform and land use patterns that can readily accommodate wind turbines. Therefore, there is no basis for the Wind Energy Strategy to designate this area as a 'no go areas' for wind on this basis.

Thus, the broad brushstroke approach of classifying the entire uplands and their surrounding foothills as 'Most Sensitive' (the highest sensitivity classification in County Waterford), which has a strong influence on the proposed wind energy classifications, is inaccurate / inappropriate and largely eliminates the potential for wind energy development within County Waterford.

The Wind Energy Map contained in the County Development Plan effectively sterilises Co. Waterford for the purposes of Wind Energy Development over its lifetime. The policy position encapsulated in the Map is demonstrably incompatible with:

- The IPCC Synthesis Report
- The National Transition Objective,
- Section 17(1) of the Climate Acts 2021,
- The Sectoral Emissions Ceilings to 2030,
- The realisation of the Carbon Budget for the first two budget periods to 2030,
- The Long Term Climate Strategy,
- The declaration of a Climate Emergency
- Regulation 2022/2557
- The RED III Directive



The Wind Energy mapping is an absolute outlier in the policy framework. The Board clearly must *"have regard"* to it i.e. there is an obligation on the Board to be aware of its contents only – as noted by Mr Justice Holland (at §21 of Coyne) *"...regard generally does not require any implementation or compliance – slavish or otherwise"*

Conclusion

This section of the report clearly sets out Ireland's obligations in addressing Climate Change. 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 2023 which requires the installation of 9 GW of Onshore Wind Energy by 2030 and 6GW by 2025. 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 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 Bord Pleanála should perform their function. Section 17 of the Act 2021 requires the Board 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.

The Proposed Development is located within an area mapped as 'Exclusion' within the Waterford County Renewable Energy Strategy (noting that this is in contrast with the previous version of the Waterford Renewable Energy Strategy which designated the Proposed Development Site and surrounding landscape as an area 'Open to Consideration' for wind energy development). The current Strategy has resulted in an overall decrease in area for potential wind energy developments within the County. The Wind Energy Map that forms part of the County Development Plan, that effectively sterilises Waterford for the purposes of Wind Energy, is not compatible with Article 3 of Regulation 2022/2557 or the RED III Directive. In particular the presumption that such developments are in the over-riding public interest and must be accorded priority is completely incompatible with the purported sterilisation of the County.

It is respectfully submitted that the Board in weighing up competing policy objectives, must consider the overarching, legally binding, emissions reduction objective of the Climate Act 2021 and act in a manner that is consistent with the delivery of the legally binding sectoral emissions ceilings and associated Climate Action Plan targets.



5. RESPONSE: LANDSCAPE AND VISUAL

Introduction

Macro Works Ltd. undertook the Landscape and Visual Impact Assessment (LVIA) for the planning application EIAR for the Proposed Development. As such, this Landscape and Visual response statement was also prepared by Macro Works Ltd, a specialist LVIA company with over 20 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments. Relevant experience includes LVIA work on over 140 on-shore wind farm proposals throughout Ireland, including over 15 Strategic Infrastructure Development (SID) wind farms. Macro Works and its senior staff members are affiliated with the Irish landscape Institute.

Given the high number and consistent nature of the issues raised in Third-party submissions, these will be addressed by way of themes rather than on an individual basis. A specific response is also included in relation to a submission by Fáilte Ireland. The submission responses and themes to be addressed include;

1. Response to the submission by Fáilte Ireland and perceived impacts on the Comeragh Mountains
2. The scale and height of the turbines are considered to be too large for the receiving landscape.
3. The proposed turbines are located in a 'no-go area'.
4. The perceived visual impact of the Proposed Development on surrounding scenic routes and the Comeragh Mountain Drive.
5. The accuracy of the photomontages

Response to the submission by Fáilte Ireland and perceived impacts on the Comeragh Mountains

The submission from Fáilte Ireland notes that the “Irish landscape is one of the primary assets for tourism in the country and has been the cornerstone of international tourism marketing campaigns for decades” and gives a summary of the visitor attitudes to wind energy development in the Irish landscape, which was outlined in the 2007 ‘Visitor Attitudes on the Environment’ survey (updated in 2012) and the 2018 ‘Visitor Awareness and Perceptions of the Irish Landscape’ survey. The key findings of the 2012 and 2018 surveys are included below for reference:

- *Over half saw at least one wind farm in 2012 compared with under half in 2007 and more groups of wind turbines were detected as opposed to just one, as in 2007. Awareness of the existence of wind farms was higher among domestic visitors. As in 2007, in 2012 most wind farms were seen at a distance from the car. However, 2012 saw an increase in the number of farm sightings.*
- *More visitors saw turbines at closer proximity than on the horizon in 2012, versus 2007. Mountain moorland areas were the most prevalent sites where wind farms were seen. Sightings at coastal areas have reduced significantly. Impacts on sight-seeing were less positive in 2012, with a sharp rise in both negative and ‘no impact’ views compared with 2007. Those on countryside breaks, not on activity breaks and over 65s were most negative about wind farms being present when sight-seeing.*
- *The majority of participants favour small groups of large turbines over large groups of small turbines. When given a choice of groups of 5 or 25 turbines or 2 clusters of 10, the site with 5 turbines scored most positively or neutrally in 2012.*
- *In 2012, seventy-one percent stated that wind farms have either a positive or ‘no impact on their likelihood to visit Ireland, while just 24% are averse, leaving 5% saying it depends.*
- *In general, participants were most strongly averse to the construction of wind farms at coastal area, followed by fertile farmland, in 2012.*



- *In 2018, the results from a major study by Fáilte Ireland on tourism and landscape found that the majority of visitors appeared not to notice the majority of developments – even very large and visually prominent structures such as wind turbines and powerlines. It appears that there are significant divergences between what can be seen and what is noticed. The majority of visible development does not appear to have any adverse effects on the impression of the quality of the landscape.*

Notwithstanding the above summary, the submission from Fáilte Ireland states that the LVIA has “noticeably underestimated the likelihood of significant negative impacts that the proposed wind farm would have on the landscape and visual character of an extensive area of the Comeragh Mountains.” It further describes the “unspoilt remoteness” of the Comeragh Mountains and describes the ‘significant negative’ impacts as extending to the “lands to the south and to the west, including to the eastern and southern ranges of the Knockmealdown mountains on the Waterford Tipperary boundary”.

It is important to note that the significance of visual effects in the submitted LVIA Chapter 16 of the EIAR ranges from ‘Substantial-moderate’ to ‘Imperceptible’, with the most notable impacts occurring within the central study area. The central study area is characterised by transitional land uses, including pastoral farmland, extensive conifer forest plantations and broad areas of moorland located along the more elevated sloping lands. Whilst there is no question that some aspects of the Comeragh Mountains, most notably the most elevated uplands situated along the main Comeragh Mountain ridgeline, possess qualities of ‘unspoilt remoteness’, the Site and central study area are typically influenced by working transitional land uses. Indeed, some parts of the central study area present as a highly modified landscape transformed by human intervention over the past century and beyond. Thus, it is not considered that the Site or its immediate viewing context present as an ‘unspoilt’ landscape. Indeed, these transitional working landscape contexts throughout the country have proved ideally suited to wind energy development because they have low population densities, good wind speeds and broad-scale landform and land use patterns that can readily accommodate wind turbines.

The Fáilte Ireland analysis of the LVIA also notes that the significance of effect has been ‘underestimated’, whilst other 3rd Party submissions also note that the LVIA ‘downplays’ the effects. This is a common submission theme for nearly all wind farms. The general argument is “*how can turbines of this height not give rise to significant landscape and visual impacts?*”. The most appropriate response is that landscape and visual impact assessment is not only about scale but also context. The LVIA methodology also has to be consistent across a broad range of development types and landscape / visual settings. At one end of the spectrum, the very highest level visual impacts will occur from the visual blocking (elimination) of a high sensitivity view, such as a scenic designation affording vast views across a pristine naturalistic landscape, by a large and uncharacteristic development. At the other end of the spectrum, the lowest-order visual impacts will occur from the barely noticeable intrusion of a modest scale, characteristic development into an unremarkable and non-designated scene. Put in this context, the proposed turbines are a visual intrusion but not a visual obstruction. They are tall moving structures within a transitional landscape context viewed from upland areas to the east and more robust rolling rural lands to the west. Indeed, whilst the turbines will be a dominant built feature from some of the nearest surrounding visual receptors located within the immediate study area, the proposed turbines present with little strong sense of overbearing. Furthermore, when viewed from some of the more sensitive parts of the central study area such as elevated broad views, the turbines do not block distant panoramic views, and instead a notable sense of visual permeability is afforded through the development towards the distant landscape. It is for these reasons that the assessed visual effects for the Coumnagappul Wind Farm do not exceed the mid-high range of the impact spectrum or, therefore, the significance threshold.

Indeed, what the Fáilte Ireland response fails to identify is the varied landscape values and sensitivities of the Comeragh Mountains, some areas of which are associated with a very high visual receptor sensitivity classification, whilst other areas that are influenced by the working transitional lands would be considered to have a Medium or even High-medium visual receptor sensitivity.



Their response appears to give a blanket ‘very high-quality landscape’ assessment of the Comeragh Mountains, which, in reality, is a mountain range that comprises a broad and varied range of sensitivities, values and landscape areas and types. Unquestionably, some of the most distinctive aspects of the Comeragh Mountains are located to the east of its main ridgeline and include the highly distinctive Coumshingaun Lough and steep, rugged, rocky escarpments that define the eastern extents of the Comeraghs. Mahon Falls and the Magic Road are other notable amenities and attractions for national and international tourists situated along the eastern flank of the Comeragh Mountains, well offset from the Proposed Development. Overall, it is clear that some of the western aspects of the Comeraghs, such as the location of the Site and its surrounding lands, are much less distinctive than the rugged eastern parts of the Comeraghs and are more heavily influenced by the transitional working land in their immediate surrounds. As noted in Figure 1 below, the site is surrounded to the north, west and south by typical working transitional lands such as areas of agriculture and forestry, which diminish the overall landscape sensitivity of this part of the Comeragh and strongly contradict the ‘unspoilt remoteness’ characterisation of the surrounding lands.

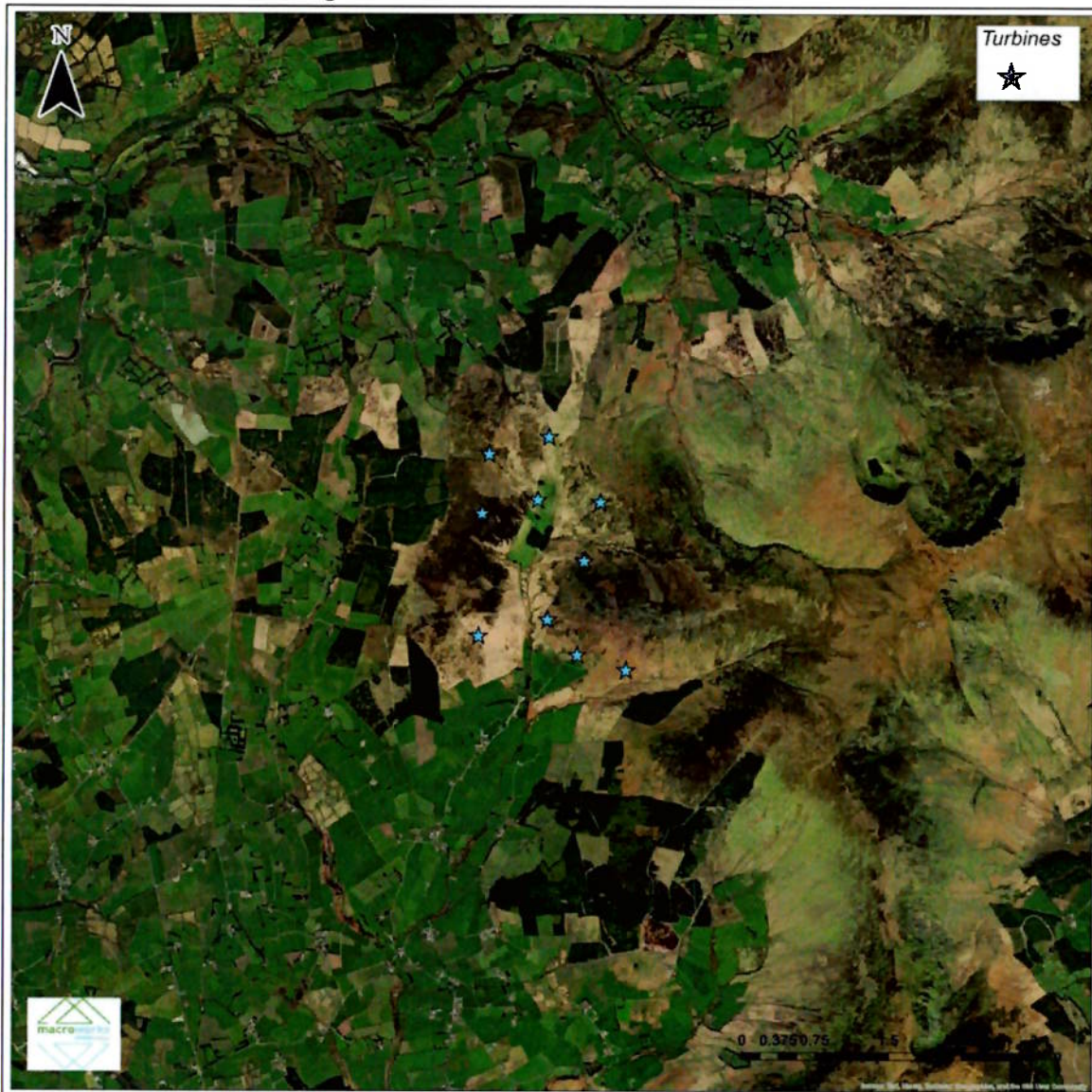


Figure 5-1: Aerial photograph showing the location of the proposed development in the context of the transitional working lands that influenced the western flank of the Comeragh Mountains.

Indeed, even from the highest peak of the Comeragh Mountains, Kilclooney Mountain (Fauscoum), the proposed turbines will only be partially visible and will not be a highly prominent feature of this broad sweeping



panoramic view. Viewpoint VP15 was selected as a representative view from the Comeragh Mountains and affords a broad 360-degree view across the wider Comeragh Uplands and in the direction of the Site. Much of the immediate context of the view is that of extensive areas of open moorland, whilst to the west in the direction of the Site, the terrain dips and rolls across several intervening ridges and hills. Up to 5 of the proposed turbines will be visible from this elevated view at a distance of 6.7km and are considered to have a sub-dominant presence in this sweeping panorama. Overall, whilst the turbines will marginally detract from the sense of remoteness in this upland view, they are viewed against a backdrop of a mix of working rural and transitional land uses such as conifer forest plantations and pastoral farmland. Overall, the significance of visual effect was deemed 'Moderate-slight', which is heavily influenced by the High visual receptor sensitivity, instead of the visual impact magnitude, which was deemed Low. Several other representative views were also selected to represent different parts of the Comeragh Mountains including the Nire Valley Trails and sections of scenic routes or linear amenity features along elevated lands in the surrounds of the Comeragh Mountains.

As noted in the submitted LVIA Chapter 16 of the EIAR, the Proposed Development will not result in significant impacts at surrounding amenity or heritage receptors, which includes for the Comeragh Mountains and its wider surrounding areas.

It is important to note that there will also be aspects of the western extent of the Comeragh Mountains where the proposed turbines will be visible where they will present with a more prominent visual presence. Seefin Ridge Walk is located to the southeast of the Site and is 1.5km from the nearest turbine at its nearest point, whilst the summit of this trail walk is 2.3km southeast of the nearest turbines. At a max height of c. 725.6m AOD, the summit of Seefin affords panoramic views across the wider Comeragh Mountains and the surrounding transitional working lands. Whilst a clearer view of the Proposed Development will be afforded from the summit of Seefin than from the summit of Kilclooney Mountain (refer to VP15), the proposed turbines will present in a similar context backed by the surrounding working rural and transitional land uses. Indeed, the proposed turbines will present with only a brief visual envelope in the context of the 360-degree panoramic view, and due to their loose and irregular spacing characteristics, they will not block or heavily obstruct the view of the surrounding distant landscape. Furthermore, in the case of the permitted Boggeragh II Wind Farm located in Cork, in which a section of the Blackwater Way passes directly through the site, An Bord Pleanála Inspector's Report stated:

"The proposed development will involve the introduction of large structures into the landscape at a relatively near distance along part of the route (The Ballyhoura Way). However, in the context of the assessment in relation to visual amenity and landscape above, I do not consider that the impact of the proposed development would significantly affect the recreational value of the walking route. I have no objection to the proposed development in this respect."

It is also important to reiterate the summarised findings of the Fáilte Ireland surveys, which state:

"In 2018, the results from a major study by Fáilte Ireland on tourism and landscape found that the majority of visitors appeared not to notice the majority of developments – even very large and visually prominent structures such as wind turbines and powerlines. It appears that there are significant divergences between what can be seen and what is noticed. The majority of visible development does not appear to have any adverse effects on the impression of the quality of the landscape."

Overall, the Proposed Development will not contribute to significant visual effects from landscape and visual receptors within the Comeragh Mountains or within the surrounding local landscape.



The scale and height of the turbines are considered to be too large for the receiving landscape.

One of the more repeated concerns relates to the scale and height of the proposed turbines and that they will be 'highly intrusive', 'visually domineering' and that the project is "out of scale and character with the community and the landscape".

With regard to the proposed 185m tip height turbines in this landscape context, they are not considered to appear out of scale or out of context in this transitional landscape context that is heavily influenced by large-scale landscape features such as the Comeragh Mountains, Monavullagh Mountains and Knockmealdown Mountains. The scale of the turbines is also well assimilated in regard to the broad underlying land uses, such as the extensive areas of Moorland and large blocks of commercial conifer forestry. This combination of broad scale landform and land use pattern is considered to be appropriate for tall turbines and this design approach is consistent with the Wind Energy Development Guidelines (WEDG - 2006 and draft revised 2019).

The WEDG promotes a design response to tall turbines in both the 'Transitional Marginal Landscapes' and 'Mountain Moorland' landscape types, with which the Proposed Development is most associated. With regard to 'Transitional Marginal Landscapes', the WEDGs state;

"In small-scaled enclosed areas, short turbines are preferred in order to avoid their spatial dominance and to ensure visual balance. However where the upper ground is relatively open and visually extensive, taller turbines may be more appropriate. In terms of perceived height, the profile can be even or uneven, depending on the profile and visual complexity of the terrain involved. The more rugged and undulating, the greater the acceptability of an uneven profile provided it does not result in significant visual confusion and conflict"

In relation to the 'Mountain Moorland' landscape type, which is most associated within the elevated lands immediately east of the site, the WEDGs states:

"There would generally be no height restrictions on mountain moorlands as the scale of landscape is so great. However, shorter turbines may be more appropriate where they are located on small peaks and outcrops in order to maintain an appropriate scale. Profile, whether even or uneven, is dependent on topography: the more rugged and undulating (e.g., knolls and crags) the more uneven it will be. The profile of the wind energy development should not necessarily run in parallel to that of the topography."

Indeed, there is a general acceptance of taller turbines in both landscape types. This perceived scale of the turbine is also further diminished by the surrounding landscape context, which comprises of broad scale landscape features and underlying land uses. Furthermore, it is also important to note that the draft Wind Energy Development Guidelines seek to accommodate taller turbines in populated rural areas without a sense of spatial overbearing by using a height-based buffer from residential properties equivalent to 4 X the turbine tip height. In the case of the proposed turbines, this requires a minimum 740m setback from the nearest surrounding residential receptors. The proposed turbine array exceeds this, with the nearest turbines situated some 820m from the nearest residential receptor.

There has been an industry-wide move towards the use of taller turbines over the past decade, and the proposed turbines are consistent with current trends in terms of permitted and proposed wind energy developments in similar landscapes. There is also a landscape and visual trade-off in terms of turbine density and scale to achieve an equivalent output. This is clearly evident in the 2007 Fáilte Ireland independent study (updated in 2012) looking at visitor attitudes to wind farm developments in the Republic of Ireland. The report found that "if both (wind farms) produced the same amount of electricity, tourists also preferred wind farms containing a small group of large turbines (55%) to a large group of smaller turbines (18%)". Indeed, Chapter 2- Site Selection and



Alternatives of the EIAR considered the alternative layout for a large group of smaller turbines and determined that it would have the effect of causing a cluttered view.

In summary, whilst the turbines will present at a prominent scale and will be one of the defining built features in the immediate landscape context presenting with some near-significant effects, the development presents well contained along the transitional lands west of the main Comeragh Mountain ridgeline and do not appear out of place or over-scaled in this broad landscape context.

The proposed turbines are located in a 'no-go area'.

Whilst the current renewable energy strategy for County Waterford identifies the Proposed Development within an 'exclusion area', this is in stark contrast with the previous version of the Waterford Renewable Energy Strategy (formed part of the previous Waterford County Development Plan 2011-2017, as extended), which designated the Site and surrounding landscape as an area 'Preferred' in relation to wind energy development. Within these areas, *"proposals for wind farms will be assessed on their merits with responsibility on the developer to demonstrate suitability of the site"*. Whilst the current Renewable Energy Strategy identifies some rationale for the updated wind energy classifications throughout the county, it is still relatively ambiguous as to how areas once classified as 'Open to Consideration' and 'Preferred' for wind energy development can now be classified as 'exclusion areas' when they have not been subject to any notable physical change or change in environmental designation under national or European legislation. Indeed, the current Waterford Renewable Energy Strategy puts a blanket 'exclusion' on wind energy development across almost the entirety of the Comeragh, Monavullagh and Knockmealedown Mountains, their surrounding foothills and a large portion of the more robust working lands located between the Comeragh Mountains and the Knockmealedown Mountains, within County Waterford.

What the renewable energy strategy does not account for is the varied sensitivities and values of the surrounding landscape, which are somewhat depicted in the landscape sensitivity classifications in Waterford, although the sensitivity classification also appears to be overly simplistic, classifying almost the entirety of the Comeragh and Monavullagh Mountains, and their surrounding foothills, with the 'most sensitive classification'. Whilst there is no argument that some of the more elevated upland areas within County Waterford are highly sensitive and have a low potential to accommodate development, these broad areas have wide-ranging sensitivities and values. In contrast to this, the rolling foothills surrounding these mountains are considered much less susceptible as many of these areas are currently characterised by anthropogenic land uses such as extensive areas of commercial forestry, overhead cable infrastructure, and pastoral farmland. Thus, it is considered that the broad brushstroke approach of classifying the entire uplands and their surrounding foothills as 'Most Sensitive' (the highest sensitivity classification in County Waterford), which has a strong influence on the proposed wind energy classifications, is inaccurate/inappropriate and largely eliminates the potential for wind energy development within County Waterford.

