S. 37

File With _____

SECTION 131 FORM

Appeal NO: ABP 310789-21

☐ Defer Re O/H

TO: SEO

Having considered the contents of the submission ~~dated~~/ received 20-8-21 from Applicant I recommend that section 131 of the Planning and Development Act, 2000 be/~~not be~~ invoked at this stage for the following reason(s): No New Issue

E.O.: Lisa Dunne Date: 20/8/21

To EO: _____

Section 131 not to be invoked at this stage. ☐

Section 131 to be invoked – allow 2/4 weeks for reply. ☐

S.E.O.: _____ Date: _____

S.A.O: _____ Date: _____

M _____

Please prepare BP _____ - Section 131 notice enclosing a copy of the attached submission

to: _____ Task No: _____

Allow 2/3/4weeks – BP _____

EO: _____ Date: _____

AA: _____ Date: _____

S. 37

File With _____

CORRESPONDENCE FORM

Appeal No: ABP 310789-21

M C Sutton

Please treat correspondence received on 10-8-21 as follows:

1. Update database with new agent for Applicant/Appellant _____
2. Acknowledge with BP CO
3. Keep copy of Board's Letter ☐

1. RETURN TO SENDER with BP _____
2. Keep Envelope: ☐
3. Keep Copy of Board's letter ☐

Amendments/Comments

Applicat response to wind Awar appeal.

4. Attach to file
   (a) R/S ☐ (d) Screening ☐
   (b) GIS Processing ☐ (e) Inspectorate ☐
   (c) Processing ☐

RETURN TO EO ☐

	Plans Date Stamped ☐ Date Stamped Filled in ☐
EO: A. Dokely	AA: Patrice Buc
Date: 12-8-21	Date: 13/8/21

A Doherty

Rory Kelledy

From:	Bord
Sent:	Tuesday 10 August 2021 16:59
To:	Appeals2
Subject:	FW: ABP-310789-21- Croagh Wind Farm RGOA Leitrim
Attachments:	2021.08.10- Wind Aware RGOA- 180511- F1.pdf

From: Paul Sweeney <psweeney@mkoireland.ie>
Sent: Tuesday 10 August 2021 16:41
To: Bord <bord@pleanala.ie>
Cc: Jimmy Green <JGreen@mkoireland.ie>; Eoin McCarthy <emccarthy@mkoireland.ie>
Subject: ABP-310789-21- Croagh Wind Farm RGOA Leitrim

Dear Sir/Madam,

MKO have been instructed on behalf of our client, Coillte CGA, Newtownmountkennedy, Co. Wicklow, to prepare and lodge this Response to Grounds of Appeal (RGOA) document in response to a third party planning appeal reference ABP-310789-21 made by Environmental Management Services on behalf of Wind Aware Dromahair in respect of a decision by Leitrim County Council (Pl.Ref.20/120). Our client was notified by An Bord Pleanála of the third-party appeal which has been made in relation to the noted planning application by Environmental Management Services on behalf of Wind Aware Dromahair on the 14th of July 2021 and are as such within the appropriate response period.

Should you require any additional clarity please feel free to get in contact.

Kind regards,
Paul

Paul Sweeney
Planner

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1. INTRODUCTION

MKO have been instructed on behalf of our Client, **Coillte CGA, Newtownmountkennedy, Co. Wicklow**, to prepare and lodge this Response to Grounds of Appeal (RGOA) document in response to a third party planning appeal reference ABP-310789-21 made by Environmental Management Services on behalf of Wind Aware Dromahair in respect of a decision by Leitrim County Council (Pl.Ref.20/120) ('the Planning Authority') to grant planning permission for a renewable energy development. The proposed Croagh Wind Farm development constitutes the provision of a ten-turbine wind farm and all associated works including recreational facilities on lands in both Counties Leitrim and Sligo with 8 No. turbines and all associated infrastructure proposed within the functional area of Leitrim County Council and 2 No. turbines and their associated infrastructure proposed within the functional area of Sligo County Council.