Further clear contradictions in the updated wind energy classifications are also noted throughout the Comeragh Mountains. The eastern flank of the Comeragh Mountains comprises some of the most visually susceptible rugged ridgelines, steep rocky escarpments and highly scenic upland lakes, such as the Coumshingaun Lough. The previous wind energy strategy included this entire part of the Comeragh Mountains as a 'No-go', which is clearly associated with its highly sensitive nature and limited capacity to accommodate development of any type. In contrast, much of the eastern flank of the Comeragh Mountains is now classified as 'Preferred', and no logical explanation is given regarding this new positive wind energy designation.

Overall, Waterford has considerable potential to accommodate wind farm development along less visually susceptible foothill landscapes located throughout the Comeragh Mountains, Monavullagh Mountains and the Knockmealedown Mountains, including the Site of the Proposed Development. Instead, the current Wind Energy Strategy has done a direct U-turn by classifying the more robust transitional landscapes as 'Exclusion Areas' and some of the most highly sensitive and visually susceptible landscape areas as 'Preferred' wind energy classifications, without any clear or logical explanation.



The perceived visual impact of the Proposed Development on the surrounding scenic routes and the Comeragh Mountain Drive

One of the concerns from the submissions, which is repeated several times, is the perceived impacts of the Proposed Development from the surrounding scenic routes and linear amenity routes such as the Comeragh Drive.

In terms of designated scenic routes within the study area, up to 13 viewpoints were selected to represent scenic designations throughout the study area. Nonetheless, it is important to note that several scenic routes and views and broad sections of some scenic route designations, especially those east of the Comeragh Mountains, will afford no visibility of the Proposed Development.

This is clearly identified in the submitted Zone of Theoretical Visibility (ZTV) mapping, which highlights that more than half of the scenic designations (static views and routes) will afford no visibility of the proposed turbines (Figure 2). Nonetheless, there is no question that a high degree of designated scenic amenity occurs within the study area, with the nearest scenic route located just under 2.5km west of the nearest proposed turbines. Thus, there will be clear visibility of the Proposed Development from various parts of scenic routes within the central and wider study area, especially where scenic routes and views are located along elevated terrain.

Scenic Route S8 is described in the current Waterford CDP as *“North-West from Dungarvan to Tooraneena on the R672. Third class North to Ballymacarbry. Join R671 to Clonmel taking the R678 and turning south for a third class route through the Comeraghs.”* It is one of the most extensive scenic routes that passes through the study area and is located just under 2.5km west of the nearest proposed turbine at its nearest point. Due to the expansive nature of this scenic route designation, it is represented by five viewpoints, including VP3, VP9, VP16, V22 and VP26. Sections of this route also form part of the Comeragh Mountain Drive and Sean Kelly Cycle routes, further heightening its sensitivity. The most notable visual impacts along this scenic route designation are likely to occur within the central study area. The nearest and most visually prominent views afforded of the proposed development from this scenic route are represented by VP16. Viewpoint VP16 affords a view of the turbines within a transitional foothill context, where they will present as prominent features and at a notable scale. Whilst the turbines will generate a notable increase in the intensity of built development in this transitional landscape context, they will not appear over-scaled, nor do they appear out of place in this landscape context that comprises a range of other working transitional land uses. Overall, the significance of visual impact was deemed Moderate at VP16, which was the highest significance of visual impact along scenic route S8. Whilst clearer views of the entire development have the potential to be afforded from other sections of this scenic route, such as viewpoint VP26, these views are afforded from a distance of over 8km, where the proposed turbines are considered to have a sub-dominant visual presence and are viewed in the context of a broad sweeping view of the Comeragh Mountains, where they do not appear out of place in terms of their scale or function. The significance of visual impact at all other representative views along the scenic route S8 was deemed to be Slight or less due to the viewing distances from the site and, in some instances, the partially screened nature of the Proposed Development.

The proposed turbines will also be visible from other sections of scenic route designations, the Comeragh Mountain Drive and other linear amenity receptors. The turbines will result in a detraction in the degree of scenic amenity from some of the nearest sections of scenic route designations, whilst the proposed turbines will only have a sub-dominant and minimal visual presence from others throughout the study area. Indeed, even where visible from scenic and amenity routes, the turbines do not appear out of place, nor do they appear over-scaled in the context of the broad surrounding land uses and landscape features. Overall, it is not considered that there will be significant visual effects at scenic route and scenic view designations throughout the study area, nor will there be significant visual effects and linear amenity routes within the central and wider study area.

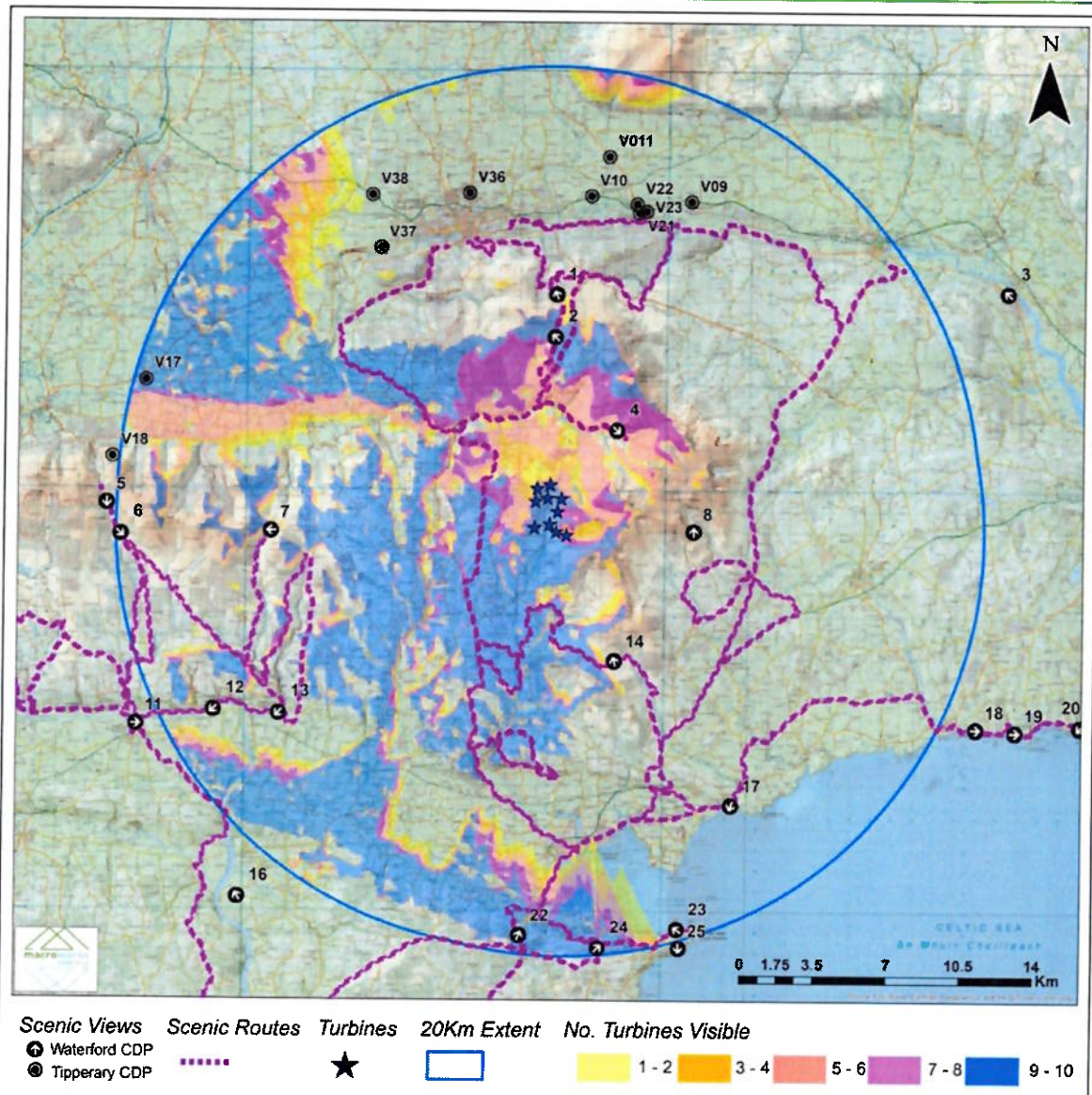


Figure 5-2: Location of designated scenic views and routes within the study area overlaid with the bare-ground Zone of Theoretic Visibility (ZTV) Pattern

The accuracy of the photomontages

In terms of the accuracy Macro Works produce their photomontage in line with the current Nature Scot Guidelines and guidance set by the British Landscape Institute 2011 –Advice Note 01/11. Viewpoints are selected and high quality photography in RAW format is captured using a digital SLR camera with a fixed 50mm lens on a Monfrotto pano head and leveller. Viewpoint locations are then spatially captured using a survey grade GPS unit to within 10cm of accuracy. High resolution 360 degree panoramas are generated from the captured photography. The scheme model is then placed using a Digital Terrain Model (created with a combination of LiDAR and OS Terrain Data) and real world reference points and is rendered in 3DS Max 2023 with identical image characteristics to that of the camera used for the baseline photography allowing the render and the photography to be merged with a high degree of accuracy.



Conclusion

The landscape and visual impact assessment as presented in Chapter 16 of the EIAR is a robust assessment of the potential effects of the Proposed Development and is in accordance with the requirements of the Wind Energy Development Guidelines, 2006 and draft revised Guidelines, 2019. The Applicant stands over the assessment presented with the significance of visual effects ranging from 'Substantial-moderate' to 'Imperceptible'.



6. RESPONSE: THIRD-PARTY SUBMISSIONS

Statutory Bodies.

The submissions lodged by the statutory bodies which raised issues with the application are outlined below. The main elements of these submissions relate to those raised by the other third party submissions. Issues raised within these submissions include topics such as: Policy, Ecology, Consultation, Land Soils and Geology, Hydrology, Watercourse Crossings, Aviation, Roads, Cable Route, EIAR, Visual Impact, Noise, Vibration, Archaeology & Cultural Heritage, Human Health. A number of the issues raised in these submissions are linked to those raised by third parties.

6.1.1 An Taisce

An Taisce have raised a total of 4no. observations on the proposed wind farm. These are summarised below and responded to in turn. Observations raised by An Taisce can be summarised under the following headings:

1. Infringement on Wind Exclusion Zones
2. Proximity to Watercourses
3. Proposed Development in Area of Upland Peat Soil
4. Legal Objectives of the Habitats Directive

Issue 1: Infringement on Wind Exclusion Zones

An Taisce have noted that the proposed development is located in an area which is noted in the 2022 – 2028 Waterford City and County Development Plan as an exclusion zone for wind development.

Response:

We refer to Sections 4.1 to 5.7 of this report.

Issue 2: Proximity to Watercourses

An Taisce note that the proposed development is in close proximity to a network of waterbodies, in particular tributaries of the River Colligan and River Nier. An Taisce have advised that the proposed development should be assessed against Article 4 of the Water Framework Directive.

Response:

The EIAR recognises the importance of the Colligan and Nier rivers and specifically notes the requirement to achieve High Status in accordance with Water Framework Directive requirements. Specifically, Chapter 12- Hydrology and Water Quality states *“The surface hydrological environment of the Proposed Development and its downstream catchments are considered to be of **High sensitivity** given that both the Colligan and Nier catchments have a High WFD status Objective / are part of the Blue Dot Programme”*. As such the impact assessment and all associated prescribed mitigation is premised upon the legal requirement to meet the objectives of the Water Framework Directive by ensuring that the biological, physico-chemical and hydromorphological quality elements for High Status waters as prescribed in the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (as amended) are not placed in jeopardy by the Proposed Development.



The approach to the determination of the final design and layout of the Proposed Development adopted the 'Good practice principles for development' (CIEEM, 2016)¹⁶ such that as first principles the Mitigation Hierarchy is applied i.e. *"Do everything possible to first avoid and then minimise impacts on biodiversity"*. In this regard all turbine foundations and roads have been cited a minimum distance of 75m from any watercourse and 15m from any drain (with the exception of where bridge/culvert crossings are required).

This setback aligns with Waterford City and County Council Development plan objective BD17 and also with Inland Fishery Ireland (IFI) Guidelines¹⁷ for the protection of watercourses and fishery habitat. Additionally, the drainage design for the Proposed Development has had full consideration of the existing hydrological regime in the Colligan and Nier sub-basins and has adopted SuDS principles as per the CIRIA SuDS Manual (c753) for sustainable drainage design.

Watercourse crossings similarly align to the aforementioned IFI guidelines which require that development does not cause a change in watercourse hydrological regime or morphological structure such that the Biological Quality Elements for Macroinvertebrates, Phytobenthos and Fish as prescribed in the Surface Water Regulations are retained. The construction methodologies for these structures are set out in Chapter 2- Development Description of the EIAR and the methodology for fluming / overpumping so as to create a dry works area is provide in Section 12.12.3 of Chapter 12 - Hydrology and Water Quality of the EIAR and includes measures to ensure that sediment runoff and disturbance to the rivers does not occur.

Additionally, the Proposed Development includes fishery improvement measures through the removal of an existing concrete apron which acts as a river ford on the Skeheens Stream and replacement with salmonid habitat, and the inclusion of eel brushes on the new watercourse crossing (Crossing # 5) on the Knockavanniamountain Stream (refer to Appendix 9.1 - Biodiversity Enhancement and Management Plan (BEMP)).

Notwithstanding the setback of the proposed development from drains and watercourses and the water protection measures that are inherent to the design, mitigation measures for the protection of water quality are set out in Section 12.12 of Chapter 12 – Hydrology and Water Quality and in the Surface Water Management Plan provided in Appendix D of the Construction Environmental Management Plan (CEMP) (see Appendix 2.1 of the EIAR) which are *"...aimed at ensuring no deterioration in WFD status of waterbodies within the catchments of the Project, noting that the rivers have High Status objectives and are included in the Blue Dot Programme"*. Mitigation measures are prescribed in relation to use of concrete, control of sediment runoff and management and monitoring of the local hydrology.

The objectives of the Water Framework Directive and associated ecological objectives for surface waters have been fully considered in the EIAR as demonstrated through Site Selection and Assessment of Alternatives and the mitigation measures prescribed in the EIAR.

Issue 3: Proposed Development in Area of Upland Peat Soil

An Taisce state that the development is to be located in an area of upland blanket peat soils, and as such the placement of turbines should be assessed carefully. The submission notes that some areas of deeper peat were identified during site investigation as stated in the EIAR. An Taisce recommends that a peat stability assessment be sought prior to any grant of permission, taking into account the upland sloped nature of the site and the determination of the impact on soils and geology receptors as being "of moderate significance". The submission also highlights Landslide Susceptibility at the site with a 'moderately high' to 'high' potential for landslides.

¹⁶ <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

¹⁷ Inland Fisheries Ireland (2020) A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate / Flood Risk and Recreational Planning *Including one-off developments AND Inland Fisheries Ireland (2016) Guidelines on protection of fisheries during construction works in and adjacent to waters



Response:

Development on terrain of an upland and sloping nature should not preclude it from development. Numerous upland blanket bog sites have been safely developed for renewable energy projects in Ireland.

The Geological Survey Ireland's (GSI) Quaternary Sediments mapping shows that the proposed Coumnagappul Wind Farm is located within a mix of Blanket Peat, till derived from Devonian sandstone, Alluvium deposits associated with the Colligan River and outcropping rock. In this context, one turbine location (T04) is located within an area mapped as bedrock outcrop or subcrop; eight turbine locations (T01, T02, T06, T07, T08, T10, T11 and T12) are located within areas mapped as blanket peat; and one turbine location (T05) is located within areas mapped as Till derived from Devonian sandstones.

As set out in Chapter 11 – Soils, Geology and Hydrogeology of the EIAR, for the purpose of optimising site layout relative to topography and ground conditions a series of geotechnical walkovers were carried out between 2020 and 2022 which concluded that the Coumnagappul Wind Farm is underlain by a thin mantle of blanket peat characteristic of a highly organic Topsoil with a Peaty appearance with slopes at the Site ranging from $<2^{\circ}$ to 16° . The minimum, maximum and mean peat depth recorded out of 200 peat probe locations from within and outside of the Site were 0.0m, 0.7m and 0.14m respectively. In general, thinner peat layers were encountered in areas of higher elevation/steeper terrain. The final site layout was set out such that areas of deeper peat were avoided and site infrastructure followed natural land contours such that it is sympathetic to the existing site topography.

Additional peat probing was carried out within the Site in 2022 once the optimised layout was established. Depths ranged from 0.05 to 0.6m with mean and median values of 0.12 and 0.10m respectively. The deepest deposit (0.60m) was encountered in the banks of a stream at ITM coordinates E 624238, N 608607 and is immediately flanked by shallow deposits to the east and west of 0.25 and 0.0m respectively.

Peat only accounts for 17.5% of the total volume of spoil to be excavated on site (excluding rock excavation at the borrow pit).

There is no uncertainty about the risk of a peat slide. The Coumnagappul Wind Farm Site is considered to be at Low risk of a peat failure in accordance with the Scottish Executive Best Practice Guide for Proposed Electricity Generation Developments (2017), as peat deposits at the site are <0.5 m in depth. As such, a peat stability assessment is not warranted.

The Landslide Susceptibility assigned by GSI for the Site directly correlate with mapped Blanket Peat deposits. However, field observations at these locations recorded slope angles ranging from 6° to 15° and peat depths of between 0.2 and 0.3m with no evidence of historic slope instability observed. In addition, desktop review of available aerial photography did not identify evidence of slope instability. The GSI Landslide Susceptibility Classification rating does not accurately reflect actual ground conditions encountered on site i.e. shallow peat or complete absence of peat deposits.

No evidence of slope instability was observed at the Site and there are no historical records of landslide activity within 1km of the Site on the GSI database.

A geotechnical assessment was undertaken using findings from the site walkover surveys and intrusive ground investigations and is presented in Appendix 11-1 – Geotechnical Assessment Report (GAR) in the EIAR which further sets out the imperceptible risk with respect to peat instability.



Issue 4: Legal Objectives of the Habitats Directive

An Taisce remind the Board that its obligations to ensure that the application can only be granted if it has been established beyond all reasonable scientific doubt that the proposed development will not adversely impact on any Natura 2000 sites. The location of the site in close proximity to the Comeragh Mountains SAC is noted.

Response:

The application for consent under Section 37E of the Planning and Development Act 2000 (as amended) is accompanied by a report to inform the Appropriate Assessment process (Screening and Natura Impact Statement) which has been prepared in accordance with *inter alia* the European Commission Notice (2021) on the 'Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC'.

European sites which may potentially be significantly affected by the Proposed Development were identified using the 'source-pathway-receptor' (S-P-R) conceptual model. The S-P-R assessment determined that there was no potential for significant effects for the Comeragh Mountains SAC (001952) due to the absence of pathway for effect. In this regard reference is made to the response the response to the submission from the Development Applications Unit in Section 5.5.2.

The potential for the Proposed Development (in the absence of mitigation) to adversely affect the integrity of the Lower River Suir SAC (002137), Blackwater River (Cork/Waterford) cSAC (002170), Dungarvan Harbour SPA (004032) and Mid-Waterford Coast (004193) was assessed in the Natura Impact Statement and mitigation measures prescribed to ensure no potential for adverse effects.

6.1.2 Development Applications Unit

The Development Applications Unit of the Department of Housing, Local Government and Heritage listed 4no. observations within their submission, these focussed on:

1. Consideration of Annex I habitats, in particular:
 - The obligations in relation to Annex I habitats under the relevant legislation
 - The Applicant's conclusions in respect of the presence of Annex I habitat on the Site
 - The approach to the assessment of the baseline environment of the Site, including habitat degradation and restoration
 - Connectivity with the Comeragh Mountains SAC
2. Drainage and Hydrology
3. Ornithology
 - Effects of habitat removal / displacement in particular for merlin, kestrel and hen harrier
 - Occupation of the area by golden eagle (and white tailed eagle)
 - Robustness of the Collision Risk Model and in particular how nocturnal movement of Golden Plover is addressed
 - Proposed post-consent ornithology monitoring – and the ascertain that monthly sampling is problematic and may underestimate casualties dramatically.
 - Suitability of vantage point surveys for cryptic species such as woodcock, snipe and red grouse
 - Net loss of habitat "linked" to the Comeragh Mountains SAC
4. Archaeology



Issue 1: Nature Conservation

Response:

Obligations in relation to Annex I Habitats

Annex I of Directive 92/43/EEC, the Habitats Directive, identifies certain habitats, referred to as Annex I habitats, which are considered to be in need of conservation due to their naturalness or rarity. Article 3 of the Habitats Directive sets out the nature of the protection to be afforded to these habitats and establishes a regime for their protection which involves the identification and designation of Special Areas of Conservation (SACs). In accordance with Article 3(2) of the Directive, these SACs are to be designated *“in proportion to the representation within its territory of the natural habitat types”*.

Article 6(1) of the Habitats Directive provides that *“for special areas of conservation, Member States shall establish the necessary conservation measures.”* Article 6(2) of the Habitats Directive requires that *“Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive” (emphasis added).*

Article 6(3) of the Habitats Directive further provides that *“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”*

The Proposed Development is not located within an SAC and as such, the development lands are not subject to conservation measures under Article 6(1) nor afforded strict protection under Article 6(2). This is the case whether the habitats within the development lands align to those listed in Annex I of the Habitats Directive or not. The Proposed Development will, be ‘screened’ by the competent authority for likely significant effects on a European site and, if likely significant effects cannot be ruled out, an ‘appropriate assessment’ (‘AA’) of the Proposed Development’s implications for the site must be carried out.

The Applicant has included as part of the planning application an AA Screening Report and Natura Impact Statement (NIS), noting that it was determined through source-pathway-receptor assessment that there is no potential for significant effects from the Proposed Development on the Comeragh Mountains SAC.

Presence of Annex I Habitat within the Wind Farm Site

Notwithstanding the above, following detailed assessment the Applicant has concluded, beyond scientific doubt, that there are no Annex I Habitats within the Site. The areas within the Site have been given no legal classification, have not been included in any prospective lists of SCIs that have been provided to the Commission, and do not form part of the Comeragh SAC.

The Applicant does not agree with the Department’s assertion that the wet heath and dry siliceous heath habitats within the Proposed Development Site (the ‘Site’) correlate to habitats of a quality / conservation value which would align with the definitions for 4010 Northern Atlantic wet heath with *Erica tetralix* and 4030 European dry heath habitats provided for in the Interpretation Manual of European Union Habitats. Indeed, in their submission, the Department recognizes the habitat degradation in the area and that historically there has been greater heath cover in the area.