The proposed development is being brought forward to provide renewable energy to the national grid in order to contribute towards Ireland meeting its renewable energy targets to offset carbon, reduce green house gas emissions and fight climate change. The production of renewable energy from the proposed development will assist in achieving the Government's and EU's stated goals of ensuring safe and secure energy supplies, promoting an energy future that is sustainable and competitively priced to consumers whilst combating energy price volatility and the effects of climate change. Ireland faces significant challenges to its efforts to meet EU targets for renewable energy by 2030 and its commitment to transition to a low carbon economy by 2050. The proposed development can aid in meeting these targets should favourable consideration be given. In addition as set out throughout the application documentation and as evidenced in the decisions issued by both Leitrim and Sligo County Council's the site of the Proposed Development is entirely appropriate for the provision of renewable energy. The layout of the proposed development has been led by consideration of constraints and facilitators, thereby avoiding the environmentally sensitive parts of the site. The proposed development will provide a number of benefits including the secure supply of energy but also in the form of recreational amenities to the area through the introduction of a walking track. An Bord Pleanála should consider the wide range of favourable aspects to the subject site and grant permission accordingly.

Our client was notified by An Bord Pleanála of the third-party appeal which has been made in relation to the noted planning application by Environmental Management Services on behalf of Wind Aware Dromahair on the 14th of July 2021.

The Third-Party appeal lodged in relation to the decision of the Planning Authority to grant permission has been fully considered within this RGOA. We wish to reiterate that the applicants support the decision issued by the Planning Authority which clearly evidences that the development as proposed complies in full with the provisions of the County Development Plan, is in accordance with the principles of the proper planning and sustainable development of the area and can be provided without significant effects on the environment or having adverse effects on the integrity of any European Sites. This Response to Grounds of Appeal should be read in conjunction with the suite of information which accompanied the planning application, further information as well as the first party grounds of appeal which was submitted by MKO on behalf of Coillte CGA on the 9th of July 2021, and a previous response to third party grounds of appeal lodge on the 5th of August 2021.

This response is structured as follows:

- **Section 1**- Introduction, setting out the instruction received and the RGOA structure.
- **Section 2**- Detailed responses to each of the grounds of appeal.
- **Section 3**- Conclusion and summary.

Planning and Environmental Consultants

Response to Grounds of Appeal

Croagh Wind Farm

DOCUMENT DETAILS

Client:	**Coillte CGA**
Project Title:	**Croagh Wind Farm**
Project Number:	**180511**
Document Title:	**Response to Grounds of Appeal**
Document File Name:	**2021.07.22- Leitrim RGOA- 180511- F**
Prepared By:	**MKO** **Tuam Road** **Galway** **Ireland** **H91 VW84**

Planning and Environmental Consultants

Rev	Status	Date	Author(s)	Approved By
01	Draft	22/07/2021	PS/EMC	JG
02	Final	10/08/2021	PS/EMC	JG

1.2 Application Background

Coillte's Renewable Energy Development Team undertook a detailed screening process, through Geographical Information Spatial software (GIS), using a number of criteria and stages to assess the potential of a large number of possible sites, on lands within its stewardship (c. 441,000 hectares), suitable to accommodate a wind energy development. The GIS database drew upon a wide array of key spatial datasets to inform site identification. At a strategic level the site of the Croagh Wind Farm emerged as a suitable candidate site.

Further examination of the site was then carried out to confirm its suitability for wind energy development on a site-specific basis. The relevant planning policy from both the Leitrim and Sligo County Development Plans was examined and the provision of a wind farm at this location was considered to be consistent with both (as evidenced in the decisions that issued from both these planning authorities).

The site of the Proposed Development is not located within any SACs, SPAs, NHAs or pNHAs, nor is it sited within any archaeological heritage areas. Furthermore, the site is not located within any designated scenic areas but is within a landscape that can (and does already) accommodate wind energy infrastructure. The site does not have a high population density, can accommodate significant separation distances to residential properties, offers proximity to existing electrical substations while also having appropriate wind speeds.

The site of the proposed development is also located within existing commercial forestry which allows the site to take advantage of the existing road and access track network. These features combine to make the Croagh site highly appropriate and an ideal candidate site for the provision of wind energy infrastructure and accordingly further assessments, surveys and studies were carried out to inform the design of a wind farm development at this location and which ultimately resulted in the current planning application being lodged.

On the 22nd September 2020, following lodgement of the Planning Application on the 29th of July 2020, Leitrim County Council issued a Further Information request which sought additional details in relation to a total of 78 items. MKO on behalf of the applicant submitted a comprehensive further information response on the 7th of April 2021, which was subsequently re-advertised as being significant to facilitate further third-party engagement. Following review of all application documentation, including EIAR, NIS, further information response and all relevant submissions and observations Leitrim County Council issued their notification of decision to grant permission on the 15th of June 2021 subject to 34 no. conditions. As is evident the subject planning application has been through a full and comprehensive assessment by the Planning Authority who were satisfied on review of all documentation to grant permission for the proposed development.

In issuing its notification of decision to grant permission for the Proposed Development the Planning Authority concluded as follows:

> *"it is considered that subject to compliance with the conditions set out below that the proposed development would accord with European, national, regional and local planning and related policy, it would not have unacceptable impact on the landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, will not adversely affect the archaeological or natural heritage of the area, and it would be acceptable in terms of traffic safety and convenience. The proposed development will make a positive contribution to Ireland's national strategic policy on renewable energy and its move to a low energy carbon future."*

The applicants welcome the decision of the Planning Authority which recognises that the Proposed Development is entirely appropriate at this location and will '*make a positive contribution'* to Irelands renewable energy and low carbon future. It is evident based on the decisions that have issued (from

both Sligo and Leitrim County Council) as well as the results of the comprehensive analysis presented within the application documentation that the subject site is entirely appropriate to cater for a wind farm development.

A concurrent planning application was lodged with Sligo County Council in relation to the elements of the Croagh Wind Farm within that jurisdiction (i.e., the provision of 2 no. wind turbines, meteorological mast, underground cabling, access tracks/roads, amenity works and all associated works) and was assigned the reference Pl. Ref. 20/251. Further information was also sought and issued to Sligo County Council and readvertisement provided along the same timeframe as the Leitrim application. Sligo County Council issued their notification of decision to grant permission on the 15th of June 2021 subject to 20 conditions.

Both the Sligo and Leitrim planning applications have been subject to first and third party appeals that are currently before the Board for consideration.

On the 9th of July 2021 MKO lodged a first party grounds of appeal to An Bord Pleanála with respect to the Proposed Development, and a response has been submitted to the Board (5th August 2021) in relation to a previous third-party appeal. This response to third party grounds of appeal should be read in conjunction with the information submitted previously within that first party appeal.

From the outset we note concerns have been raised throughout the appeal in relation to the content and nature of the application documentation in the context of the recent Derryadd judgment, *Sweetman v the Board & Ors 2020 No. 557 JR [2021] IEHC 390*, our position in relation to this issue has been set out in full within the first party appeal and our response to the previously circulated third party appeal. Our position in this regard remains consistent with our previous submissions in that the Board can absolutely consider and grant permission for the Proposed Development regardless of any previous consideration, reporting or decisions that has been carried out by the relevant planning authority. In this regard Section 37(1)(b) of the Planning and Development Act 2000 (as amended) ("the Act") clarifies that on appeal any proposed development must be considered "de novo" and the decision and consideration of the Board serves to annul the previous consideration of the Planning Authority, should additional details be required by the Board on appeal the provisions Article 73 of the Planning and Development Regulations 2001 (as amended) ("the Regulations") are noted. Should the Board consider it appropriate additional submissions or observations on this matter from any party can be requested under the provisions of Section 131 of the Planning and Development Act 2000 (as amended). For ease, these specific provisions from the legislation are set out below:

Section 37(1)(b) of the Act

"Subject to paragraphs (c) and (d), where an appeal is brought against a decision of a planning authority and is not withdrawn, the Board shall determine the application as if it had been made to the Board in the first instance and the decision of the Board shall operate to annul the decision of the planning authority as from the time when it was given; and subsections (1), (2), (3) and (4) of section 34 shall apply, subject to any necessary modifications, in relation to the determination of an application by the Board on appeal under this subsection as they apply in relation to the determination under that section of an application by a planning authority."