It would appear that the Department's mapping for these habitats is significantly outdated and compiled from various desk and field study sources which date from between 1998 to 2015¹⁸.

As detailed in the EIAR, the habitat classification of the Site and its environs is based on a comprehensive programme of surveys and assessments carried out by competent experts in accordance with best practice and guidance. In particular, the Applicant's assessment has been carried out in accordance with:

- (i) 'Ecological surveying techniques for protected flora and fauna during the planning of National Road Schemes – Version 2' (NRA 2009)
- (ii) Heritage Council's Best Practice Guidance for Habitat Survey and Mapping (2011)
- (iii) CIEEM 'Good Practice Guidance for Habitats and Species' Version 3 May 2021.

The Applicant's assessment of the Site consisted of a series of botanical surveys over a three year period from 2020 to 2022 (with area-wide surveys conducted on 27th and 28th July 2020, 07th and 08th September 2021 and 07th June 2022). On all survey occasions, there was evidence of extensive uncontrolled burning and sheep overgrazing of the subject lands.

The condition of these habitats within the subject lands was assessed inter alia against the 'structure and function' conservation assessment condition criteria set out in Perrin *et al.* (2014)¹⁹. The structure and function parameter examines the vegetation composition and structure of the habitats and the physical structure of the substrate. Contrary to the focus of the Department's submission on number of relevés, the condition criteria prescribed in Perrin, 2014 are not only focused at relevé level assessment but also on an assessment at 'local vicinity' level and for example at '20m radius' for assessment of *Erica tetralix* cover. This level of assessment is prescribed in Perrin in order to assess the habitat in context. In fact, in the National Upland Survey report for the Comeragh Mountains²⁰ classified the habitat type and condition of the entire area of the SAC site (62.9 km²) based only on a total of 37 monitoring stops. Further details on same are provided in Section 3, Table 6, Page 11 of the report (extract included in hereunder) noting that the number of monitoring stops recorded in the Comeragh Mountains cSAC for Annex I dry heath habitat was 9 and for Annex I wet heath habitat was only 4. The number of relevés stops undertaken for the purpose of the classification of structure and function presented in the Upland Survey report for the Comeragh Mountains does not align to the requirements set out in Table 5 of the 'Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland' (Perrin *et al.*, 2014).

¹⁸ Reference: NPWS Project ID 1601_NSUH17 - An assessment of the conservation status of 10 habitats listed on Annex I of the EU Habitats Directive & consolidation of data from the NPWS National Survey of Upland Habitats.

¹⁹ Perrin, P.M., Barron, S.J., Roche, J.R. & O'Hanrahan, B. (2014). Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 2.0. Irish Wildlife Manuals, No. 79. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

²⁰ Roche, J.R., Perrin, P.M. Barron, S.J. & Daly, O.H. (2014) National Survey of Upland Habitats (Pilot Survey Phase, 2009-2010), Site Report No. 3: Comeragh Mountains cSAC (001952) Co. Waterford (Revision). National Parks and Wildlife Service, Department of the Arts, Heritage and the Gaeltacht, Dublin, Ireland.



NSUH Site Report No 3: Comeragh Mountains cSAC (001952) (Revision)

3. CONSERVATION ASSESSMENT

3.1 The conservation status of Annex I habitats that form the primary focus of the NSUH was assessed using the methodology detailed in Perrin *et al.* (2014). The assessments comprise three parameters: area, structure and functions, and future prospects. The area parameter examines gains or losses in an Annex I habitat. The structure and functions parameter examines the vegetation composition and structure of the habitats and the physical structure of the substrate; a total of 37 monitoring stops were recorded within the Comeragh Mountains cSAC for this purpose (Fig. 6 and Table 6). The future prospects parameter examines the current impacts/activities on the site that are affecting area and structure and functions, and predicts the future status of the habitat based on future trends where there is sufficient data. The future prospects parameter can also be informed by available data from the Commonage Framework Plan project (CFP).

Table 6: The number of monitoring stops recorded in primary focus Annex I habitats.

Annex I code	Habitat	Number of stops
4010	Wet heath	4
4030	Dry heath	9
4060	Alpine and boreal heath	4
*6230	Species-rich <i>Nardus</i> upland grassland	1
*7130/7130	Blanket bog (*active)	10
8110	Siliceous scree	4
8210	Calcareous rocky slopes	1
8220	Siliceous rocky slopes	4

Figure 6-1: Extract from NSUH Site Report No.3: Comeragh Mountains cSAC (001952) (Revision)

As part of the ecological field surveys carried out for the EIAR for the Coumnagappul Wind Farm, it was very apparent on each survey visit that even at a local level (without having to conduct detailed quadrat survey) the heath habitats within the Site are not of particular note or value relative to the condition criteria set out in Perrin *et al.*, 2014 given the cover of non-native species, the absence of *Erica tetralix* over extensive areas, signs of burning exposing peat, areas of exposed bare ground and areas of extensive cover of bracken (*Pteridium aquilinum*) – see Section 9.7.4 Description of Existing Habitats of Chapter 9 – Biodiversity of the EIAR. Notwithstanding the assessment of habitat quality within the Site, additional relevé surveys were carried out both within and beyond the Site boundary on 07th September 2021 in order to further understand the broader habitat quality. The results of these relevé surveys additionally indicated a paucity of healthy heath habitat in the locality to meet the condition criteria set out in Perrin for Annex I habitats of favourable status. The habitats within the Site and its environs do not correlate to habitats of a quality / conservation value which would align with the definitions for Annex I habitats 4010 Northern Atlantic wet heath with *Erica tetralix* and 4030 European dry heath.

Of note also is that the conservation objectives supporting document for the Comeragh Mountains SAC (NPWS, November 2021) recognises that the structure and function of heath habitat within the SAC is Unfavourable - Bad due to the exact same pressures that the Applicant has observed within and adjacent to the proposed development lands:

- “the structure and functions of 4010 Wet heaths are Unfavourable – Bad due to inadequate cover of desirable species including cross-leaved heath (*Erica tetralix*), ericoid species and mosses and lichens, and inappropriate burning”;



- “the structure and functions of 4030 Dry heaths were assessed as Unfavourable – Bad in the SAC..... the vegetation structure was poor with excessive grazing, burning in sensitive areas and poor structure of ling (*Calluna vulgaris*)”.

We reiterate that the Section 9.7.4 - Description of Existing Habitats of Chapter 9 -Biodiversity of the EIAR clearly sets out that there are no Annex I Habitats within the Site and therefore we refute the Department’s assertions in this regard.

Notwithstanding the clear assertion, supported by evidence, that the habitats that will be affected by the Proposed Development do not represent Annex I habitat condition, should any evidence to the contrary be obtained the decision on whether to grant planning permission for the Proposed Development must have recognition of the clear distinction in the level of protection provided to Annex I listed habitats occurring inside and outside of SAC boundaries. The level of statutory protection afforded to Annex I habitats outside of the Natura 2000 network should not be exaggerated to a status which reaches beyond the remit of the law and the purpose and intention of the Habitats Directive. In this regard, the Habitats Directive requires a balanced approach to habitat protection, specifically Article 2(3) requires that “Measures taken pursuant to this Directive shall take account of economic, social and cultural requirements and regional and local characteristics”. This is a particularly important consideration in the context of the current climate crisis and the obligations on the State to align Government Policies with the objectives of the Climate Action Plan 2023 and 2024 and also having regard to Council Regulation 2022/2577²¹ which places 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.

The concept of ‘shadow protection’ under the Habitats Directive has been considered before the Irish Courts. One case of particular note is *Sweetman and Another v An Bord Pleanála and Others (No. 1)* [2016] IEHC 277²² where the applicant contended that sites which host Annex I habitat are entitled to “shadow protection” by virtue of their status even if they are not proposed for listing as an SCI or an SAC and that appropriate protective measures contemplated in the Directive must be taken in respect of such sites.

In this case, it was submitted that even though the habitat in question (alluvial wet woodland) had not been designated as a European site or proposed to the Commission as an SCI, it was entitled to the same protection as that to which a European site is entitled until such time as a determination is made as to whether it should be so listed or designated. It was argued that “shadow protection” must be applied to such sites until an exhaustive list is drawn up by the relevant authority and the procedural and substantive requirements of Article 4 are satisfied.

The court considered this concept of a parallel scheme of shadow protection outside the provisions of the statutory framework and the Habitats Directive. The court rejected an argument that any lands which host a priority habitat type must automatically be afforded protection under the Habitats Directive.

The applicant submitted that the protection required under Article 6 of the Habitats Directive and Part XAB of the PDA to European sites also applied to sites containing Annex I habitats not submitted as part of the national list. It was established on the evidence and the court was satisfied that it was not a site which was entitled to Article 6 protections in accordance with the domestic statutory framework, the Habitats Directive or the jurisprudence of the Court of Justice. The court was also satisfied that Ireland, in submitting its list of candidate SCIs and engaging in the process of designating SACs, complied with its obligations under the Habitats Directive.

²¹ <https://eur-lex.europa.eu/eli/reg/2022/2577/oj>

²² See *Sweetman and Another v An Bord Pleanála and Others (No. 1)* [2016] IEHC 277



On the basis of the above it is appropriate and consistent with Government and EU policy to grant permission for the Proposed Development.

Habitat Restoration

We do not agree with the Department's statement that the heath habitat that has been degraded by burning and overgrazing will be restored to better condition, aligning to Annex I indicators. On the contrary, in accordance with the requirements of the EIA Directive and PDA 2000, the Applicant has assessed the 'future baseline' and the 'do nothing scenario', i.e. the likely evolution of the baseline in the absence of the Proposed Development, and this assessment has concluded that the further deterioration of habitat within and around the Site is likely due to the continued pressures already identified as impacting habitat quality.

Management measures (which have included initiatives such as the GLAS and REPS schemes) that have been adopted in the area have not been successful in protecting or restoring these habitats to date as evidenced by the assessment presented in the Department's own conservation objectives supporting document which shows that there has been a recorded progressive reduction in habitat extent of Annex I habitats within the SAC. This trend is also demonstrated by comparing the Article 17 habitat mapping for the area resulting from the assessment pursuant to Article 11 of the Habitats Directive carried out in 2019 to the results of surveys carried out as part of the EIAR for the Proposed Development, and when compared to the recent (2022) ecology surveys and habitat mapping carried out under the Comeragh Uplands and Communities EIP Project²³ which for example shows large areas formally mapped as 4010 wet heaths and 4030 dry heath under Article 17 habitat mapping to now comprise dense bracken (non-Annex I habitat, Fossitt Code HD1). It is very apparent that management measures have not been successful to date in restoring favourable conservation status, and, given the absence of a specific roadmap for habitat management in the locality, it is not clear how any future management measures might be more effective.

The Department specifically references the Comeragh Upland Communities EIP Project and the ACRES scheme as 'public awareness' and 'financial incentive' management measures that 'will in time improve ecological conditions'. We draw attention to the Comeragh Uplands and Communities EIP Project, Final Project Report and associated Commonage and Upland Reports which set out a list of potential actions to improve habitat conditions in the uplands which included the following:

- Reduce grazing pressure
- Bracken control and scrub removal
- Purple moor grass control
- Rewetting of habitats
- Management of burning in relation to areas and frequency
- Erosion control

It is apparent from reading the Comeragh Upland Communities EIP Project report that while there may be enthusiasm to implement the prescribed actions, most of the actions are deemed to be unachievable by the local farming community, with the report noting the following:

- *"The use of cattle grazing to reduce the area of bracken on dry heath and purple moor grass on wet heath was suggested. However, there was little enthusiasm for implementing the action amongst the farmers. Fencing and cattle management were the issues of concern.*
- *The farmers wanted to control bracken but were very challenged as to how it could be achieved. It resulted from the significant bracken areas located on parts of the upland unsuitable for machinery.*

²³ Comeragh Uplands and Communities EIP Project, Final Project Report: July 2021-September 2022 available at <https://www.teagasc.ie/publications/2023/comeragh-upland-communities-eip-project-report.php>



- *Cutting/crushing or bruising bracken are slow long-term options and not suitable on all upland terrains; spraying that can be effective but again is limited by terrain and the availability of the spray Asulox from 2022 onwards.*
- *The upland bog habitats and some heaths were assessed as poor. The action suggested for these was to restore them by fencing off areas or rewetting. Fencing was an option; however, there are challenges in planning and implementing the measure on the uplands and commonages.*
- *The concept of bog restoration was discussed. The farmers did not consider it a possibility. It was partly due to their experience of bog rewetting studies on CAFRE's Glenwherry upland farm. They had formed an idea of what was involved in the process but could not see it operating on their upland for many reasons, including access. They found it very difficult to consider the scale of the work required to achieve the objective. The large peat gullies around the periphery of the bogs made it challenging to visualise the rewetting process. In addition, there was concern about who had the right to receive payments for carbon sequestration on a commonage with several or more shareholders.*
- *Legacy burning of the uplands has impacted some commonages' habitat conditions. The prescribed burning training provided those burning with a greater awareness of what areas should (dry heath) and should not (wet heath and upland bog) be burnt and the size and shape of the areas.*
- *Scrub control can be implemented as there were no large areas that required control and could be managed by the shareholders or farmer".*

It is evident that the only actions that the farmers consider might be achievable relate to the control of burning and scrub control (only because scrub currently occurs in small areas). As such, there appears to be overall a very low level of commitment to habitat restoration under the EIP Project.

The EIP Project, in 2021, did include prescribed burning training for the involved farming community. Prescribed burning can be a useful tool in controlling natural succession and maintaining heath habitat once carried out at the appropriate time of year and at the appropriate frequency. Prescribed burning should be in accordance with the Prescribed Burning Code of Practice for Ireland which states that burning should not take place within Designated Habitats (e.g. Special Protection Areas – SPA's, Special Areas of Conservation – SAC's, Natural Heritage Areas – NHA's) - unless by agreement with the National Parks and Wildlife Service (NPWS). We note that, as prescribed in the Comeragh Upland Communities EIP Project report, the burning being carried out in the Comeragh Mountains is intentionally started to encourage grass growth for livestock and not for management of Annex I habitat. Additionally, as of yet it is not apparent that the training provided under the EIP Project has been successful in providing 'public awareness' given the extensive and uncontrolled damage caused to the upland habitats by inappropriate burning caused by uncontrolled wildfires in 2021, 2022 and 2023 as documented in national media.

Account should be taken of the benefits that the Proposed Development will bring to the potential for restoration of Annex I habitat.

The Applicant disagrees with the Department's suggestion that 'it has not been established that the proposed project would not cause a net loss of biodiversity'.

The Applicant, in the design approach to the Proposed Development, has had full regard to the ethos of Ireland's 4th National Biodiversity Action Plan and the intention of the recently approved Nature Restoration Law (Brussels, 22.6.2022 COM(2022) - Proposal for a Regulation of the European Parliament and of the Council nature restoration, approved in the EU Parliament on 27 February 2024) in that a balance must be achieved between decarbonisation efforts and biodiversity, such that climate adaptation/mitigation efforts (in this case wind energy development) do not contribute to biodiversity loss.



This approach is evidenced within Chapter 3 – Site Selection and Alternatives of the EIAR whereby the ultimate layout of the wind farm has been selected so as to avoid areas of higher quality habitat, with the turbines having been moved closer to the foothills of Comeragh West Mountain where habitat conditions are poor and do not align to Annex I habitat condition as demonstrated by the extensive areas of dense bracken growth and high proportion of negative indicator species such as soft rush and bramble – see Appendix 9.4 Releve Survey Report of the EIAR.

Article 11, Paragraph 5 of the EU Nature Restoration law states that “*Member States shall identify synergies with climate change mitigation, climate change adaptation and disaster prevention and prioritise restoration measures*”. In this regard, the wind farm will bring the benefit of removing the primary cause of habitat degradation in the area i.e. that there will be no burning of heath or other habitat in the wind farm vicinity.

The Site, including biodiversity enhancement areas will be controlled and actively managed by the Applicant to encourage restoration of heath habitat. The Biodiversity Enhancement and Management Plan (BEMP), presented in Appendix 9.1 of the EIAR requires the Applicant to implement the following management measures:

- (i) Management of two parcels of existing improved agricultural grassland (4.5ha and 12ha in area) in relation to grazing regime such that it be restored to heath habitat over time;
- (ii) Management of an area of ca. 5ha of dense bracken such that it is restored to dry heath habitat;
- (iii) Management of an area of 11ha of existing poor quality dry heath to improve species diversity;

The overall area of heath habitat that will be improved or restored as a direct result of the Proposed Development exceeds the area of 7.25 ha of dry heath and 5.94 wet heath to be permanently lost as a result of the Proposed Development.

As discussed in detail above, the losses of the heath habitat associated with the Proposed Development are not considered significant even locally due to the baseline quality of the habitat not aligning to the condition criteria which is representative of Annex I habitat and the ongoing trend of habitat degradation due to historically poor land management measures.

Further, the Proposed Development will include the provision of a Community Development Fund. The Terms and Conditions for the establishment of the Community Benefit Fund²⁴ include that a minimum of 40% of the funds shall be paid to not-for-profit community enterprises whose primary focus or aim is the promotion of initiatives towards the delivery of the UN Sustainable Development Goals. Goal 13 relates to Climate Action: “*Funds can be used to improve education, awareness- raising and improve capacity on climate change early warning, mitigation, adaptation and impact reduction*”. Additionally, the Terms and Conditions include for other thematic areas for funding support including: “*Biodiversity – Your project helps to protect, preserve and enhance habitats and life in your community, in particular those that contribute to ecosystem restoration in your area. Community Biodiversity Action Plans are especially desirable and can be supported as well as actions arising such as community allotments or bird nature trails*”.

Given the location for the Proposed Development within an area of heavily degraded heath habitat, we consider that the Proposed Development is uniquely placed to be able to contribute towards the achievement of national and European targets pertaining to both climate change mitigation and to biodiversity enhancement measures, through the measures described above.

²⁴<https://www.gov.ie/pdf/?file=https://assets.gov.ie/140382/b5198da9-c6c7-4af2-bbb5-2b8e3c0d2468.pdf#page=null>



Connectivity to the Comeragh Mountains SAC

For clarity, under the Habitats Directive the requirements for assessment are dictated by the designation of the European Site and / or identification of an SCI, as opposed to a general requirement for a wider assessment of habitats that may fall to be classified as Annex I. The implications for habitat types and species outside the boundaries of a European Site are required to be identified and examined provided that those implications are liable to affect the conservation objectives of the site.

The conservation objectives²⁵ for the Comeragh Mountains SAC lists the following Qualifying Interests, all of which are habitat types or flora i.e. the SAC is not designated for any mobile species:

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Water courses of plain to montane levels with the *Ranunculon fluitantis* and *Callitricho-Batrachion* vegetation [3260]
- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- European dry heaths [4030]
- Alpine and Boreal heaths [4060]
- Blanket bogs (* if active bog) [7130]
- Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110]
- Calcareous rocky slopes with chasmophytic vegetation [8210]
- Siliceous rocky slopes with chasmophytic vegetation [8220]
- *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216]

As part of the application for the Proposed Development, the Applicant has prepared an AA Screening Report and NIS. This has been carried out in accordance with best practice and all relevant guidance, in particular:

- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C(2021) 6913 final;
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin (2009, updated 2010);
- Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2018). Brussels, 21.11.2018 C (2018) 7621 final;
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission 2013;
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management Office of the Planning Regulator (March 2021).

The assessment was carried out in light of and in full consideration of the reports prepared under Article 17, and included a desk-based review and assessment of the following:

- Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive
- The online reports at - <https://nature-art17.eionet.europa.eu/article17/>, in particular those submitted by Ireland
- European site documentation including Conservation Objectives, National Parks and Wildlife Service (NPWS)
- NPWS Site Synopses, Natura Standard Data Forms available from NPWS

²⁵ NPWS (2021) Conservation Objectives: Comeragh Mountains SAC 001952. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.



- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports
- Existing relevant mapping and databases e.g. waterbody status, species and habitat distribution etc. (sourced from the Environmental Protection Agency - <http://gis.epa.ie/>, the National Biodiversity Data Centre - <http://maps.biodiversityireland.ie> and the NPWS - <http://www.npws.ie/mapsanddata/>)

At the screening stage, using the Source-pathway-Receptor approach, the Applicant identified all European sites that the Proposed Development could have potential effect on, i.e. those sites within the zone of influence of the Proposed Development. The zone of influence is determined *inter alia* through the assessment of the biophysical changes that are likely due to the Proposed Development including the temporal and geographical scale of these changes. These are set out in 'Table 2-12: Proposed Development Features and Potential Impact Factors' of the AA Screening / NIS. Thereafter, and in accordance with the EC Guidance²⁶ the European Sites within the zone of influence are identified as follows:

- *"any Natura 2000 sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;*
- *any Natura 2000 sites within the likely zone of influence of the plan or project. Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;*
- *Natura 2000 sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);*
- *Natura 2000 sites whose connectivity or ecological continuity can be affected by the plan or project."*

The Department has stated in their submission that the Wind Farm Site is 'hydrologically, geologically and geographically linked to the Annex I habitats within the adjoining Comeragh Mountains SAC, being effectively an ex-situ extension of the habitats outside the SAC boundary'. It is important to clarify that because the Wind Farm Site and Comeragh Mountains SAC are located within the same hydrological area (waterbody catchment IE_SE_17C010100), geological formation (Devonian Old Red Sandstones and peaty soils) or physical locality (at the Comeragh Mountains in County Waterford) does not make them "linked" from an ecological connectivity perspective.

The 'hydrological connectivity' referred to by the Department is unclear. The Proposed Development is located at the foothills of the Comeragh Mountains. The Colligan river is within the Wind Farm Site and originates within the foothills. The river does not originate from the lakes (Oligotrophic waters) which are Qualifying Interests of the SAC, nor does it support the floating river vegetation communities representative of 'Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation [3260]' (see Appendix 9.3 - Aquatic Survey Reports of the EIAR).

Other than these Qualifying Interests, the SAC is not designated for any other habitats or species which have attributes associated with river habitats. The Proposed Development will not have an effect on the existing drainage or hydrology of the Site (see response to 'Issue 2: Drainage and Hydrology' for further details).

²⁶ Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C(2021) 6913 final



As shown in *Table 2-12* of the AA Screening/NIS the Comeragh Mountains SAC does not overlap with any of the actions or aspects of the Proposed Development and cannot be directly affected by the development. Similarly, having regard to the geospatial scale of the potential biophysical changes to the environment from the Proposed Development as shown in *Table 2-12* of the AA Screening/NIS, the Comeragh Mountains SAC is not located within the area of the potential impacts of the Proposed Development such that it might be indirectly affected by aspects of the project i.e. it is located beyond the zone of influence of the area of potential dust emissions, beyond the areas of habitat loss or disturbance, and beyond the locations of potential discharges to water.

The Comeragh Mountains SAC does not host fauna that can move to the project area and then suffer mortality or other impact.

The Department has stated in their submission that the habitats within the Wind Farm Site are important because *‘they are connected to similar qualifying interest habitats within the directly adjoining Comeragh Mountains Special Area of Conservation (SAC) and therefore enhance and support those areas’*.

We emphasise again the differing level of legal obligation placed upon the State in protecting habitats within an SAC boundary (in-situ) and those outside of an SAC boundary (ex-situ). Notwithstanding that the habitats outside of the Comeragh Mountains SAC are *‘similar qualifying interest habitats’* of the SAC, these habitats cannot be viewed as an *‘extension’* of the SAC and the Appropriate Assessment process extends to these habitats only insofar as *“they are necessary to the conservation of the habitat types and species listed for the protected area”* as per Case C-461/17 Holohan and others v. An Bord Pleanála.

The potential impacts of the Proposed Development as set out in *Table 2-12* of the AA Screening/NIS are fully outside of the boundary of the Comeragh Mountains SAC and will not have any implications for the connectivity or ecological continuity of the SAC such that conservation objectives of the SAC could be affected. The Conservation Objectives report for the Comeragh Mountains SAC sets out the attributes required to ensure that the structure and function of these upland habitats are restored to favourable conservation condition. These attributes are as per those described in Perrin²⁷ et al, 2014 and relate to habitat area and distribution within the SAC as well as vegetation structure, composition and condition including negative indicators. On this basis it is unclear as to how the Department deems that the removal of heath habitat located approximately 700m from the SAC boundary will have a bearing on the distribution of habitat within the SAC or on the species composition within the SAC or how this habitat located outside of the SAC is *‘necessary to the conservation’*²⁸ of the habitats and species for which the SAC is designated.

Issue 2: Drainage and Hydrology

Response:

It is evident from the Department’s submission that there is an absence of understanding of the drainage design for the Proposed Development and of the hydrological interaction with the wider environment. Indeed the Department has stated that it *“does not have specialist hydrologist consultation available to independently assess the extent of such impacts on adjoining wetland habitats”*. In order to provide clarity we firstly confirm that the drainage associated with the Proposed Development is NOT conventional land drainage which is typically observed in an agricultural setting and by its nature is intended to remove rainfall runoff from drained lands as quickly as possible. On the contrary, the drainage design for the Proposed Development is based upon SuDS principles as per the CIRIA SuDS Manual (c753) for sustainable drainage design and in accordance with NatureScot (2019) Guidance - Good practice during Wind Farm construction (4th Edition Published: 2019).

²⁷ Perrin, P.M., Barron, S.J., Roche, J.R. & O’Hanrahan, B. (2014). Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. Version 2.0. Irish Wildlife Manuals, No. 79. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

²⁸ Case C-461/17 Holohan and others v. An Bord Pleanála



The SuDS philosophy is that the drainage design will mimic natural drainage that occurs prior to development and will manage the water as close to its source as possible. As such, the drainage design aims to manage the movement of water from up-topography to down-topography of the works such that natural hydrology is retained. Additionally, it is designed to segregate clean water from potential “dirty” water while maintaining flow regime.

The drainage design for the Proposed Development has had full consideration of the existing hydrological regime in the Colligan and Nier sub-basins. Extensive drainage calculations have been carried out for the Proposed Development as presented in the Surface Water Management Plan provided in Appendix D of the Construction Environmental Management Plan (CEMP) (see Appendix 2.1 of the EIAR). The settlement ponds have been individually sized on the basis of the catchment that it will serve and on the basis of Stoke’s Law in terms of required retention rate which account for change in rainfall intensity considering climate change.

All existing land drainage upstream of the works will be captured in interceptor drains and directed to cross drains. The number and location of interceptor and cross drains has been carefully determined based upon the assessment of individual sub-catchment flows and the identification of pre-existing low points in the terrain. The diffuse outfall is to lands within the same catchment of up-scheme flow. The number of cross drains allocated for this Proposed Development will ensure appropriate water balance up-topography and down-topography of the development. Interceptor drains are shallow such that they don’t cause a drawdown of water from adjacent habitat in such a way that might alter habitat structure.

Contrary to the Department’s assertions the drainage design for the Proposed Development will not cause “*alteration of the hydrological regime and removal of large volumes of water from peatland habitats*”. In fact the CIRIA (2019) Guidance to assess the benefits of blue and green infrastructure using “BEST” states that SuDS can have the benefit of enhancing biodiversity.

It is clarified also that the areas of habitat loss identified in Table 9-28: Habitat loss (habitat areas) within the main wind farm Site, page 120/178 Chapter 9 - Biodiversity of the EIAR accounts for habitat losses associated with drainage design and site earthworks.

Please also refer to Section 6.1.1 of this response document in relation to peat stability.

In relation to the potential for hydrogeological connectivity between the Proposed Development and the Comeragh Mountains SAC, reference is made to Table 11-12 in Chapter 11 - Soils, Geology and Hydrogeology which sets out the depth of groundwater strike encountered during ground investigation. Notably, much of the 4m deep trial pits did not encounter groundwater, and from examination of the borehole profiles, it is evident that the water ingress is associated with soil volume water as opposed to water in the bedrock. Additionally it is noted that competent bearing strata is typically encountered at the Site at between 2m and 4m. As such the requirement for extensive excavation is limited for the purpose of construction of turbine foundations. The potential for drawdown of water will therefore be localised and would not extend to the SAC which is located ca. 700m away.

Issue 3: Ornithology

Response:

The commentary presented by the Department is addressed under the following topic headings:

1. Effects of habitat removal / displacement in particular for merlin, kestrel and hen harrier
2. Occupation of the area by golden eagle (and white tailed eagle)
3. Robustness of the Collision Risk Model and in particular how nocturnal movement of Golden Plover is addressed



4. Proposed post-consent ornithology monitoring – and the assertion that monthly sampling is problematic and may underestimate casualties dramatically.
5. Suitability of vantage point surveys for cryptic species such as woodcock, snipe and red grouse
6. Appropriateness of bird transect routes relative to representative habitats
7. Net loss of habitat “linked” to the Comeragh Mountains SAC

Effects of habitat removal / displacement in particular for merlin, kestrel and hen harrier

In their submission the Department refers to the Proposed Development lands as ‘located on upland in largely undisturbed areas and contain habitats of conservation interest which provide habitat to several bird species of high conservation concern’. In this regard, we refer to our response to *Issue 1: Nature Conservation* which demonstrates that the habitats in question are in fact quite disturbed by agricultural practices and are of poor quality in relation to habitat conservation condition. Furthermore, we evidence hereunder by reference to the findings of ornithological survey, that, notwithstanding the location of the Proposed Development relative to the Comeragh Mountains, it is not an ‘important part of a larger [territory] unit’ and does not support important numbers of bird species of high conservation concern.

Chapter 10 of the EIAR provides an assessment of the significance of the effects of displacement and habitat loss as caused by the Proposed Development on birds. The assessment is premised on the findings of ornithological surveys which were conducted between the Summer of 2019 and the Summer of 2022 and were based upon the recommended guidance in ‘*Recommended bird survey methods to inform impact assessment of onshore wind farms*’ Scottish Natural Heritage (SNH), 2017 (noting that ornithological surveys at the Proposed development Site are ongoing).

The Site was covered by five vantage point survey locations. Further details on which is provided under the response relation to response item 3 – ‘Robustness of the Collision Risk Model’. It is of note that the duration of the surveys carried out for the Proposed Development far exceeds the recommended two year period prescribed in the Scottish Natural Heritage (SNH) guidelines and as such provides a very robust picture of bird activity in the area. The SNH guidelines requires 36 hours per vantage point (VP) for each summer and winter season over the two years, amounting to 144 hours of survey time. As per Table 6.1 the survey hours per VP at the Proposed Development is almost double that specified in the SNH guidelines.

Table 6-1: Vantage Point Survey Hours

VP No.	No. many seasons surveyed	Season hours							Total hours
		Summer 2019	Winter 2019/20	Summer 2020	Winter 2020/21	Summer 2021	Winter 2021/22	Summer 2022	
VP1	7	36	36	36	36	36	36	36	252
VP2	7	36	36	36	36	36	36	36	252
VP3	7	36	36	36	36	36	36	36	252
VP4	7*	0	36	72	36	36	36	36	252
VP5	2	0	0	0	0	0	36	36	72

7* - VP4 was surveyed for 6 seasons but survey effort was doubled to 72 hours in summer 2020 survey period to compensate for summer 2019 surveys not carried out.

VP5 - To maximise coverage of the west/south-western area of the proposed development site, a fifth VP was added (VP5) at the beginning of season 6 (winter 2021/22).

The findings of vantage point surveys for merlin, kestrel and hen harrier are set out in Appendix 10.1_Ornithology Report-1.3 and are summarised below:

Hen Harrier



Hen Harrier was recorded during both summer and winter season vantage point surveys, on a total of 17 occasions. There were a 12 sightings of hen harrier across the four consecutive summer bird survey seasons (2019 – 2022, inclusive). Of these, 9 sightings occurred during the hen harrier breeding season (April to August, inclusive as per SNH, 2017) and were recorded across summer 2019, summer 2021 and summer 2022. Winter sightings of hen harrier were infrequent across the three consecutive winter seasons surveyed. There were no sightings of hen harrier in winter 2019/20 and a total of five sightings across the winter 2020/21 and 2021/22 seasons combined. A total of 130 seconds of hen harrier flight time occurred within the flight activity survey area in the rotor sweep zone during the 1,080 hours of vantage point surveys carried out between 2019 and 2022. This equates to hen harrier activity within the rotor swept zone for only 0.0033% of the 3.5-year survey period.

Merlin

Merlin was recorded on a total of 8 occasions during the survey period. There were 3 sightings of merlin across the four consecutive summer bird survey seasons (2019 – 2022, inclusive), two of which occurred during the merlin breeding season (April to July, inclusive) (SNH, 2017). The breeding season sightings occurred in summer 2019. There were no breeding season records of merlin in 2020, 2021 or 2022. There were a total of 5 winter season sightings of merlin across the 3 consecutive winter seasons surveyed. A total of 180 seconds of flight time occurred within the flight activity survey area in the rotor sweep zone during the 1,080 hours of vantage point surveys carried out between 2019 and 2022. This equates to merlin activity within the rotor swept zone for only 0.005% of the 3.5-year survey period.

Kestrel

Kestrel was by far the most frequently recorded raptor species. During VP surveys, a total of 79 summer sightings were recorded between 2019 and 2022, the majority of which occurred during the kestrel breeding season. Kestrel was confirmed nesting on-site during surveys in summer 2020 (south of VP1), as outlined in Section 3.1.1.4 of the ornithology report. A total of 4,151 seconds was logged in the flight activity survey area in the rotor sweep zone. This equates to kestrel activity within the rotor swept zone for only 0.1% of the 3.5-year survey period.

Overall, levels of raptor activity recorded during VP surveys, including for hen harrier, merlin and kestrel in particular, were not considered high, especially in the context of the numbers of sightings of these species relative to the length of time over which VP surveys were undertaken (comprising 3.5 consecutive years).

The low levels of raptor activity recorded correlates with the habitat condition at the Proposed Development and its environs. The Proposed Development is located in the foothills of the Comeragh Mountains where the landscape is transitional towards agricultural usage. The habitats are subject to a high degree of disturbance and degradation through burning and over-grazing.

The assessment of the significance of effects on avifauna as presented in Chapter 10 of the EIAR has been carried out following best practice published guidance: Percival, S. M., (2003)²⁹ 'Birds and wind farms in Ireland: a review of potential issues and impact assessment' Report to S.E.I.

²⁹ As per Percival, 2003 'High' magnitude of effect is classified as "Major loss or major alteration to key elements/ features of the baseline (pre-development) conditions such that post development character/ composition/ attributes will be fundamentally changed". 'Medium' effects are described as "Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition/attributes of baseline will be partially changed". 'Low' effects equate to "Very slight change from baseline condition. Change barely distinguishable, approximating to the "no change" situation".



In terms of the effects of direct habitat loss, the EIAR, in Chapter 10, Table 10.5 identifies that the overall significance of the effects of habitat loss for hen harrier, kestrel and merlin will be 'High'. For displacement during construction (Table 10.6) the significance of effects for these species ranges from 'Medium' to 'High':

- Hen Harrier Overall significance: Medium. (Criteria: Percival, 2003) based on area wide disturbance.
- Kestrel Overall significance: High. (Criteria: Percival, 2003) based on high activity at site and suspected nesting on site.
- Merlin Overall significance: High. (Criteria: Percival, 2003) based on the potential for the area to support nesting merlin.

For disturbance and barrier effects during wind farm operation, Table 10.8 of the EIAR identifies significance ranges from 'Low' to High:

- Hen harrier Overall Significance: Medium (Criteria: Percival 2003) based on acclimation over time and low frequency of occurrence at the site.
- Kestrel - Overall Significance: High (Criteria: Percival 2003) based on low habituation to wind farm presence.
- Merlin - Overall Significance: Low (Criteria: Percival 2003) due to barrier effect mainly being associated with migration coupled with low numbers.

As such, and contrary to the tone of the Department's submission, the EIAR clearly identifies a potential for a negative impact on these species.

Mitigation measures are specifically prescribed in Section 10.7 of Chapter 10 of the EIAR aimed at reducing the disturbance effects on birds. A Biodiversity Enhancement and Management Plan (BEMP) has been prepared for the Proposed Development (see Appendix 9.1 of the EIAR) which has a particular focus on enhancement of nearby agricultural lands for raptor species. These lands are included within the Proposed Development red line boundary but are set back from the wind turbines so as not to create an increased collision risk. These agricultural lands will be managed so as to evolve towards higher quality heath and grassland habitats. The location of these enhancement lands has been specifically selected such that they will provide continuity of existing heath and grassland habitats in adjacent lands and will thereby potentially extend the territory of raptor species using the Proposed Development lands. Additionally, the BEMP includes the creation of meadow grassland to provide habitat for hunting barn owl and kestrel and for ground-nesting birds, and includes the provision of kestrel nest boxes, the inclusion of broadleaf planting and the creation of heath habitat.

As such, full consideration has been given in the EIAR to bird usage of the Site and environs, and in particular to raptor species and measures have been included to ensure the continuity and availability of appropriate habitat for these species in light of the Proposed Development. It is worth noting again also that there will be an associated reduction in on-site burning due to the presence of the wind farm in the area which will also be contributory to habitat improvement in the locality for birds.

Occupation of the area by Golden Eagle (and White-Tailed Eagle)

The Department refers in its submission to the presence of both golden eagle and white-tailed sea eagles and states that *'while we accept that they were not detected during the surveys of the site we consider their now well-known presence and proximity to the development should be considered in the EIAR'*.

By way of background information, the Applicant notes that during desktop study as part of the preparation of the EIAR, the NBDC on-line database was accessed (in June 2021, September 2022 and March 2023) for the hectads S20 and S21, which encompass the Proposed Development, in relation to all bird species records. There are no historic or recent records reported within these hectads for golden eagle or white-tailed eagle. It is noted however that there are records for white-tailed eagle in the wider environment (see Figure 6.2) with most of these records relating to the years 2018 and 2019.



The reintroduction programme for white-tailed eagle in Ireland involved the release of 100 young birds from Norway in Killarney National Park, Co. Kerry, over the period 2007 to 2012 (O'Rourke, 2014)³⁰. In 2020, the National Parks and Wildlife Service began a second phase of the reintroduction programme (2020-2022) involving the release of young eagles at several sites, including Lough Derg, the lower Shannon estuary and Killarney National Park. Although white-tailed eagles have been seen in most counties in Ireland, the key area in which white-tailed eagles are most frequently recorded remains the vicinity of Killarney National Park as this is a strong hold for the species as is evidenced by the reported sightings of these birds to NBDC (see Figure 6.2).

The Applicant is aware that white-tailed eagle was present in the Comeragh Mountains in 2022 and acknowledge that there have been sightings of golden eagle recorded in 2023 for the 'Comeragh Mountains' area as reported on the Irishbirding.com website. In addition, there are two records of white-tailed eagle in the wider area (available from Irishbirding.com). However, throughout the 3.5-year ornithological survey period (April 2019 – September 2022) for the Proposed Development there were no sightings of either golden eagle and white-tailed sea eagle during any of the surveys undertaken (ornithological or other ecological, including hinterland survey). While it is acknowledged that these birds may use the wider area, the Proposed Development lands are very evidently not an area with a high density of white-tailed eagles or golden eagles, as borne out by the survey results coupled with the very few observations of these species in the wider environment as reported to the NBDC or Irishbirding.com. It is apparent from the absence of sightings of these species during the ornithological surveys that the Proposed Development lands are not an important habitat for them and that there is no nest site nearby. Indeed the low suitability of the Proposed Development lands is equally reflected in the low levels of all raptor activity documented over the 3.5 year survey period.

Notwithstanding the absence of observations of eagle species within the Proposed Development lands during 3.5 years of ornithological survey (April 2019 – September 2022), consideration is given to the potential for collision risk for these species. The avoidance rate for eagle species from turbine collision is documented as high at 95% for white-tailed eagle and 99% for golden eagle as per (SNH, 2018)³¹. Given that no flights for these species were observed during ornithology survey, a substitute/comparative assessment can be made for collision risk by reference to the collision risk modelling assessment which has been completed for common buzzard *Buteo buteo*, which has a similar flight behaviour to white-tailed and golden eagle, albeit it is a smaller bird. Although white-tailed eagle is larger than buzzard, and the avoidance rate for white-tailed eagle (95%) is slightly less than the default used for buzzard (98%, the rate applied to species lacking other evidence) (SNH, 2018) while the avoidance rate for golden eagle is greater at 99%. Flight behaviour and flight speed are not dissimilar between the species (Bruderer & Bolt, 2001)³². The collision risk modelling estimated that two buzzards would collide with the proposed turbines over the 40 year operation life of the Proposed Development (see Appendix 10.2 of the EIAR). Given, as described above, no observations of white-tailed eagle or golden eagle were made during 3.5 years of survey, it is clear that collision risk for eagle would be of a much lower magnitude (i.e. near zero), and not significant.

Additionally, the low level of eagle activity in the area, as evidenced by NBDC data, would indicate that the Comeragh Mountains are not a nest site for eagle species. Krone and Treu (2018)³³, using satellite telemetry in Germany, (on limited data involving nine territorial eagles) recommended that a 3 km safety radius between nest sites and wind farms be made an international standard along with a safe corridor to feeding grounds, and also to avoid the main distribution areas of eagle. The core range of white-tailed eagle is taken by NatureScot³⁴ to extend to 5 km from a nest site, with a maximum range of 13 km and 6km for golden eagle, with a maximum range of 9km.

³⁰ O'Rourke, E. (2014). The reintroduction of the white-tailed sea eagle to Ireland: People and wildlife. Land Use Policy, 38: 129-137. <https://doi.org/10.1016/j.landusepol.2013.10.020>

³¹ SNH (2018). Avoidance Rates for the onshore SNH Wind Farm Collision Risk Model, SNH.

³² Bruderer, B. & Bolt, A. (2001). Flight characteristics of birds: I. Radar measurements of speeds. *Ibis*, 143: 178-204.

³³ Krone, O. & Treu, G. (2018). Movement patterns of white-tailed sea eagles near wind turbines. *Wildlife Management*, 82: 1367-1375.

³⁴ Scottish Natural Heritage (2016) Assessing Connectivity with Special Protection Areas (SPAs) Guidance



In this regard, it is important again to note that the Proposed Development is not within a main distribution area of white-tailed eagle or golden eagle (as evidenced by the absence of observations during the ornithology surveys and limited historic records for the species in the area). Additionally, there are no known eagle nest sites within at least 15 km of the Proposed Development site. Evidently the Proposed Development and wider environment is neither a key foraging area nor located on a commuting route to a key foraging area for eagle species.

Notwithstanding the absence of eagle from the locality of the Proposed Development, the Applicant will commit to carrying out inspections for and removing dead sheep in the wind farm area as carrion is a major foraging resource for eagle and the most likely reason that one might enter the wind farm site.

Overall, it is reasonable to conclude that risk to white-tailed eagle and golden eagle from the proposed Coumnagappul Wind Farm is negligible, and that further revised assessment is not necessary.