Article 73 of the Regulations

"The Board may, when considering an appeal under section 37 of the Act, invite the applicant for the permission concerned to submit to the Board revised plans or other drawings modifying, or other particulars providing for the modification of, the development to which the appeal relates and an applicant so invited may submit to the Board such number of plans, drawings or particulars as the Board may specify."

Section 131 of the Act

"Where the Board is of opinion that, in the particular circumstances of an appeal or referral, it is appropriate in the interests of justice to request–

a) any party to the appeal or referral,
b) any person who has made submissions or observations to the Board in relation to the appeal or referral, or
c) any other person or body,

to make submissions or observations in relation to any matter which has arisen in relation to the appeal or referral, the Board may, in its discretion, notwithstanding section 127(3), 129(4), 130(4) or 137(4)(b), serve on any such person a notice under this section–

requesting that person, within a period specified in the notice (not being less than 2 weeks or more than 4 weeks beginning on the date of service of the notice) to submit to the Board submissions or observations in relation to the matter in question, and

(ii) stating that, if submissions or observations are not received before the expiration of the period specified in the notice, the Board will, after the expiration of that period and without further notice to the person, pursuant to section 133, determine the appeal or referral."

Accordingly, the Board is in a position to fully consider and assess the proposed development in the context of all the available information on file, and furthermore, should the Board require any further revised plans, other drawings or particulars it can seek additional detail, therefore the Board can carry out its legal functions, review the application in detail, request additional particulars if required and grant permission for the Proposed Development should it be considered appropriate and in accordance with the proper planning and sustainable development of the area.

2. RESPONSE TO THIRD-PARTY GROUNDS OF APPEAL

This Section of the RGOA addresses the Grounds of Appeal raised by Environmental Management Services on behalf of Wind Aware Dromahair ('the appellants') in their appeal document. For ease of reference for An Bord Pleanála we have addressed each of the items raised by the appellants in order following the breakdown of the grounds issued by Environmental Management Services in Section 22 of their report. They have raised 26 no. issues all of which are discussed in order below following the relevant text they use as a summary of the particular grounds of appeal.

2.1.1 GOA 1 & 2- Appropriate Assessment

"There are too many uncertainties in the application to allow An Bord Pleanála to grant planning permission for the proposed wind farm; and, if the Board attempts to undertake an Appropriate Assessment on the basis of the information provided by the application, the results of such an Assessment could be legally challenged;"

"An Appropriate Assessment carried out under Article 6(3) of the Habitats Directive cannot have lacunae and it must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works on any protected Natura 2000 site - and An Bord Pleanála does not have the legal power to grant planning permission if this exacting standard is not met;"

2.1.1.1 Response to GOA 1 & 2 - Appropriate Assessment

In response to these grounds of appeal we first wish to note that the planning application material submitted to date (including a comprehensive response to further information) provided sufficient information for both Sligo County Council and Leitrim County Council to carry out their respective assessments of the proposed development. We also reference the first party grounds of appeal (FPGOA) which was submitted to An Bord Pleanála on the 9th of July 2021, this FPGOA was submitted to the Board in light of the Derryadd judgment (which was issued the day after the decision of the Planning Authority in this case) and while supporting the decision of the Planning Authority it was requested that the Board clarify the nature of the development that has been both assessed and consented through the appeal process. Under the FPGOA, and in the interest of clarity, the applicants noted that the Board can request additional plans and particulars under the provisions of Section 73 of the Regulations to allow the on-file documentation to be augmented and provide greater detail in relation to the extant application documentation with additional drawings, plans and particulars if considered necessary.

The planning application material submitted in relation to Appropriate Assessment is comprehensive and entirely adequate to allow the Board to fully assess the proposed development and that there is no lacuna in information. While this is the opinion of MKO we also note that in light of the Derryadd judgment additional information has been provided (within the FPGOA and in the RGOA dated 5th August 2021) to clarify the nature of the development.

In considering the potential impacts and appropriate mitigation measures to ensure European sites are not impacted the NIS submitted within the application documentation identifies the potential linkages/pathways between the designated sites and the proposed development, which in this case are all hydrological and appropriate mitigation is built into the construction phase, and in particular in the drainage measures that have been incorporated into the project design. Accordingly, the NIS considers the clearly defined development footprint and ground works of the proposed development as detailed on the layout drawings. The required scientific certainty required by the competent authority to

complete its Appropriate Assessment is provided throughout the NIS which clearly concludes as follows:

> *"For the reasons set out in detail in this NIS, in the light of the best scientific knowledge in the field, all aspects of the proposed development which, by itself, or in combination with other plans or projects, which may affect the relevant European Sites have been considered. The NIS contains information which the competent authority, may consider in making its own complete, precise and definitive findings and conclusions and upon which it is capable of determining that all reasonable scientific doubt has been removed as to the effects of the proposed development on the integrity of the relevant Natura 2000 sites.*
>
> *In conclusion, in the light of the conclusions of the assessment which it shall conduct on the implications for the European sites concerned, the competent authority is enabled to ascertain that the proposed development will not adversely affect the integrity of any of the European sites concerned."*

This matter has been addressed in the previously submitted RGOA (5th August 2021), however, as stated in the FPGOA should the Board consider that additional information is required the applicants welcome An Bord Pleanála to request additional plans and particulars from the applicant under the provisions of Section 73 of the Regulations.1.3.1).

2.1.2 GOA 3- Derryadd Wind Farm Judgment

"The lack of precise detail in the planning application, and the lack of certainty about some critical elements of the proposed wind farm, leave no choice to the Board except to refuse planning permission, given the Judgment of the High Court in Sweetman -v- An Bord Pleanála [2021] IEHC 390;"

2.1.2.1 Response to GOA 3- Derryadd Wind Farm Judgment

Grounds of appeal 3 relates to the recent Derryadd judgment (Humphries J Sweetman v An Bord Pleanála 2020 No.557 JR), the appellants alleged that due to the lack of precise detail in the planning application that An Bord Pleanála has no choice but to refuse permission.

In response to this issue, we must initially refer to the FPGOA (FPGOA) which has been lodged with An Bord Pleanála by the applicants on the 9th of July 2021. The FPGOA was submitted to An Bord Pleanála in light of the Derryadd judgment (which was issued the day after the decision of the Planning Authority in this case) and while supporting the decision of the Planning Authority it was requested that the Board clarify the nature of the development that has been both assessed and consented through the appeal process.

This matter has been discussed in full within the FPGOA and it is not intended to repeat the content of that document here, however, it was requested within the FPGOA that the Board grant permission for the proposed development and in doing so include a condition specifying the nature and scale of the turbines which have been consented. This would clarify the overall range of turbine parameters (as set out and assessed in the application documentation including the EIAR and NIS) that are consented. In specifying the relevant parameters of the turbines, the Board will be clarifying that the plans and particulars submitted for the planning application fall within the *"certain limited degree of flexibility"* referenced as being appropriate in the Derryadd judgment. The application documentation submitted, EIAR, NIS and detailed further information response provides comprehensive details and assessments of all elements of the Proposed Development, however, in the interests of clarity and specificity in relation to the plans and particulars the FPGOA invited the Board to request additional plans and particulars from the applicant under the provisions of Section 73 of the Regulations to allow the applicant to augment the extant application documentation with additional drawings, plans and particulars and highlight the detail of the relevant infrastructure if required. It should also be noted that

any additional such details could be re-advertised to allow further formal engagement from all relevant stakeholders and third parties.

The FPGOA also clarified that the application documentation considers a very narrow range of parameters in relation to the proposed turbines, with only a 5m difference between the longest and shortest blade lengths and hub heights giving an overall tip height of between 170/165m. The actual range of turbine configurations is limited throughout with only a variation of 5 metres being considered and not being open at one end of the scale, so that the application documentation submitted considers turbines within the following parameters:

- Turbine Tip Height – Maximum height 170 metres, Minimum height 165 metres
- Hub Height – Maximum height 105 metres, Minimum height 100 metres
- Blade Length: - Maximum length 70 metres, Minimum length 65 metres.