NBDC records for golden eagle and white-tailed eagle

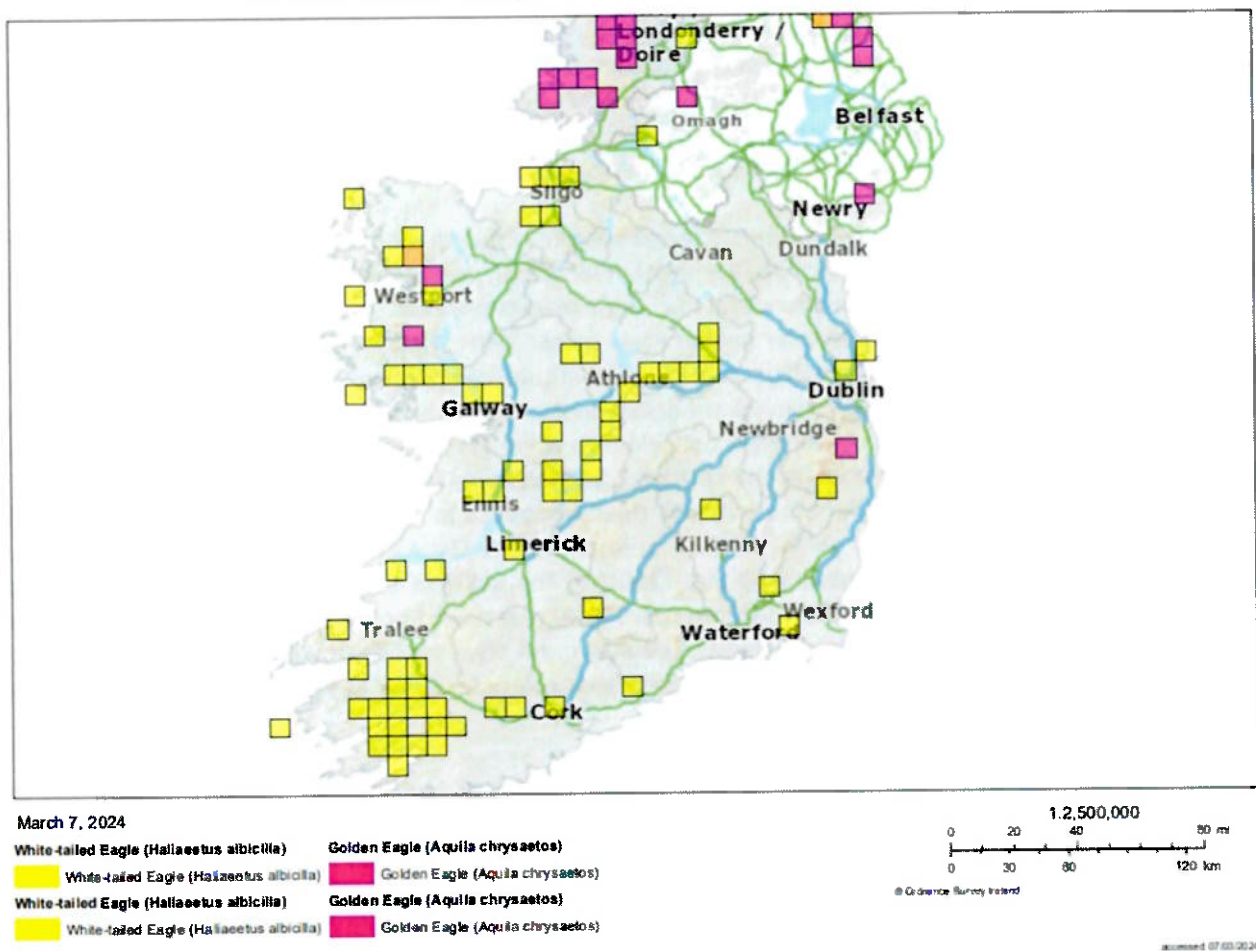


Figure 6-2: Eagle Observations



Robustness of the Collision Risk Model and in particular how nocturnal movement of Golden Plover is addressed

Robustness of the Collision Risk Model

Collision Risk Modelling (CRM)³⁵ is a method to estimate the potential number of bird collisions likely to occur at a proposed wind farm. The determination of bird collision risk is based upon the identification of the 'flight risk volume/flight risk window' associated with the development. The 'flight risk volume/flight risk window' is the area/layout of the windfarm multiplied by the height of the turbine. Estimation of the bird occupancy within the 'flight risk volume/flight risk window' uses bird flight activity survey data collected through vantage point survey (i.e. the number of birds present multiplied by the time spent flying in the 'flight risk volume/flight risk window'). The CRM firstly estimates the number of collisions that would occur if the birds were to take no avoidance action. It then applies an avoidance rate to take account of the likely degree of successful avoidance of individual bird species (based on scientific evidence).

As such, not all of the flight activity data collected in the field is adopted into the CRM i.e. it is only the flight activity that occurs in the flight risk volume/flight risk window that is accounted for in the CRM. In fact, for the Proposed Development, none of the flight activity data collected from VP5 was included in the Collision Risk Modelling calculations because there are no proposed turbines located within the viewshed of VP5 so collision risk model calculations will always have an output of 0 predicted collisions for this VP. Similarly, any data collected outside of the viewshed for any of the other VP locations or bird flights lights that are below or above the Potential Collision Height (PCH) would have been discounted for use in the CRM. This would explain any disparity between hours of collected flight activity versus hours within the collision zone as applied in the CRM.

The greater amount of bird flight data obtained for a Proposed Development, the greater the confidence in the CRM. The Scottish Natural Heritage recommends 2 years of flight data for the purpose of CRM. It is of note that 3.5 years of data has been collected for the Proposed Development.

The SHN guidelines³⁶ recommends that the bird flight activity survey (i.e. the timed watches from strategic vantage points) should cover a survey area encompassing the proposed turbine envelope plus 500m buffer beyond the outermost proposed turbines to deal with inaccuracies of position for flight line observations. The guidelines specify that the survey area must adequately cover the entire development area, i.e. the largest possible layout, all the alternative layouts and ancillary structures and works. This approach allows for design flexibility in relation to turbine layout within a proposed developable area. However, the plans and particulars submitted with the planning application for the Proposed Development are fixed and as such there is no scope for alternative layouts within the developable area. Therefore the planning application represents the largest possible area of flight risk volume/flight risk window. The vantage point (VP) surveys for the Proposed Development fully cover the entire development area.

While it is recognized that the viewshed coverage for the Proposed Development does not cover the entirety of the 500m buffer, it is asserted that the completeness of the CRM has not been affected on the following basis:

- The CRM has been calculated based upon 3.5 years of data which is significantly over and above the 2 years recommended in the guidelines;
- As demonstrated in Appendix 1.2 - Curricula Vitae of the EIAR, the ornithologists who undertook the bird activity surveys for the Proposed Development are experienced and competent in particular at surveys for wind farm developments, for which the estimation of flight height and distance is an integral part of the survey requirement. As such, the potential for "inaccuracies of position for flight line observations" is low;

³⁵ Scottish Natural Heritage Guidance: 'WINDFARMS AND BIRDS: Calculating a theoretical collision risk assuming no avoiding action' and 'Avoidance Rates for the onshore SNH Wind Farm Collision Risk Model' September 2018

³⁶ Scottish Natural Heritage Recommended bird survey methods to inform impact assessment of onshore wind farms March 2017



- As required by the SNH guidelines, the entire 'flight risk volume/flight risk window' has been fully captured in the bird flight activity viewsheds for the Proposed Development, and as such the data interrogated through the CRM is robust and complete. Additionally also, it is important to highlight that the CRM calculation is based upon the proportion of time that a bird occupies the risk area (flight risk volume/flight risk window) and includes a correction factor to account for the area of the 500m boundary that was captured by the viewsheds – see Appendix A of Appendix 10.2-Collision Risk Model (CRM) of the EIAR which provides an example CRM calculation. As such the CRM method has an in-built process to account for viewshed coverage;
- The height band used in the CRM for the calculation of the 'flight risk volume/flight risk window', at 200m, is greater than the height of the candidate turbine, at 185m. As such the CRM has captured bird flights that are beyond the potential collision height of the turbines and as such is inherently precautionary;
- The 'flight risk volume/flight risk window' covers fully the "largest possible layout, all the alternative layouts and ancillary structures and works" as required by SNH guidelines.

The CRM has been prepared in accordance with the SNH best practice guidelines and is based on complete and accurate data which extends beyond the recommended 2 year survey period and covers the full flight risk volume/flight risk window.

Nocturnal Movement of Golden Plover

Many bird species exhibit nocturnal flight activity but since most surveys can only be undertaken during daylight hours, quantifying nocturnal flight activity cannot be done using real data. To overcome this when calculating collision risk for offshore wind farms, Band (2012a)³⁷ suggests referring to Garthe & Hüppop (2004)³⁸ who, when developing a vulnerability index for marine bird species in relation to offshore wind farms, classified the nocturnal flight activity of seabirds subjectively on a scale of 1 (hardly any nocturnal flight activity) to 5 (much nocturnal flight activity). Classification was completed using information from detailed handbooks/guides, 'field experience as well as personal observations'.

While 'there is considerable uncertainty about levels of bird flight activity by night' for most bird species due to a lack of surveys, Band (2012a) suggests it is possible to translate the Garthe & Hüppop (2004) rankings into levels of actual activity. These levels are, on the scale of 1 to 5, respectively, 0%, 25%, 50%, 75% and 100% of daytime activity. In the absence of any night-time survey data to use in the collision risk model calculations, obtaining expert opinion (Band, 2012a) and/or local information (Band, 2012b)³⁹ on the nocturnal flight activity of a species is a recommended method in which to enable classification of nocturnal flight activity of a species.

Using professional judgement in conjunction with the information outlined in the preceding paragraphs in relation to Band (2012a), Band (2012b), and Garthe & Hüppop (2004), nocturnal golden plover flight activity at the proposed Coumnagappul Wind Farm site was assigned a subjective ranking of 2.

³⁷ Band, B. (2012a). *Using a collision risk model to assess bird collision risks for offshore windfarms*. Report commissioned by The Crown Estate, through the British Trust for Ornithology, via its Strategic Ornithological Support Services (SOSS), Project SOSS-02. Available at: [Using a collision risk model to assess bird collision risks for offshore windfarms \(bto.org\)](#) Accessed: 20th March 2024.

³⁸ Garthe, S. and Hüppop, O. (2004). Scaling possible adverse effects of marine wind farms on seabirds: developing and applying a vulnerability index. *Journal of applied Ecology*, 41(4), pp.724-734.

³⁹ Band, B. (2012b). *Using a collision risk model to assess bird collision risks for offshore windfarms – with extended method: Worked example*. SOSS Report. The Crown Estate. Available at: [Microsoft Word - worked example - Feb 2012 with flight height \(bto.org\)](#) Accessed: 20th March 2024.



This ranking was then quantified according to Band (2012a) which produced a value for the hours of nocturnal golden plover flight activity equating to 25% of the night-time hours available to the species.

Therefore, when completing the collision risk model calculations for golden plover at the proposed Coumnagappul Wind Farm site, the hours of availability for golden plover 'was calculated to include hours of daylight, one hour before sunrise, one hour after sunset (dusk), and 25% of length of the night'.

Proposed fatality monitoring post-consent ornithology monitoring – and the assertion that monthly sampling is problematic and may underestimate casualties dramatically.

Chapter 10 – Ornithology of the EIAR proposes monthly fatality searches at the Proposed Development to quantify bird collision at the Site. The proposed monitoring is in accordance with best practice (Fijn et al., 2012 and Grunkorn, 2011) in terms of search area (minimum radius hub height of 81m) and monitoring interval (monthly). However, it is recognised within the EIAR that monitoring frequency may be altered in response to carcass removal trials, which will continue for the duration of fatality searches.

Additionally, the EIAR notes that the results of the post-construction monitoring programme will be submitted annually to the competent authority and NPWS and dependant on the results, the frequency of monitoring requirements will be agreed with NPWS. As a minimum monthly surveys will be conducted during years 1, 2, 3, 5, 10 and 15 post construction. The Applicant is happy to adopt more frequent monitoring as the Department sees fit in light of annual reporting.

Suitability of vantage point surveys for cryptic species such as woodcock, snipe and red grouse

In their submission, the Department discusses the suitability of surveys for nocturnal and/or cryptic species, such as woodcock, long-eared owl, snipe and red grouse. The Department states that they '*in the case of cryptic species such as woodcock, snipe and red grouse, vantage point surveys are not in the Department's view suitable methods of survey and cannot reflect the populations of these species accurately*'. The Department goes on to state that they '*would expect probability of some presence of woodcock on or adjoining the site but the surveys carried out did not detect any. It is of course possible no woodcock are present but in the absence of the appropriate survey this Department cannot know.... Similarly, we would not consider the geographically limited two nocturnal transects an adequate assessment or reflection of potential long-eared owl presence or absence*'.

There follows hereunder supporting information in relation to targeted surveys undertaken for nocturnal species in response to the Departments observations, outlined above. The appropriateness of bird transect routes and distribution and abundance survey area relative to representative habitats for species such as snipe and red grouse is discussed in the following section below.

In relation to nocturnal species such as woodcock and owls, surveys for such species require targeted surveys as they are harder to detect with traditional survey methods.

Targeted nocturnal surveys were undertaken within the site on 9th June and 16th July 2020. The survey methodology employed in relation to nocturnal surveys is described in Section 2.3.2.2. of the MWP Ornithology Report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR. The purpose of the nocturnal surveys was to determine presence/absence of key nocturnal species at the site, such as woodcock and long-eared owl, selected on the basis of the desktop study, which identified previous records for both species within the wider area.

The nocturnal survey transect route used in June and July 2020 was based on the provisional site layout under consideration at the time, and utilised an existing farm access track which runs through the centre of the site through the bottom of the valley providing clear views of the surrounding hillsides to either side. The nocturnal transect route used also passed directly by a minor block of forestry surrounded by open habitats located in the centre of the site, which comprised the main area of forestry encompassed within the site.



The nocturnal survey transect route therefore encompassed a variety of open and closed habitats, including forestry, farmland and heath, representative of the habitats that pertain in the wider site, and including potentially suitable habitat for both woodcock and long-eared owl to establish presence/absence of these species within the site.

A paper by Hoodless and Hirons (2007)⁴⁰ notes that woodcock require large woodlands containing a mosaic of clearings and rides, stands with relatively sparse, open ground cover, and areas with continuous ground cover or patches of dense shrubs and saplings. Fuller (1982), as cited in Hoodless and Hirons, 2007, notes that woodland sites of 10 hectares are rarely used. The area of forestry within the centre of the site adjacent to the existing farm track, surveyed as part of the 2020 nocturnal surveys, comprises potentially suitable habitat for breeding woodcock; however, was considered to be sub-optimal by virtue of its limited size, being approximately 4.5 hectares in area, and no woodcock were recorded during nocturnal surveys. The only other areas of forestry located within a 500 m radius of the turbine layout comprised minor sections at the edges of forestry blocks located 250 m and 340 m from Turbine 2 and Turbine 4, respectively.

In Ireland, University College Cork (UCC) Ornithology Group of the School of Biological, Earth and Environmental Sciences started a PhD project which aimed to coordinate a national census of breeding woodcock across Ireland in the absence of a national breeding woodcock survey. The project utilises a specialised survey method based on a UK method by Andrew Hoodless which counts the number of breeding (roding) flights by males during the breeding season to estimate the number of males present in an area⁴¹. To do this, three visits at dusk are recommended between May and end of June as roding behaviour is typically exhibited on a daily basis during this peak season, with each visit to be at least one week apart owing to the variability in roding activity between evenings (Hoodless *et al.* 2006)⁴². If no woodcock are recorded on the first two of these dusk visits, there is no need to make the third visit¹.

Completion of distribution and abundance surveys at the start of the 2020 breeding season was constrained by government-imposed restrictions as a result of the Covid-19 pandemic. This had a knock-on effect on the scheduling and resourcing of surveys. The resulting delay in the commencement of nocturnal surveys at the site resulted in the early part of the breeding season (May) being missed. However, the nocturnal survey visit undertaken in June 2020 was within the peak roding activity period and therefore the optimum survey window for breeding woodcock. Hoodless *et al.* (2006; 2009)⁴³ note that notwithstanding the peak roding period between May and June, woodcock typically rode from late February to mid-July, thus the second visit, undertaken in mid-July 2020, was also within the breeding window for this species. Therefore, in terms of timing of survey visits, both visits, undertaken in June and July 2020, fell within a suitable period within which male woodcock could have been expected to be active.

With regard to the duration of individual survey visits, as outlined in the DAU submission and as per the UCC methodology, surveys for breeding woodcock should commence 15 minutes before sunset and continue until one hour after sunset. The start and end times of both nocturnal surveys are set out in Appendix 11 of the MWP Ornithology Report in Appendix 10.1 of the Coumnaappul Wind Farm EIAR. A review of historical sunset times for the surveys undertaken on 09/06/20 and 16/07/20 determined that sunset was at 21:50 and 21:43 Hrs, respectively. The surveys commenced at 21:00 Hrs and 21:25 Hrs respectively and both continued for 3 hours.

⁴⁰ Hoodless, A and Hirons, G. (2007). Habitat selection and foraging behaviour of breeding Eurasian Woodcock *Scolopax rusticola*: a comparison between contrasting landscapes. IBIS, 149(2), pp. 234-249.

⁴¹ University College Cork Breeding Woodcock Survey <https://www.ucc.ie/en/ornithology/projects/woodcock-phd/step2/>

⁴² Hoodless, A., Lang, D., Fuller, R.J., Aebischer, N. & Ewald, J. (2006). Development of a survey method for breeding Woodcock and its application to assessing the status of the British population. In Ferrand, Y. (ed) Proc. 6th European Woodcock and Snipe Workshop, 48–54. Wageningen, The Netherlands: Wetlands International.

⁴³ Hoodless, A., Lang, D., Aebischer, N. J., Fuller, R. J., & Ewald, J. A. (2009). Densities and population estimates of breeding Eurasian Woodcock *Scolopax rusticola* in Britain in 2003, Bird Study, 56:1, 15-25.



Therefore, the nocturnal survey visits undertaken fully captured the recommended 75-minute sunset survey window for woodcock.

The nocturnal surveys undertaken in June and July 2020 were of suitable timing, duration and location to have indicated presence of breeding woodcock on-site. The 2020 surveys undertaken are considered to have been adequate to determine whether the site supported breeding woodcock.

Woodcock were not recorded during the targeted nocturnal surveys in 2020. Woodcock were not recorded during any other bird surveys undertaken over the course of the 3.5 year consecutive bird survey period. It is apparent from the survey results that the Proposed Development site does not comprise important habitat for breeding woodcock.

With regard to long-eared owl, SNH (2017) states that *'Survey methods have been published for owls (Hardey et al., 2009). Owls can be surveyed by listening for calling birds around dusk at appropriate times of year: early spring from February onwards'*. Hardey et al., (2009)⁴⁴ notes that *'A visit schedule is difficult to establish for this species because of the wide variation in laying dates'* and sets out the species annual cycle which supports this statement. For example, laying by long-eared owl peaks in early April but can occur anytime between late February and early June. Similarly, fledging of juveniles' peaks in early June but can take place anytime between late April and late July, with juveniles potentially dispersing as late as August. In light of this, Hardey et al., (2009) recommends visits between February and July to establish the occurrence of breeding.

The nocturnal survey visits undertaken in June and July 2020 fell within the breeding season for long-eared owl and as per Hardey et al., (2009) corresponded with the recommended visit schedule to check for young and count fledged young. The survey visits also corresponded to the timing outlined in SNH (2017) best-practice guidance which states that *'For owls, late evening survey for calling juveniles in May-July can also be useful in detecting successful pairs. Adults may also be active during this time'*.

Hardey et al., (2009) recommends visits for long-eared owl are conducted between dusk and 2 hours after sunset. The start and end times of both nocturnal surveys are set out in Appendix 11 of the MWP Ornithology Report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR. Both surveys commenced shortly before dusk (to capture the required timing for woodcock, as discussed above) and both continued for 3 hours post-dusk. Therefore, the nocturnal survey visits undertaken fully captured the recommended survey visit duration for long-eared owl.

The nocturnal surveys undertaken in June and July 2020 were of suitable timing, duration and location to have indicated presence of breeding long-eared owl on-site. The 2020 surveys undertaken are considered to have been adequate to determine whether the site supported breeding long-eared owl.

Long-eared owl were not recorded during the targeted nocturnal surveys in 2020. Long-eared owl was not recorded during any other bird surveys undertaken over the course of the 3.5-year consecutive bird survey period, apart from one incidental record in summer 2019 of a juvenile calling from forestry outside and to the south of the site, at a remove of 0.9 km from the nearest turbines (T10 and T11). It is apparent from the survey results that the Proposed Development site does not comprise important habitat for breeding long-eared owl.

⁴⁴ Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B., & Thompson, D. (2009). Raptors: a field guide for surveys and monitoring. The Stationary Office.



Appropriateness of bird transect routes and distribution and abundance survey area relative to representative habitats

With regard to cryptic species such as snipe and red grouse, the Department notes that VP surveys are not suitable methods of survey and cannot accurately reflect species populations. The Department states that, in relation to VP surveys *'that is not to say that they cannot occasionally record such species such as they did for red grouse and snipe, but they could equally miss significant presence of these species. Transects or species-specific techniques are a more suitable way to survey for these species and the Department notes that some transects were carried out; however, these were limited in application and extent with a greatly disproportionate extent of them in conifer forestry and along the existing roadway through the site and very little through the core heath and wet grassland parts of the site where more suitable habitat occurs and where most development is proposed'*.

The distribution and abundance surveys undertaken at the Proposed Development site comprised a combination of general transect surveys undertaken to assess general breeding and wintering bird distribution within the site, and targeted walkovers of upland habitats to determine presence/absence of upland breeding species including red grouse and snipe.

As outlined in Section 2.3.2.1 of the MWP Ornithology Report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR, the general transect surveys comprised surveys along defined route within and outside the core survey area, based on the methodology of Bibby *et al* (2000). All bird species seen or heard, typically within 100 m of the transect route, were recorded, although the topography of the landscape often allowed for the detection of birds at greater distances.

General transect surveys were undertaken in both summer and winter seasons between summer 2019 and end of summer 2022. A total of 29 monthly transect surveys (comprising 16 summer and 13 winter transects) were undertaken over the course of the 3.5-year bird survey period (April 2019 to September 2022, inclusive). The survey methodology employed in relation to general transect surveys is fully described in Section 2.3.2.1. of the MWP Ornithology Report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR.

The 2019 and 2020 summer and winter transects utilised Transect Route 1 which was located in the middle of the central valley within the site and passed through/by a variety of habitats, including areas of wet heath and wet grassland, and with areas of dry silicious heath within approximately 100 m of the transect route at its southern end. These heath and/or wet grassland habitats comprise suitable habitats for species such as snipe and red grouse, as identified by the Department in their submission.

The 2021 and 2022 summer and winter transects (Transect 2 to 4) expanded the extent of site coverage in line with an evolving site layout and encompassed a variety of both open and closed habitats in the north-west corner of the site. While Transect 2 to 4 were primarily located in forestry, they also encompassed wet grassland and considerable areas of wet heath, in particular at their eastern extents, where Transects 2 to 4 all extend eastwards onto expansive wet heath associated with the environs of Turbine 1 and Turbine 4. This can be seen in Figure 7 of Section 2.3.2.1 of the MWP Ornithology report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR and with reference to the habitat map produced by FTC (refer to Figure 9.5 of Appendix IV of the Coumnagappul Wind Farm EIAR).

In addition to the general transect surveys discussed above, targeted walkover surveys for upland breeding species including snipe and red grouse were carried out in early June and early to mid-July 2020 and 2022. The survey methodology employed is fully described in Section 2.3.2.2. of the MWP Ornithology report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR.



The targeted walkover route used was selected on the basis of the availability of potentially suitable habitat for species such as red grouse and snipe, and other upland breeding species and was informed by the provisional site layout. The route selected encompassed extensive areas of wet heath, wet grassland and dry silicious heath in the northern half of the site, as can be seen in Figure 4 of Appendix 3 of the MWP Ornithology report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR with reference to the habitat map produced by FTC (refer to Figure 9.5 of Appendix IV of the Coumnagappul Wind Farm EIAR). Selection of the route and the extent of site coverage for this survey was constrained by extensive upland burning to which parts of the site were subjected on an annual basis during the survey period and which is an on-going, regular activity at the site. Burning activity rendered large areas of otherwise suitable habitat for red grouse, snipe and other species as unsuitable, at least in the short-term following burning activity. Professional judgement was therefore used by the surveyors to select a targeted walkover route which encompassed sufficient areas of potentially suitable habitat for these species, comprising heath and wet grassland, considered to be representative of the wider site.

With regard to the appropriateness of bird transect routes and distribution and abundance survey area relative to representative habitats, the following table outlines the habitat types which were covered by the various general transects and targeted walkover route utilised. The percentage of each route which travelled through heath and wet grassland habitats considered suitable to support red grouse and/or snipe is also included by way of supporting information to show that considerable portions of the routes utilised did in fact encompass suitable habitat for these species. Transect routes are shown in Figure 7 of Section 2.3.2.1 of the MWP Ornithology Report in Appendix 10.1 of the Coumnagappul Wind Farm EIAR.

Table 6-2: Overview of representative habitat types covered by distribution and abundance surveys (general transects and targeted walkovers for upland breeding species)

Survey Location	Total Length (km)	Relevant Habitats	Percentage of route occurring within heath and wet grassland habitats
Transect 1	1.91	Wet grassland, improved agricultural grassland, wet heath, scrub and conifer plantation	71 %
Transect 2	1.68	Improved agricultural grassland, conifer plantation, scrub, wet heath	27 %
Transect 3	1.44	Improved agricultural grassland, scrub, conifer plantation, wet heath	21 %
Transect 4	1.9	Wet heath, scrub, improved agricultural grassland, wet grassland	52 %
Targeted Walkover Survey	4.73	Wet heath, wet grassland and dry silicious heath	95 %
Total	11.66		

It has been shown that the general transects and targeted walkover surveys for upland breeding birds undertaken encompassed a variety of habitats representative of the mix of both open and closed habitats occurring within the site, including heath, which accounts for the habitat of the majority of turbine locations.

In terms of distribution and abundance surveys, results for snipe and red grouse were virtually absent. There was one record of snipe during the general monthly transect surveys. This record comprised four snipe recorded during Transect 1 in February 2021 and was the only record of snipe recorded during the 29 monthly transect surveys (comprising 16 summer and 13 winter transects) undertaken over the course of the 3.5-year bird survey period (April 2019 to September 2022, inclusive). Snipe were not recorded during targeted walkover surveys of extensive areas of heath and wet grassland habitat in either 2020 or 2022.



As referred to by the Department in their submission, low levels of snipe activity were detected during VP surveys over the 3.5-year bird survey period. Breeding season transects and targeted walkover surveys overlapped with the timing of at least the later survey visit (mid-May to late June period) as set out in Brown & Shepherd (1993), and both the early and late survey visits in the case of the 2020 and 2022 breeding season transects; therefore, given the timing and suitability of the habitats surveyed, surveys undertaken could have reasonably been expected to detect breeding snipe, if present.

Red grouse were not recorded at any stage during any distribution and abundance surveys, comprising general transect surveys (29 monthly transect surveys) and targeted walkover surveys of extensive areas of heath habitat in 2020 or 2022. As referred to by the Department in their submission, there were two incidental records of red grouse heard calling during VP surveys undertaken over the 3.5-year bird survey period. A data request to NPWS was submitted on 23rd January 2023 to request the most recent National Red Grouse Survey 2021/2022 report to help inform the site baseline. While this was not available from NPWS at the time the ornithology report was being written, this is not considered to have influenced the capture of baseline information with regard to red grouse at the site. Given the extent of distribution and abundance surveys undertaken and the suitability of the habitats surveyed, the surveys could have reasonably been expected to detect red grouse, if present.

The distribution and abundance surveys undertaken over the 3.5-year bird survey period were of suitable timing and location to have indicated presence of snipe and red grouse on-site. The surveys undertaken are considered to have been adequate to determine whether the site supports any significant populations of these species. It is apparent from the survey results that the Proposed Development site does not comprise important habitat for breeding snipe and red grouse.

The hinterland survey undertaken in 2020 targeted presence/absence of raptors within a 2 km radius surrounding the northern part of the site encompassing a mix of lowland farmland and more upland heath and afforested habitats which were considered to be representative of the overall site. All roads within this area were driven and suitable habitats surveyed from appropriate vantage points.

In conclusion, the suite of distribution and abundance surveys undertaken at the site across the 3.5-year survey period are considered to have adequately captured the avian baseline ecology of the Proposed Development site during the survey period so as to inform a robust assessment of the development.

Net loss of habitat “linked” to the Comeragh Mountains SAC

Please see response to Issue 1 and Issue raised by the Department.

Issue 4: Archaeology

The DAU recommended a number of requirements which would form a condition in the event of a grant of permission.

Response:

The content of this part of the submission are noted and the Applicant would welcome a condition(s) to this effect.

6.1.3 Fáilte Ireland

In their submission Fáilte Ireland raised a number of observations in respect of the proposed development, particularly in relation to the potential impacts of the proposed development upon tourism.



Fáilte Ireland also provide context of the application site from the point of view of tourism in the vicinity of the site as well as the wider area.

The primary concerns raised by Fáilte Ireland relate to the findings of the Landscape and Visual Impact Assessment carried out in respect of the proposed development and included in the EIAR submitted with the application.

Response:

Please refer to Section 5 of this response document.

6.1.4 Waterford City and County Council

Issue 1: Planning Policy including LVIA

In their submission Waterford City and County Council noted that the wind energy designation map contained within the updated Renewable Energy Strategy forming Appendix 7 of the Waterford City and County Development Plan 2022 – 2028 designates the Proposed Development lands as ‘No Go Area/ Exclusion Area’ where wind development is not supported in principle.

It was also noted that the Proposed Development is located in an area which is designed at “Most Sensitive” in the Landscape and Seascape Character Assessment was prepared for Waterford City and County in 2020. As such, it has been determined by the Planning Authority that this area is characterised by very distinctive features with a very low capacity to absorb new development without significant alterations of existing character over an extended area.

Response:

Please refer to Section 4 and Section 5 of this response document.

Issue 2: Natural and Cultural Heritage

In their submission Waterford City and County Council highlighted that the policies and objectives of the planning authority in relation to the protection of our archaeological heritage are set out at section 11.17 of the current Waterford City and County Development Plan 2022-2028, and noted that there are Record of Monuments and Places which are included within, or which lie in close proximity to, the subject site.

Waterford City and County Council noted Natura 2000 sites in the locality of the Proposed Development including those within the same waterbody catchments, noting the presence of Blue Dot watercourses.

Response:

For clarity, there are no Record of Monuments and Places within the Proposed Development Site. The Archaeological Survey of Ireland has classified the two recorded archaeological sites (WA014-042---- & WA014-044----) located within the Site boundary as ‘redundant records’ as they have concluded that neither are archaeological in origin. The wind farm layout was informed by the archaeological desktop studies and fieldwork and was designed to avoid the locations of all known or potential archaeological monuments and other identified cultural heritage constraints within the Site and its environs. The EIAR has concluded no potential for significant effect on archaeology.

In relation to natural heritage and hydrology/ water quality, we would refer to our response to An Taisce and to the Development Applications Unit.



Issue 3: Traffic and Transport

The Council raised concerns about the carrying capacity and safety of the local road network serving the proposed development and the adequacy of the local road network to accommodate heavy construction traffic associated with the proposed development. Further concerns exist regarding the undergrounding of the grid connection with both direct impacts on the construction of the road network and long terms maintenance and upgrades to the road network.

Response:

The Applicant disagrees with the opinion that the Proposed Development would have a *significant adverse impact* on road users and road condition for reasons described herein and would refer to the mitigation measures contained within Chapter 14 of the EIAR and Traffic management Plan under Appendix A of the Construction Environmental Management Plan (CEMP).

Safety of Road Users

The Proposed Development will not endanger public safety by reason of traffic hazards. The use of local rural roads for the construction of wind farms is a common feature throughout the Country, and through the introduction of focused mitigation measures, the safety of road users can be protected and temporary inconveniences minimised whilst also facilitating the development of renewable energy infrastructure.

The key central mitigation against the endangerment of public safety is an adequately designed Traffic Management Plan (TMP). Construction traffic will require regular access to the site at varying times throughout the construction phase.

The purpose of the TMP is to put in place procedures to manage traffic effectively on site and in the immediate vicinity of the proposed project, to ensure the continued movement of traffic on the public roads and to minimise disturbance during transportation of materials particularly oversized loads.

The correct implementation of the TMP will ensure that appropriate procedures are in place to minimise any effects on the safety and movement of the general public.

As described in the EIAR, the TMP shall be finalised following the appointment of the contractor for the main construction works and the turbine supply contract.

The contractor will liaise directly with the County Council in relation to the plan and any concerns/requirements they have will be incorporated into the plan. The contractor will also liaise with other local authorities, as necessary, along the turbine delivery route. The necessary permits (including standard permits) will be applied for and obtained from the relevant local authorities. The TMP requires that all necessary temporary traffic management will be planned and executed in accordance with best practice, including Chapter 8 of the Traffic Signs Manual as published by the NRA/Department of Transport.

Coumnagappul Wind Farm will have one main site entrance, which will be used for both construction and operation as an access point from the public road. The location of the access point is shown on the haul route in Figure 14.2 of the EIAR. The existing geometry and sightlines from these entrances were assessed in February 2022, with existing visibility presented in Table 14-4 of Chapter 14. The access point has been selected considering the safety of public road users and construction staff and ensuring they can be constructed to comply with the Waterford County Council and TII design requirements for direct accesses.

The entrance is an existing entrance to Coillte forestry located on an undesignated local road. The general local road speed limit applies of 80kph. The minimum sight distance for an 80kph road is 160m, in line with Transport Infrastructure Ireland (TII) standards (TII Publication DN-GEO-03060).



As described in the EIAR, a dedicated Traffic Management Coordinator will be appointed for the project and shall be responsible for maintaining regular contact with An Garda Síochána, the local County Council, the statutory bodies and the client concerning traffic control, interference with services and co-ordination of crossings. The Transport Officer will contact the relevant bodies in relation to method statements prior to the work taking place. The Traffic Management Coordinator will be responsible for ensuring that the Traffic Management Plan will be implemented in full.

There will be an objective to maintain the strategic capacity and safety of the N29, N25 and N72 carriageways at all times, cognisant of the National Development Plan, 2021 – 2030, with key sectoral priorities for maintaining the N25 and N72 national road network to a robust and safe standard for users.

The detailed design will be carried out with full stakeholder engagement, and all concerns that may arise will be eliminated through this process, this includes for the accommodation of farming activities which could be impacted. The TMP specifies that subject to agreement with the planning authority, a letter drop will be carried out to notify members of the public living near the proposed site/route/roadworks where necessary, to advise them of any particularly significant upcoming traffic related matters e.g. temporary lane/road closure (if required) or delivery of turbine components at night.

Road width and capacity

The Applicant commits to and demonstrates that all HGV construction traffic can be adequately facilitated from the roads as identified within Chapter 14 of the accompanying EIAR without any increased adverse impact on that local road network. Road width and capacity are considered in the EIAR the context of:

1. The safe passing of a car and a tipper truck which represents the most common form of HGV associated with the construction stage;
2. The safe passing of two tipper trucks;
3. The safe passing of cars with longer HGVs such as articulated lorries.

Scenario 1 (car and tipper) is by far the most likely scenario that may occur along the local road that is to be used as access to the main site entrance due to the expected frequency of HGV's leaving the Site. It should be noted that this road is already used by HGV's associated with agriculture and commercial forestry activities so the above scenarios are already in existence. However, the Proposed Development will generate greater potential for such instances which will need to be adequately managed. To that end, the EIAR identifies passing bay opportunities to accommodate the passing of 2 no. large tipper trucks along the local road L-5119 to the undesignated local road at the wind farm site entrance (see Figure 6.2, extracted from Appendix 2.1 Construction Environmental Management Plan of the EIAR).



Figure 6-3: Passing Opportunity Locations

In addition to the passing opportunities identified, it is also proposed by the applicant to address any potential issues associated with HGV's movements that a dedicated competent Traffic Management Coordinator will be appointed for the duration of the project, and that the entrance will be controlled by flagmen to assist traffic movements. The exact positioning of personnel and signage shall be carried out in consultation with Waterford City and County Council Roads Department.

It is submitted that the regional and national roads are adequate to facilitate the construction of the Proposed Development to allow cars and HGV's meeting head-on to pass one another safely.

Abnormal Sized Loads

The proposed turbine delivery route is presented in Figure 2.3, Volume IV. A Delivery Route Selection and Assessment / Route Survey Report (RSR) was conducted to identify the optimum delivery route to the site and is presented in Appendix 2.2, Volume III of this EIAR.

The Route Survey Report (RSR) identifies the key issues associated with AIL deliveries. It identifies remedial works, either in the form of physical works, vehicle modifications or traffic management interventions, that will be required to accommodate the predicted loads.

The accommodation works within the public road corridor will be carried out in advance of the turbine deliveries in agreement with the local authority and subject to a road opening license.

As detailed in the EIAR, the delivery of turbine components, including blades, tower sections, and nacelles, is a specialist transport operation with the transport components often carried out during off-peak or night periods when traffic is at its lightest. This is carried out in consultation with the Roads Authorities and An Garda Síochána Traffic Corp, with special permits generally required. With the assistance of An Garda Síochána Traffic Corp and with permits in place, the delivery of turbine components to site will not endanger public safety by reason of a traffic hazard.



Turbine blades can be carried on a hybrid trailer to reduce the need for mitigation in constrained sections of the route. Where constraints are significant, it is possible to raise the scissor lift to a maximum of 10m in height. This allows loads to be either lifted over height constraints and to reduce the overall swept path of the delivery vehicle.

Volume and Frequency of HGV Traffic Proposed along Haul Routes

As with any construction development project, the transport of materials onto the site will give rise to increased traffic and associated impacts. However due to the very nature of construction these impacts will be temporary.

Additionally, a key design feature of the Coumnagappul Wind farm is that all structural fill for access tracks, turbine hardstands, turbine foundations and on-site substation will be sourced from the onsite borrow pit instead of local quarries and will reduce the impact on the local road network. This assumes all Clause 804 material for surface courses of roads, foundations, hardstands, etc., will be transported from externally licensed quarries. The surrounding quarries currently in operation and indicative haul routes to the site have been identified. This is described in Section 14.4.2.4. The closest external quarry to the site is the Roadstone Quarry in Cappagh, Co. Waterford, located approximately 22km (SW) from the wind farm site.

The construction phase traffic generated by the Proposed Development on the surrounding road network has been calculated by estimating the number of vehicles required for each phase of the project (construction, operation and decommissioning). The number of vehicles is then converted to the equivalent two-way trips, whereby every vehicle will generate two trips, one to and one from the site. A construction period of 18 - 24 months is expected based on the nature and scale of the proposed works. In order to assess for worst case in terms traffic volumes per day, an 18-month construction programme has been assumed.

This results in an average of 195 HGV trips per day during the peak construction works (which occurs in month 6 of the programme for HGV traffic). It is estimated that the construction phase for the main wind farm site will lead to 14,995 additional HGV trips (two-way) over the duration of the construction works : an average daily increase of 30 HGV trips.

An average workforce of 25 persons is anticipated, increasing to 40 persons during peak periods. This is calculated to give rise to an average daily increase of 38 LGV trips per day over a construction period of 24 months. The peak months for LGV trips occurs in months 7 to 12 inclusive where average daily LGV trips rise to 50.

The combined HGV and LGV average daily increase for the wind farm site excluding grid connection works is 68 trips per day throughout the construction programme.

The works will result in a less than 1% temporary increase in traffic volumes on the N25 and approximately a 1.3% increase in traffic volumes on the N72. The R672 and unclassified local roads near Seapark (main access to the Site), Knockarana, and Ballyconnery will see a more significant temporary increase in traffic volumes over the course of the construction phase of ca. 2.05%, 214%, 66% and 77% respectively.

The EIA concludes that negative or adverse effects on the receiving environment associated with the construction works at the main wind farm site are considered to be short-term in duration and moderate in significance without appropriate mitigation, which reduce to short-term in duration and slight in significance following mitigation in the form of a Traffic Management Plan.

It is not unusual for wind farm developments by nature of their location to utilise narrow country roads for construction access and for such impacts to be considered temporary in nature and therefore not significant.



Road Network Existing Condition

The EIAR submitted with the planning application sets out a number of commitments to ensure that the condition of the local road network will be returned to Waterford County Council in the same, if not in better condition, post-construction activity.

The Traffic management Plan includes the following general mitigation measures:

- Road Pre-and Post-Construction Condition Survey - A pre-condition survey will be carried out on all public roads that will be used in connection with the works to record the condition of the road before the works commence. A post construction survey will also be carried out after the works are completed. The specification and timing of the surveys will be agreed with the roads authority. Joint surveys shall be undertaken if the roads authority so requires/agrees.
- Road Reinstatement – As agreed with Waterford City and County Council, all roads will, upon completion of the construction works, be expeditiously reinstated to their pre-works condition or better and to the satisfaction of the relevant roads authority. If, during the course of the construction works, some of the roads used in connection with the development are damaged then these roads will be made good to the satisfaction of the roads authority without delay.

The development will be constructed to ensure that all temporary/permanent works within the road curtilage of the national roads (N29, N25, N72) will be as per the Purple Book (Guidelines for Managing Openings in Public Roads, 2017). If any damage to existing footpaths or cycle lanes occurs during the delivery of components, these sections will be replaced by the awarded civils contractor as per The Purple Book (Guidelines for Managing Openings in Public Roads 2017 (SD12 Footways: Concrete Permanent Reinstatement).

Conclusion

The above clearly demonstrates that the local road network is sufficient in width and capacity to accommodate the delivery of turbines to Site and to accommodate the relatively predicted levels of HGV movements to Site during the construction process. Inconveniences to local road users will be minimised through the identified locations along the haul route where opportunities exist for local cars and or HGV's to pass safely where road widths are narrow.

In addition, the applicant commits to additional controlling measures by providing 'flagmen' at strategic locations along the route so that inconveniences caused to local road users where two HGV's meet can be controlled and minimised.

It is submitted that with the controlling measures in place as outlined in the EIAR the Proposed Development will not endanger public safety by reason of traffic hazard. Notwithstanding, the Applicant would be happy to accommodate any additional measures as the Board see fit in order to address any concerns related to road surface condition or safety.

Third Party Core Issues

6.1.5 Policy

Response:

Please refer to Section 4.1 to 5.7 of this response document.

6.1.6 Human Health and Wellbeing



Issue 1: Health and Wellbeing

Several Third Party submissions raised concerns pertaining to health impacts from turbines and noted there have been anecdotal reports of adverse health effects on people who live close to wind turbines.

Response:

There is currently no published scientific evidence to link wind turbines positively to adverse health effects. Research has been carried out internationally and by esteemed organisations such as the World Health Organisation (2018)⁴⁵ and the HSE (2017)⁴⁶. Studies have shown that exposure to wind farms and the noise from wind farms does not trigger health effects. From an Irish context, the HSE (2017) Position Paper on wind turbines and public health was published to address the rise in wind farm development and concerns regarding potential impacts on public health.

The paper discusses previous observations and case studies describing a broad range of health effects associated with wind turbine noise and shadow flicker. The HSE position paper determines that current scientific evidence on the adverse impacts of wind farms on human health is weak or absent. Further research and investigative processes are required at a larger scale to be more informative for identifying potential health effects of exposure to wind turbine effects. The paper concludes by outlining the following statements:

'There is no direct evidence that considered possible effects on health of infrasound or low frequency noise from wind farms;'

'The risk of shadow flicker from wind farms triggering a seizure among people with this condition is estimated to be extremely low;'

It should be noted that the Proposed Development complies with the current 2006 Wind Energy Guidelines and the Draft 2019 Wind Energy Guidelines of a 4x tip height set back (in this case 740m) from the nearest residential dwelling (with the nearest dwelling being located beyond the recommended setback at 820m away).

Issue 2: Shadow Flicker

A number of Third Party submissions raised various perceived issues with the proposed wind turbines, in particular the shadow flicker impact of these. Third Parties considered that the shadow flicker from turbines might cause the following human health issues:

- A negative effect on locals' mental health.
- Disruption, leading to health complications.
- Effect the wellbeing of those with mental health issues, autism and epilepsy.

Response:

A Shadow Flicker Assessment has been conducted and is included in Chapter 13 of the accompanying EIAR which has determined that:

"Based on the Wind Energy Development Guidelines 2006 (WEDG 2006) thresholds, the predicted 'Maximum Theoretical Hours Per Day' of shadow flicker exceeds 30 minutes at 8 receptors.

⁴⁵ WHO Guideline Development Group, 2018. *Environmental Noise Guidelines for the European Region*, Copenhagen: WHO Regional Office for Europe.

⁴⁶ Health Service Executive & HSE Public Health Medicine Environment and Health Group, 2017. *Position paper on wind turbines and public health*. [online] www.lenus.ie



When considering the 'Total Theoretical Hours Per Year', 9 receptors are predicted to exceed the WEDG 2006 threshold of more than 30 hours per year. However, when accounting for a more 'likely' scenario, where the average annual sunshine hours are taken into account, no receptors are predicted to exceed more than 30 hours per year".

The Applicant is committed to minimising the potential for shadow flicker to occur and the shadow flicker assessment will inform the Shadow Flicker Control Measures that will be designed for each turbine.

The Applicant will install a shadow flicker impact control system at turbines no. 1, 2 and 11 which have the potential to cause shadow flicker on nearby properties. This system will be installed prior to operation of turbines.

A shadow flicker control system consists of a number of control modules with associated light sensors, clock and timer, and specialised software. The calculated shadow flicker periods will be input into the turbine control software and when the correct conditions are met i.e. the light intensity is sufficient, during a potential period of shadow flicker, individual turbines will cease operation until the conditions for shadow flicker are no longer present. The actual light level that would trigger a turbine shut down will be manually configured to reflect local conditions. Shadow flicker control modules will be used to ensure that a near zero level of shadow flicker is achieved, allowing for the reaction time of the shadow flicker control modules and also allowing for a short period of time for the turbine blades to slow down to a stop.

Issue 3: Noise

The proposed wind turbines have prompted concerns from third-party submissions regarding the potential negative impact of turbine noise on the local community's mental health. Submissions argue that the noise generated by the turbines during the operation and construction phases may disrupt daily activities and have wider health implications.

Response:

In terms of the perceived effects of Noise pollution, a Noise Impact Assessment has been conducted and is included in Chapter 8 of the accompanying EIAR. The Counnagappul Wind Farm has adhered to the Wind Energy Guidelines 2006, with the noise levels being in line with the guidelines; this is outlined in Chapter 8 of the EIAR, wherein states:

The operational wind farm noise levels meet the daytime and night-time noise limits derived using the Wind Energy Development Guidelines 2006.

Noise predictions were performed for the 10-wind turbine layout using the highest noise levels at each wind speed, for the proposed turbine models have been selected. These predicted noise levels are for a worst-case scenario with noise sensitive receptors downwind of the Proposed Development. The operational wind farm noise levels meet the daytime and night-time noise limits derived using the Wind Energy Development Guidelines 2006.

There will be a slight increase in noise during the construction and decommissioning phase. Construction and decommissioning on-site activities with a duration longer than one month will be below the construction noise limit of 65 dB $L_{Aeq,1hr}$ at residential dwellings. Therefore, the effect of decommissioning and construction works is temporary and ranges from not significant to slight effect.



Issue 4: Property Valuation

Property in proximity to the proposed Coumnagappul Wind Farm will be devalued if the project goes ahead.

Response:

It is a reasonable assumption based on the available international literature, that overall on balance the provision of a wind farm at the proposed location would not impact on the property values in the area in the long term.

Within the UK, studies show that operational wind farm developments reduce prices in locations where the turbines are visible relative to where they are not visible and that the effects are causal. This price reduction is around 5–6% on average for housing with a visible wind farm within 2 km, falling to under 2% between 2 and 4 km, and to near zero between 8 and 14 km, which is at the limit of likely visibility (Gibbons, 2015)⁴⁷. Similarly studies from Europe generally find that close proximity to wind turbines has a negative effect on home values with home values falling by approximately 5–10% for homes located within 2 km (~1.2 miles) of a wind turbine. Within the U.S. context, the evidence is mixed but the majority of studies find insignificant effects of wind turbines on home values (see reviews Brinkley and Leach, 2019⁴⁸; Rand and Hoen, 2017⁴⁹, Parsons and Heintzelman, 2022⁵⁰).

A number of studies have found evidence of negative anticipatory effects on housing values, which begin after the announcement of the wind project rather than manifesting when construction begins (e.g., Dröes and Koster, 2016⁵¹; Jarvis, 2021⁵²; Dong et al., 2023⁵³). Furthermore, some studies find that post-project construction, housing values rebound to levels existing prior to the project's announcement (Dong, et al., 2023). Studies show that homes located within one mile of a commercial wind turbine experience, on average, approximately an 11% decline in value following the announcement of a new commercial wind energy project, relative to counterfactual homes located 3 to 5 miles away.

Gillespie, 2023⁵⁴, a recent Irish study concentrated in the west of Ireland, notes a reduction in the value of properties located within 1 km of wind turbines with no significant reduction in house price beyond 1km. The study also determined “that effects attenuate over time, becoming insignificant beyond 10 years post-connection”.

⁴⁷ Gibbons, S., 2015. Gone with the wind: Valuing the visual impacts of wind turbines through house prices. *Journal of Environmental Economics and Management*, Volume 72, pp. 177-196.

⁴⁸ Brinkley, C. & Leach, A., 2019. Energy next door: a meta-analysis of energy infrastructure impact on housing value. *Energy Research & Social Science*, Volume 50, pp. 51-65.

⁴⁹ Rand, J. & Hoen, B., 2017. Thirty years of North American wind energy acceptance research: What have we learned?. *Energy Research & Social Science*, Volume 29, pp. 135-148.

⁵⁰ Parsons, G. & Heintzelman, M. D., 2022. The Effect of Wind Power Projects on Property Values: A Decade (2011–2021) of Hedonic Price Analysis. *International Review of Environmental and Resource Economics*, 16(1), pp. 93-170.

⁵¹ Dröes, M. I. & Koster, H. R., 2016. Renewable energy and negative externalities: The effect of wind turbines on house prices. *Journal of Urban Economics*, Volume 96, pp. 121-141.

⁵² Jarvis, S., 2021. *The Economic Costs of NIMBYism: Evidence from Renewable Energy Projects*, London: London School of Economics .

⁵³ Dong, L., Gaur, V. & Lang, C., 2023. Property value impacts of onshore wind energy in New England: The importance of spatial heterogeneity and temporal dynamics. *Energy Policy*, 179(113643).

⁵⁴ Gillespie T, McHale P (2023) Wind Turbines and House Prices Along the West of Ireland: A Hedonic Pricing Approach, Centre for Economic Research on Inclusivity and Sustainability (CERIS) Working Paper Series, 2023/01.



This impact is dynamic —it is largely driven by declines in sale prices following the announcement and during the construction of a wind project. Once a wind project becomes operational, home prices tend to rise with property value impacts becoming small and statistically insignificant 9 years or more after the announcement of the project (about 5 years after project operation) (Brunner, et al., 2024)⁵⁵.

In conclusion, property valuation is dynamic with varying factors that cannot be solely based on the proximity of renewable infrastructure. From studies, it is clear that once the wind farm development is operational property prices tend to acclimate.

Issue 5: Kilbrien National School

It was noted that Kilbrien National School was not included in Table 3-2 of the Traffic Management Plan which lists the schools within the vicinity of the Proposed Development.

Response:

The potential for effects on the Kilbrien National School has been fully assessed in the EIAR notwithstanding its omission in error from Table 3-2 of the Traffic Management Plan (TMP):

- The school is located beyond the zone of influence of shadow flicker (10 times the rotor diameter) as defined in Chapter 13 of the EIAR and as such there is no potential for effects from shadow flicker.
- The school is located beyond the 35dB L_{A90} study area for noise effects as presented in Chapter 8 of the EIAR and as such there is no potential for noise effects.
- The landscape and visual effects of the Proposed Development include a view point location near Kilbrien national School, with the school clearly visible in the foreground of photomontage imagery for VP23. The visual receptor sensitivity at this location has been classified as 'High-medium', with a significance rating of Moderate-slight / Negative / Long Term.
- In Chapter 6 - Population and Human Health it is noted that "The closest Schools in proximity to the Site is Kilbrien National School which is located 3.6km to the south". The potential effects on schools is addressed under the title of 'Recreation, Amenity and Tourism' within the EIAR.

Specific to the traffic management plan, it is of note that the TMP included in the EIAR is a preliminary plan. A detailed project-specific TMP will be prepared by the Developer which, as per the mitigation prescribed in Chapter 14 of the EIAR, must be agreed with the road's authority and An Garda Síochána prior to commencing construction. Additionally, the road works associated with the grid connection cabling will be completed in line with the requirements of a road opening license as agreed with the local authority.

A road opening licence can only be granted in accordance with the Department of Transport Purple Book⁵⁶ "where it is proposed to carry out roadworks adjacent to schools, colleges, libraries, hospitals, hotels or other publicly-accessed buildings, additional timing restrictions may also be applied". It is of note however that no works are proposed near the school.

⁵⁵ Brunner, E. J., Hoen, B., Rand, J. & Schwegman, D., 2024. Commercial wind turbines and residential home values: New evidence from the universe of land-based wind projects in the United States. Energy Policy, 185(113837).

⁵⁶ Department of Transport (2017) Guidelines for Managing Openings in Public Roads: Guidelines for the Opening, Backfilling and Reinstatement of Openings in Public Roads



6.1.7 Ecology and Appropriate Assessment

Issue 1: Proximity of the Proposed Development to the Comeragh Mountains SAC

This development is 0.76 km from the Comeragh Mountains SAC (001952)

Response:

Please refer to Section 6.1 of this response document.

Issue 2: The Natura Impact Statement does not address birds which are known to use the Comeragh Mountains SAC

It was noted that bird species listed on Annex I of the EU Birds Directive breeds within the Comeragh Mountains however these bird species are not mentioned in the Report for AA Screening and Natura Impact Statement.

Response:

The legal basis on which European Sites are selected and designated is the EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

Ireland is required under the terms of the EU Birds Directive (2009/147/EC) to designate Special Protection Areas (SPAs) for the protection of:

- Listed rare and vulnerable species
- Regularly occurring migratory species
- Wetlands especially those of international importance

A programme to identify and designate SPA⁵⁷ sites has been in place since 1985, with the most recent designation having been made by the Minister in January 2024: the Seas off Wexford Special Protection Area. The Comeragh Mountains has not been identified as a Special Protection Area for birds since the programme for designation has been in place and is not designated for the protection of Annex I birds of the EU Birds Directive.

The Comeragh Mountains are designated as a Special Area of Conservation (SAC). The Directive lists certain habitats and species that must be protected within SACs. In relation to species, there are 25 Irish species which must be afforded protection within SACs and include *inter alia* Salmon, Otter, Freshwater Pearl Mussel, Bottlenose Dolphin and Killarney Fern. No bird species are included in relation to species which must be protected. Comeragh Mountains is protected for one species only: *Hamatocaulis vernicosus*, a species of moss. The full suite of qualifying interests and associated conservation objectives for the SAC are set out in the NPWS (2021) Conservation Objectives: Comeragh Mountains SAC 001952. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

⁵⁷ Refer to <https://www.npws.ie/maps-and-data/designated-site-data/sac-and-spa-datasheets-downloads> for details of the dates of publication of the Statutory Instruments designating the sites.



The Habitats Directive explicitly refers to the 'site's conservation objectives' as a basis for applying Article 6(3) relating to Appropriate Assessment. The CJEU, in its judgment in Case C-849/19, *Commission v Greece*, the Court held in Paragraph 51 that it is in the light of the conservation objectives that the scope of the obligation to carry out an appropriate assessment of the effects of a plan or a project on a protected site should be determined. In other words, the decision as to whether the plan or project is likely to have significant impact on a European site must be taken in view of the site's conservation objectives. The Comeragh Mountains SAC does not include any conservation objectives in relation to birds.

Please refer to Section 6.1 of this response document which confirms the Source-pathway-Receptor approach that was adopted in the report to support Screening for Appropriate Assessment which was submitted in support of the planning application, which confirms no likelihood of significance effects on the Comeragh Mountains SAC in light of the site's conservation objectives.

It is noted that the potential for effects on birds, including those listed in Annex I of the Birds Directive is assessed in detail in Chapter 10 – Ornithology of the EIAR.

Issue 3: Effects on Ornithology

The Comeragh Mountains and environs are noted as providing habitat to several bird species of high conservation concern including Hen Harrier, Golden Eagle, Golden Plover and Red Grouse which Third Parties consider would be sensitive to windfarm development.

Response:

Please refer to response to Issue 3 in Section 6.1.2 of this response document.

Issue 4: Potential for Effects on Freshwater Pearl Mussel

It was submitted that the potential for adverse effects on the Freshwater Pearl Mussel has not been assessed in compliance with the latest relevant reports, namely:

- Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2024). Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland. <https://e-mussels.eu/europe/conservation-guidelines>; and
- Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2023). Supplementary Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland: Blackwater River (Cork/Waterford) SAC <https://e-mussels.eu/europe/conservation-guidelines>

Response:

In the first instance it is of note that the planning application for the Proposed Development was made on the 09th November 2023 which pre-dates the date of publication of the referenced guidance documents, which was December 2023 and January 2024.

Notwithstanding, having reviewed the 'Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland' and supplementary guidance, the Applicant can confirm that the potential for adverse effects on freshwater pearl mussel has been assessed in accordance with the guidelines. In particular the guidelines require that *"The potential for likely significant effects can be established using a Source-Pathway-Receptor (S-P-R) model. As part of this mechanism, for an effect to be likely, all three elements of it must be in place. The absence or removal of one of the elements of the model results in no likelihood for an effect to occur"*.



The Screening Report, using the S-P-R process identifies that the turbine delivery route is within the same sub-catchment as the Lower River Suir SAC and is therefore potentially hydrologically linked. Similarly, the grid connection route and TDR are within the catchment of a tributary of the River Finish which flows into the Blackwater River (Cork/Waterford) SAC (002170). The Suir and the Blackwater rivers are designated for the protection of freshwater pearl mussel.

However, as part of the Natura Impact Statement, the occurrence Freshwater Pearl Mussel populations within the Lower River Suir and Blackwater River SACs relative to the Proposed Development was further examined. It was determined that there is no tangible hydrological pathway for effect for pearl mussel (see Table 4-2 of the Natura Impact Statement) on the basis that the proposed works within the Suir catchment, along the turbine delivery route which are located adjacent to the transitional waters of the River Suir at Bellview Port are in a distinct waterbody sub-catchment (and waterbody type) from the location of pearl mussel, which is within the Clodiagh Catchment. Similarly, the pearl mussel populations associated with the Blackwater River are within the Owentaraglin and Allow catchments, which are distinct waterbody catchments from the River Finisk. Therefore, the absence of a 'pathway' in the S-P-R model determines no potential for adverse effects on the Freshwater Pearl Mussel.

In order to provide further clarity, and in light of the new Pearl Mussel Guidelines, this response document further examines the potential for effects (Table 6.1) using the recommended approach in the guidelines which is to adopt the *'checklist of questions to ensure that short-term activities or long-term plans or projects do not damage Margaritifera populations'* as per I.S. EN 16859:2017 is the adopted Irish version of the European Document EN 16859:2017.

Firstly, and in the context of the conclusions presented in Table 6.3, it is pertinent to set out the location at which the Proposed Development could potentially interact with the Lower River Suir SAC and the Blackwater River (Cork/ Waterford) SAC.

Potential Interactions with the Lower River Suir SAC:

1. As per Appendix 2.2 - Turbine Delivery Route Assessment, the turbines will be delivered via Belview Port. Belview Port is located adjacent to the transitional (estuarine) waters of the Lower Suir Estuary (Little Island – Cheekpoint, IE_SE_100_0500, which is part of the Lower River Suir SAC. There is a requirement for accommodation works (the laying of a load bearing surface) at the container yard, to protect the rail link and at the junction with the N29. These works are located approximately 55m from the Lower Suir Estuary at their closest point. Additionally, the accommodation works will include the temporary relocation of containers to facilitate the vehicle movements. The movement of containers in this location is a daily activity that is an integral part of the Port operations (see <https://www.portofwaterford.com/the-port/port-operations/container-handling/>).
2. As per Figure 12.1 - Hydrology Study Area, a short section of road within the Wind Farm Site (ca. 1.6km in length) will be located within the northern face of Milk Hill, which is within the NIER_020 waterbody sub-catchment, which is part of the Lower River Suir SAC.
3. The proposed on-site borrow pit will be located on the boundary of the NIER_010 sub catchment.

The freshwater pearl mussel populations in the Lower River Suir SAC occur within the Clodiagh River catchment, located approximately 6.5 km east of the proposed wind farm Site, on the opposite side of the Comeragh Mountain range and in an entirely different catchment to the Nier.



Potential Interactions with the Blackwater River (Cork/ Waterford) SAC:

1. The Proposed Development will require that a small stream (IE_SW_18F020300), which is seasonally dry and is tributary of the river Finisk (FINISK_020) is temporarily culverted. The Finisk ultimately flows in to the estuarine waters of the Lower Blackwater M Estuary / Youghal Harbour which is part of the Blackwater River (Cork/ Waterford) SAC.

The freshwater pearl mussel populations in the Blackwater River (Cork/ Waterford) SAC occur within the Blackwater main channel and the River Allow. The nearest location of which is approximately 2 km west of the proposed temporary culvert location and in an entirely different catchment to the Finisk.

It is of note also that extensive surveys to inform the aquatic ecology assessment were completed in 2020 which included Freshwater Pearl Mussel Survey in the Nier, Finisk and Colligan rivers (refer to Appendix 9.3. The location of Fisheries Assessments are shown in Figure 2.1 of Appendix 9.3 and included hereunder for ease of reference:

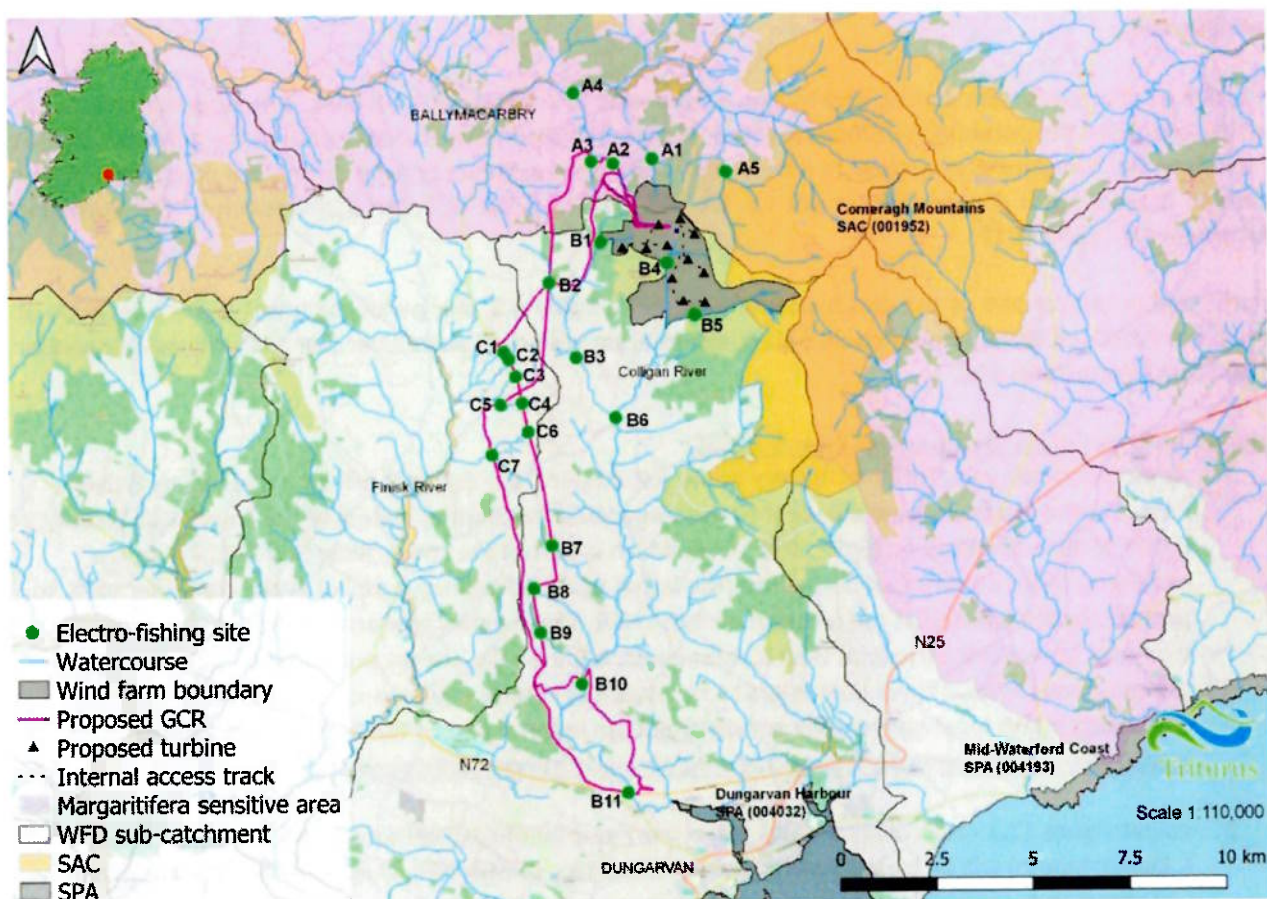


Figure 6-4: Extract from Aquatic Survey Report, Appendix 9.3 of EIAR

The Colligan was determined to be unsuitable in the upper reaches, while there is some suitable habitat in the lower reaches. However, no mussels were found. As no freshwater pearl mussels were found in sections of the Colligan where the habitat is most suitable for this species, combined with no shell fragments found in the gravel bank at Kildangan Bridge and the lack of any historical records of its presence in the Colligan, it can be concluded that freshwater pearl mussels are absent from the Colligan catchment.

The small size of the tributaries and the high energy and unstable nature of the Nier main channel makes this catchment unsuitable for freshwater pearl mussels. There has never been any evidence of this species in the Nier catchment.



The small size of the tributaries in this section of the Finisk makes them unsuitable for freshwater pearl mussels. The physical habitat of the main channel of the Finisk downstream of the tributaries appears to be quite suitable for this species, although the water quality recorded here is not suitable. One section of the Finisk, from ITM 61857 60389 to 61808 60344, was surveyed for mussels. No mussels were found. As no freshwater pearl mussels were found in a section of the Finisk where the habitat is most suitable for this species, combined with unsuitable water quality and the lack of any historical records of its presence in the Finisk, it can be concluded that freshwater pearl mussels are absent from the Finisk catchment.

Table 6-3: Checklist of questions that should be addressed to ensure that plans or projects do not damage *Margaritifera* populations

Aspect	Question	Response
Mussel Population	Will the plan or project result in humans, animals or equipment entering the river?	Lower River Suir SAC: No in-stream works are required in the SAC or in any tributary thereof. Blackwater River (Cork/ Waterford) SAC: No in-stream works are required in the SAC. Works will be carried out within a small stream which is a tributary for the River Finish, which ultimately flows in to the Blackwater estuary.
	Has the plan or project the potential to affect the annual reproductive cycle of the mussels?	Lower River Suir SAC: No. Blackwater River (Cork/ Waterford) SAC: No. While the Proposed Development includes in-stream works in a stream which is hydrologically connected to the SAC, the stream and the River Finisk are not suitable to support pearl mussel either due to the morphology of the watercourse or water quality (see Appendix 9.3 – Aquatic Survey Reports of the EIAR) . Additionally, the stream is not of a quality that would provide suitable habitat for host fish species.
	Will the plan or project increase the risk of pearl fishing, or direct disturbance to mussel beds?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
Fish hosts	Has the plan or project the potential to affect the upstream or downstream migration of salmonids, including the timing of their movements?	Lower River Suir SAC: No. there will be no interaction with any watercourse in the SAC. Blackwater River (Cork/ Waterford) SAC: No. The proposed works are at the head of the stream, which is unsuitable juvenile of adult habitat for host fish.
	Has the plan or project the potential to affect the distribution or numbers of salmonid fish in the catchment?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Has the plan or project the potential to affect the quality and distribution of salmonid spawning habitat?	Lower River Suir SAC: No. Blackwater River (Cork/ Waterford) SAC:



Aspect	Question	Response
		No – refer to Appendix 9.3 – Aquatic Survey Reports of the EIAR which notes that location C6 (i.e. the location of the proposed in-stream works) “..was 100% dry at the time of survey and evidently seasonal. The historically-straightened and over-deepened site was of no fisheries value in the vicinity of the road crossing”.
	Has the plan or project the potential to affect the species composition of fish in the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
Non-native species	Has the plan or project the potential to introduce or encourage the spread of non-native species to the river or catchment?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
Water Quality	Will there be a new outfall or changes to an established outfall entering the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will changes to land management have the potential to increase nutrient loading to the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will the plan or project result in the concentration of nutrients that are currently more dispersed?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will any aspect of the plan or project potentially affect the temperature regime of the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will the plan or project change the pH of the water?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will any fertilizers be needed to establish or continue the project?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No



Aspect	Question	Response
	Will the plan or project result in more intensive use of the catchment?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will the plan or project result in greater wastewater production in the catchment (increased human or animal loading)?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will any pesticides be needed to establish or continue the project?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will any potentially toxic substances be used in or generated by the project that would be damaging if they were to enter the river?	Lower River Suir SAC: No – the proposed works include creation of temporary load bearing surface and on-site roads which will utilise rock won on site and surface dressing brought on to site from local quarries. The concrete works associated with turbine foundations are not located within the Nier or Suir waterbody catchments. Blackwater River (Cork/ Waterford) SAC: No. As per the EIAR Chapter 2 – development Description, the temporary piped culvert will be installed by taking the bed of the stream down to the desired levels to create a suitable platform for laying the culvert. The pipe culvert will be lifted into place with excavator with a lifting mechanism / crane and will have an invert level 500 mm below the existing watercourse bed level. The embedded section will be allowed to fill naturally. No concrete works are required.
	Has the plan or project the potential to change the water quality of the river in any other way	Lower River Suir SAC: No. The Proposed Development includes SuDS which will ensure the management of “dirty” water during construction and operation. Blackwater River (Cork/ Waterford) SAC: No. The temporary culvert will be installed under dry works conditions.
Flow	Are there planned abstractions, or changes to abstraction levels or compensation flows?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will any planned changes in land management indirectly result in changes to the flow regime of the river?	Lower River Suir SAC: No – the Proposed Development includes SuDS and there will be no waterbody crossings or in-stream work in the Nire catchment.



Aspect	Question	Response
		<p>Blackwater River (Cork/ Waterford) SAC: No, the culvert crossing will be temporary and will be designed in accordance with IFI (2016) ' Guidelines on protection of fisheries during construction works in and adjacent to waters' such that hydromorphology will be maintained.</p>
	Is there any modification to drainage, or dewatering associated with the plan or project?	<p>Lower River Suir SAC: The proposed development will not alter existing land drainage and will employ SuDS.</p> <p>The Proposed Development will include excavation that may require dewatering. The borrow pit will be located within the NIER_010 and any dewatering will be to SuDS. It is of note that as per Table 11-12 in Chapter 11 - Soils, Geology and Hydrogeology that ground investigation of the Site showed no groundwater strike for many of the trial pits carried out and indeed the bore hole at the borrow pit location did not encounter groundwater. This is not surprising given the elevation of the Site and the geological conditions. As such any water ingress during excavation will be associated with the soil water content and is not likely to be significant. Additionally there are no turbine foundation works within the Nier catchments. The new sections of road within the Nier catchment will be predominantly in fill as shown on drawing P2360-0100-0064 and as such will have an associated low requirement for dewatering.</p> <p>All dewatering will be into the catchment from where the water originates and into the SuDS system.</p> <p>Blackwater River (Cork/ Waterford) SAC: There will be no requirement for dewatering or alteration of drainage for the purpose of the temporary culvert works.</p>
	Will any modification have the potential to change the stability conditions of the river bed?	<p>Lower River Suir SAC: No. There will be no in-stream works</p> <p>Blackwater River (Cork/ Waterford) SAC: No.</p>
	Has the plan or project the potential to affect the flow regime in the river in any other way?	<p>Lower River Suir SAC: No</p> <p>Blackwater River (Cork/ Waterford) SAC: No</p>
Substrate Quality	Has the plan or project the potential to increase fine sediment loading to the river or within the river?	<p>Lower River Suir SAC: No SuDS is inherent to the design of the Proposed Development.</p> <p>Blackwater River (Cork/ Waterford) SAC: No the works will be carried out under dry conditions and the scale of works are very minor.</p>



Aspect	Question	Response
	Could works affect the supply of coarse sediment to the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No
	Will the plan or project potentially lead to erosion or bare soil in the catchment or directly adjacent to the river?	Lower River Suir SAC: There will be temporary exposure of subsoil during construction, the runoff from which will be managed by SuDS. Blackwater River (Cork/ Waterford) SAC: There will be temporary exposure of subsoil during construction of the culvery, which will be completed under dry works conditions.
	Is there any new drainage or drainage maintenance associated with the plan or project?	Lower River Suir SAC: Yes the project will include SuDS Blackwater River (Cork/ Waterford) SAC: No
	Are any instream works planned (e.g. gravel removal)?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: Only on the seasonally dry stream.
	Are any structures planned close to the river, within or across the river (e.g. installing flow deflectors)?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: Yes – temporary culvert in seasonally dry stream.
	Are there any bank reprofiling or bank engineering plans?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No other than works associated with the culvert
Riparian landuse	Has the plan or project the potential to affect the nature of the riparian habitat in the river?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: The riparian habitat at the proposed temporary culvert location comprises rank grassland.
	Has the plan or project the potential to affect the nature of the floodplain?	Lower River Suir SAC: No Blackwater River (Cork/ Waterford) SAC: No



Aspect	Question	Response
Vibration and drilling / blasting / noise	Has the plan or project the potential to affect the mussels or their hosts through damage arising from vibration and drilling / blasting / noise?	Lower River Suir SAC: No, no in-stream works. Blackwater River (Cork/ Waterford) SAC: No – no fishery potential in the stream.

Conclusion

It is evident from Table 6.3, and having regard to the *Margaritifera* Guidelines, that there is no potential for the Proposed Development to 'damage *Margaritifera* populations' or to impact on the criteria which are the structure and function necessary to support freshwater pearl mussel in the Lower River Suir SAC and the Blackwater River (Cork/ Waterford) SAC.

6.1.8 Landscape and Visual Impact

Issue: Turbine location and height

The submission responses and themes to be addressed include;

- The scale and height of the turbines are considered to be too large for the receiving landscape.
- The proposed turbines are located in a 'no-go area'.
- The perceived visual impact of the proposed development on surrounding scenic routes and the Comeragh Mountain Drive.
- The accuracy of the photomontages

Response:

Please refer to Section 5 of this response document.

6.1.9 Archaeology

Issue 1: Impact on Scart Bridge

Concerns were raised regarding a potential impact on Scart Bridge, a protected structure and NIAH structure.

Response:

No works are proposed at Scart Bridge.

It is apparent from the submissions received from Third Parties that the presentation of grid route options in Chapter 3 - Site Selection and Alternatives and in Figure 3.8 of the EIAR has been misinterpreted by the Third Parties as part of the Proposed Development.

In particular, Grid Option C, an alternative grid route that was examined which passes across Scart Bridge, has been misconstrued as being part of the Proposed Development. However, as set out in *Table 3-7: Comparison of Potential Environmental Effects of the Alternative Grid Route Options* of Chapter 3 of the EIAR, this grid options was disqualified as a less suitable option because *inter alia* it "Passes close to zone of notification of three recorded monuments and passes two protected structures/NIAH features" noting that this includes Scart Bridge.



For clarity and avoidance of doubt, Grid Route Option C, which crossed the Scart Bridge, was eliminated as an option through the grid connection route selection process.

As set out in Chapter 2 of the EIA, it will be necessary to access the proposed meteorological mast location via Scart Bridge both during construction operation and decommissioning phases of the Proposed Development. Chapter 2 states that *"The permanent meteorological mast will be accessed from the local road network to the south of the Site and will be used solely for works associated with the construction, operation and decommissioning of the meteorological mast"*. Section 2.4.1.5 of Chapter 2 of the EIAR sets out the construction methodology for the meteorological mast and notes that the works will be carried out by a small crew using a small aggregate crane.

For clarity, the met mast is simple to deliver and construct, only requiring 4x4 or all-terrain vehicles with trailers or flat-bed lorry to transport the mast components to Site. The mast is erected using a small aggregate crane which can be brought to site on the flat-bed lorry or can be a component of the lorry itself. The mast can be constructed and in operation within a period of approximately 7 days depending on weather conditions.

No works to Scart Bridge are required for this purpose and the vehicles to be used are not of an unusual load or size.

6.1.10 Traffic and Transport

Issue 1: Impact on local road network disruption

Concerns have been raised that the Proposed Development will likely have a significant adverse impact on the local road network, would endanger public safety by reason of a traffic hazard, and will cause damage to the condition of the road network due to construction traffic and abnormal load vehicles.

Response:

Please refer to the traffic and transport response provided to the Waterford City and County Council submission.

Issue 2: Access to Met mast

Clarity is sought by Third Parties on whether the meteorological mast is to be accessed by the main entrance or the internal access road.

Response:

In response the Applicant confirms that the access to the meteorological mast will be through its own dedicate access road and not through the wind farm site as per the planning application which sets out that the Proposed Development includes "Creation of 1 no. new construction and operation access to the permanent meteorological mast". Additionally, Chapter 2- Development Description of the EIAR details that *"The permanent meteorological mast will be accessed from the local road network to the south of the Site and will be used solely for works associated with the construction, operation and decommissioning of the meteorological mast. The locations of the Site entrance and access to the meteorological mast is shown on Figure 2.2, Volume IV and on Planning Drawing P2360-0100-0002"*.

The power source for the permanent met mast will be taken from the ESB overhead line along the local road and will be an underground cable following the access road to the met mast and will connect to an electrical kiosk which will be installed within the met mast site.

As such the access and electrical supply to the met mast will be fully independent of the Wind Farm Site.



6.1.11 Air and Climate

Issue 1: No Calculations on Carbon Losses and Carbon Gains

A submission put forward states that there is an ‘*apparent lack of information on Carbon and how this application is totally inadequate as regards its analysis of carbon losses and gains*’.

Response:

Chapter 6 of the accompanying EIAR outlines the Carbon Losses and Carbon Gains analysis. The Scottish Carbon Calculator Tool was used to calculate whole life carbon emissions and carbon savings as a result of the Proposed Development. Input data used in the calculations is presented in Appendix 7.1, Volume III of the accompanying EIAR.

In terms of climatic impact, the appraisal considered the net impact that operating the proposed development will have in terms of CO₂ and its displacement of CO₂ from other energy sources over the carbon losses caused by its manufacturing, transportation, construction and decommissioning using the Scottish Carbon Calculator tool.

In addition to the CO₂ factored for emissions purposes, greenhouse gas (GHG) emissions are also factored into the overall carbon calculation. GHG are associated with the manufacture, transport, construction, operation (linked to backup generation) and decommissioning of wind turbines.

As outlined in Section 7.4.4 of Chapter 6, ‘*Based on the Scottish Windfarm Carbon Assessment Tool, during the manufacturing and transportation of turbines, and construction and decommissioning of the turbines 59,286 - 70,498 tonnes of CO₂ will be lost to the atmosphere. This is based on the assessment of the Vestas (Model: V162 6.0 – 7.2MW), the lower range of 6.0MW and the upper range of 7.2MW were both considered for the assessment and the results for each presented. This represents 1.85 - 1.87 % of the total amount of CO₂ emissions that will be offset by the proposed development*’.

Overall, ‘*it is estimated that 3,176,680 - 3,814,600 tonnes of CO₂ will be displaced over the proposed forty-year lifetime of the wind farm i.e. 79,417 - 95,365 tonnes of CO₂ per annum, which assists in realising the ambitious goals of the Climate Action Plan 2023.*’

For the proposed development with 10 no. turbines assuming a turbine power rating of 6.0 - 7.2 MW, and operational period of 40 years, the payback time for the manufacture, construction, and decommissioning phases (including carbon losses from soil, felling of forestry etc.) of the Proposed Development is estimated at approximately 1.1 years.

A total of 5.4 hectares of new forestry will be replanted in accordance with the Forestry Act, 2014 at the alternative site to compensate the loss of forestry at the Site which will offset a 2,851 tonnes of CO₂ lost due to the felling of forestry.

For more information on Carbon Losses and Carbon Gains, refer to Table 7-9: Carbon Balance Results in Chapter 6 outlines the carbon balance for the Lower Range output (6MW) and Higher Range output (7.1MW) and Appendix 7.1 in Volume III of the EIAR outlines the carbon calculations.



6.1.12 Protection of Water Quality

Please refer to the response to An Taisce and to the Development Application Unit for submission response relating to water quality and drainage.

Issue 1: Effects on Groundwater and Private Wells

There are concerns that the project will impact water supply coming from local mountain area and contaminate the river.

Response:

A review of published information on groundwater supply sources within the study area was undertaken to identify potential groundwater dependant receptors at potential risk from the Project. These include group water schemes (GWS), source protection zones and private supply wells with information on these features obtained from the GSI Groundwater database.

The dewatering of the foundation excavations is not expected to cause interference with domestic wells in the area, due to large offset distances to known wells, relatively shallow depths of excavation and temporary short-term nature of dewatering, if required. To monitor groundwater during the construction phase groundwater monitoring wells will be installed between areas of deeper excavations and sensitive groundwater receptors, such as areas of shallow bedrock. The wells will be used to monitor groundwater levels and quality to assess any potential impacts during the construction works.

Issue 2: Silt Fencing

Concern has been raised about the adequacy of adopting silt fencing as a mitigation measure to protect water quality. Reference has been made to the Journal of Environmental Management Volume, 164 December 2015, Pages 67-73 which states *"To prevent offsite movement of soil particles, many environmental regulatory agencies mandate the use of perimeter silt fences. However, research regarding the efficiency of these devices in applied settings is lacking, and fences are often ineffective. The damage is almost instantaneous when silt fences fail"*.

Response:

In the first instance it is important to note that silt fencing is a measure that correlates to an action that would be carried out under the second rung of the mitigation hierarchy⁵⁸ which is aimed at preventing impacts. Acknowledgement should be made of the mitigation by avoidance that has already been adopted in to the Proposed Development design such that appropriate set back distances from watercourses are achieved (see response to An Taisce).

Additionally monitoring measures are included in the EIAR such that any potential for sedimentation is identified early. For example Section 12.12.3, Page 51, Control of Sediment Runoff – requires that during dewatering works water quality in the nearby downstream drains and watercourses will be monitored in real time for turbidity. Where turbidity equals or exceeds 28 Nephelometric Turbidity Units (NTU) the works will be stopped and an investigation into cause carried out and measures taken as appropriate. Additionally, during in-stream works the EnCoW / ECoW will monitor the pH, temperature, DO, turbidity and conductivity of the watercourse upstream and downstream of the isolated works area.

⁵⁸ The Mitigation Hierarchy requires that in the first instance a development / action should aim to avoid impacts followed by prevention and reduction.



The works will be immediately stopped and an investigation of cause carried out and mitigated in the event of the following:

- any change in pH +/-0.5 detected between upstream and downstream monitoring locations;
- downstream turbidity exceed 28 NTU
- DO drops below 80% saturation

For clarity this monitoring is to be continual during instream works.

The efficacy and design of silt fencing has evolved significantly since the date of publication Journal of Environmental Management Volume, 164 in December 2015 and the manufacturers requirements have become much more specific in ensuring proper usage in varying environmental contexts.

The EIAR sets out a high standard of requirements for silt fencing at the Coumnagappul Wind Farm. The silt fence design and the installation method is set out in Planning Drawing P2360-0501-0001. This is to ensure that the correct material is used (it is recognised that historically unsuitable material such as terram may have been used on construction sites), and that the setting out is appropriate to the terrain. Additionally, the EIAR requires daily checks by the EcOW and that sediment build is removed as deemed necessary by the EnCoW and as a minimum in accordance with manufacturers requirements. This gives full confidence in the proper functionality of silt fencing on site.

Issue 3: Peat Slippage / Landslide

Submissions were received highlighting concern for development in an area of mapped as upland peat by the GSI.

Response:

Please refer to Section 6.1.1 (An Taisce) of this response document.

6.1.13 Adequacy of Community Consultation

Issue 1: Community Consultation

Several submissions identified a perceived deficiency with the adequacy of the community consultation during the development design and EIAR process.

Response:

This section of the response to submissions focuses on the community consultation that was undertaken by the Applicant throughout the progression of the Proposed Development. The key issues identified in the submissions include:

- Lack of Community Consultation
- Location of and notification about upcoming community engagement events

Lack of Community Consultation

There were a number of submissions from the general public about a perceived lack of community consultation over the 4 year duration of consultation undertaken prior to the submission of this planning application. However, the Applicant strongly refutes this.



In section 5.3 of the EIAR submitted with the planning application, the Applicant has stated that engagement for the Proposed Development began in 2019. Initial engagement with the community began with discussions with near neighbours and dwellings (within 2km) of the Proposed Development. After the initial consultation with Waterford City and County Council and given the small number of dwellings within the 2km area (44 no.), it was decided to widen the engagement area to near neighbours and dwellings within 3km of the Proposed Development, which increased the number from 44 to 108 dwellings.

Consultation undertaken for the community comprised of:

- 3 no. Public information evenings)
- 3 no. Public interactive webinars
- Continuous project website updates
- Circulation of 7 no. newsletters.
- A virtual consultation room (opened in December 2022 on the project website)
- A number of community letters circulated to dwellings within 2-3km
- The appointment of a Community Liaison Officer and dedicated phone number for the public to consult with the Applicant
- A submission feature on the project website which allowed individuals to submit their views and concerns or organise individual housecalls. This feature has been active since the inception of the project website in 2019 and remains active at the time of this submissions response.
- Emails to all stakeholders who had contacted the Applicant through the project website.

Table 5-3 of Chapter 5 of the EIAR submitted with the planning application demonstrates the timeline of public consultation, and for ease of reference, is replicated in the following excerpt.



Table 6-4: Extract of Table 5-3 of Chapter 5 of the EIAR – Community Consultation

Timeline	Action
2019	<ul style="list-style-type: none"> Dedicated Project Website Goes Live – www.coumnagappulwindfarm.ie First Project Information Newsletter distributed 2km radius (44 Eircode's) First Project Community Letter distributed 2km radius (44 Eircode's) The project's first In Person Project Information Event was hosted on 21/08/2019 – All interested Stakeholders.
2020	<ul style="list-style-type: none"> Second Project Information Newsletter distributed 2km radius (44 Eircode's) Second Project Community Letter distributed 2km radius (44 Eircode's) First Project Design Online Webinar – All interested Stakeholders
2021	<ul style="list-style-type: none"> Third Project Information Newsletter distributed 2km radius (44 Eircode's) Third Project Community Letter distributed 2km radius (44 Eircode's) Second Online Design Webinar was hosted on 01/06/2022– All interested Stakeholders
2022	<ul style="list-style-type: none"> September 2022 Project Information Newsletter distributed to a 3-kilometer radius (108 Eircode's) September 2022 Project Community Letter distributed to a 3-kilometer radius (108 Eircode's) Design Online Webinar was hosted on 05/10/2022– All interested Stakeholders The project's second In Person Project Information Event was hosted on 12/10/2022 – All interested Stakeholders December 2022 Project Information Newsletter distributed to a 3-kilometer radius from the projects Study Area. (108 Eircode's) December 2022 Project Community Letter distributed to Immediate consultation zone (108 Eircode) December 2022 Projects Online Virtual Exhibition Room Opened: https://tours.innovision.ie/v/NkixJYoa1lQ
2023	<ul style="list-style-type: none"> April 2023: Fifth Project Information Newsletter distributed to a 3-kilometer radius from the projects Study Area (108 Eircode's), Fifth Project Community Letter distributed to Immediate consultation zone (108 Eircode's), the project's third In Person Project Information Event was hosted on 26/04/2023 – All interested Stakeholders October 2023: Fifth Project Information Newsletter distributed to a 3-kilometer radius from the projects Study Area, Fifth Project Community Letter distributed to Immediate consultation zone, The project's third In Person Project Information Event was hosted on 26/04/2023 – All interested Stakeholders

Community engagement comprised seven stages over a four-year period. Consultation commenced in 2019 and finishing in October of 2023. A detailed community consultation report has been submitted with the EIAR, please refer to Appendix 5.2 of the EIAR for additional information.

Location of and notification about upcoming community engagement events

A number of submissions discussed a lack of notification about upcoming community engagement events during the 4 year community engagement process. This information was outlined in Chapter 5 Scoping and Consultation of the submitted EIAR, and in Appendix 5.2 of the submitted EIAR. For ease of reference, the dates, times and locations of relevance are set out in this response, but it is respectfully requested that both the chapter and appendix referenced above are consulted for further detail if required.



There were three in-person events held over the course of the community engagement phase of the Proposed Development. It is worth noting that the Covid-19 pandemic curtailed the number of in-person events which could be held between the years of 2020 through to 2022 which could be a contributing factor towards individuals who feel that consultation was considered inadequate. In-person events were supplemented with a number of webinars in the intervening years before in person events recommenced in late 2022.

In Person Event Date / Location	Date / Method community was notified
21st Aug 22 2019 in the Park Hotel, Dungarvan, Co. Waterford	published in Dungarvan Observer on 16 th Aug 2019
10 th December 2022 in the Sliabh gCua Community Centre, Touraneena, Co. Waterford	notification of this event was sent out in a community letter dated 23 rd September 2022
26 th April 2023 in the Ballymacarbry Community Centre, Ballymacarbry, Co. Waterford	

While the locations of the in-person events were in a number of different locations, the intention was to facilitate the dispersed needs of the local community. It was considered that having in person events in Ballymacarbry, Touraneena and Dungarvan was representative of the community as a whole.

In addition to the above in person events over the duration of the Covid-19 pandemic, a number of online live webinars were hosted on the project website and were advertised in advance of each event as set out below.

Webinar	Date / Method community was notified
10 th December 2020 - Public Webinar 1 (7pm)	Notification of this event occurred: <ul style="list-style-type: none"> Community letter sent out on 27/11/2020 and hand delivered on 29/11/2020 advertised in the Dungarvan Observer on 4/12/2020
1 st June 2021 - Public Webinar 2 (7pm)	Notification of this event occurred: <ul style="list-style-type: none"> community letter sent out on 21st May 2021 and hand delivered on 22nd May 2021 Dungarvan Observer on 28/5/21
5 th October 2022 - Public Webinar 3 (7pm)	Notification of this event occurred: <ul style="list-style-type: none"> community letter sent on 23/9/2022 and advertised in the Dungarvan Observer on 30th September 2022. Online webinar questions were answered and included in appendix 5.2 of the submitted EIAR



7. CONCLUSION

As detailed within our Strategic Infrastructure Development Application, we respectfully request An Bord Pleanála to review our response to the submissions lodged against the proposed development when reaching their decision on the application in the interest of proper planning and sustainable development of the area. It is submitted that all the concerns raised in the submissions have been addressed during this response process.

This renewable energy project is an important part of Waterford County Council's contribution to lowering CO2 levels and in meeting our statutory renewable energy targets. It is submitted that, having regard to National Energy Policy, and the policies set out in the Waterford County Development Plan which supports Wind Energy development in the County the proposed development is in accordance with the proper planning and sustainable development of the area.

It is also submitted that this submission response and the SID application already submitted has adequately addressed the concerns raised in submissions.



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