Accordingly, while the application documentation and assessments submitted are comprehensive in scope and content, it is acknowledged that in light of the Derryadd judgment the Board may require additional plans and particulars to be submitted. The FPGOA submitted has addressed this issue and the Board can address any such matters through the appeal processes available to it as this application is now under their jurisdiction for consideration.

2.1.3 GOA 4- Grid Connection

"The application for the connection to the national grid is significantly incomplete, and contains conflicting information;"

2.1.3.1 Response to GOA 4- Grid Connection

Although listed as item 4 within their summary of grounds this matter is discussed in Section 18 of the third-party appeal, in which the appellant claims that the section of the proposed road along which the grid connection cabling route is proposed to be laid is not within the ownership of the applicant. In response, the applicant wishes to clarify that the relevant section of the public road is located within lands that are owned by the applicant and, therefore, no letter of consent is required, and the grid connection route and public road corridor can be located within the application site boundary.

As the construction of the grid connection will require excavations within the public road network, notwithstanding it being located within lands owned by the applicant, these works will require a road opening licence under Section 254 of the Planning and Development Act 2000 as amended from Leitrim County Council. No excavation works will be carried out until such a licence is granted, and it is fully acknowledged that this further detailed consenting procedure will need to be undertaken.

The route of the proposed grid connection is detailed within the application red-line boundary and the grid connection does not require works on lands that are not under control of the applicant. The grid connection route is fully described and shown within the application documentation and there is no uncertainty as to the route nor the nature of works proposed.

Upon completion of the grid connection works along the public road network, the road surface will be adequately reinstated. As stated in Section 7.2 of the *Construction Methodology - Croagh Wind Farm 38kV Grid Connection from Proposed Substation to Grid node* (included as Appendix 4-6 of the EIAR),

> *"For concrete and asphalt/bitmac road sections, carry out immediate permanent reinstatement in accordance with the specification and to the approval of the local authority and/or landowners, unless otherwise agreed with local authorities."*

In relation to the presence, location and potential relocation of existing underground services along the grid connection route, it should be noted that the proposed route was determined following a series of site visits and investigations by TLI Group, a utility infrastructure consultancy and construction company with extensive experience in the utilities sector in Ireland. The undertaking of confirmatory surveys and investigations, prior to the construction of the grid connection, in order to determine the presence or otherwise of existing underground services is accepted as good industry practice. The management of existing services, should they be present along the grid connection route is outlined in Sections 10.1 and 10.2 of *Construction Methodology - Croagh Wind Farm 38kV Grid Connection from Proposed Substation to Grid node.*

Accordingly, the application documentation provides clear, concise and comprehensive details in relation to the grid connection route and there is no ambiguity arising.

2.1.4 GOA 5- Need for the Development

"The applicant has failed to justify a necessity or a need for the proposed Croagh Wind Farm;"

2.1.4.1 Response to GOA 5- Need for the Development

In response to this issue, we wish to highlight Section 1.5 of the submitted EIAR which sets out that the proposed development is being brought forward in order for Ireland to meet its various EU targets for renewable energy production. Renewable energy resources offer sustainable alternatives to Irelands dependency on fossil fuels as well as a means of reducing greenhouse gas emissions and opportunities to reduce our reliance on imported fuels. A gradual shift towards increasing our use of renewable energy resources would result in:

- Reduced carbon dioxide emissions;
- Secure and stable energy for the long-term;
- Reduced reliance on fuel imports;
- Investment and employment in our indigenous renewable energy projects; often in rural and underdeveloped areas.

Renewable energy development is recognised as a vital component of Ireland's strategy to tackle the challenges of combating climate change and ensuring a secure supply of energy. Ireland is heavily dependent on the importation of fossil fuels to meet its energy needs, with imported fossil fuels accounting for 66% of Ireland's dependency in 2017 at an estimated cost of €4 billion. Under the Climate Action Plan 2019 (CAP) it is recognised that "renewable sources of electricity such as wind and solar now account for the majority of new electricity generation capacity being built globally". Additionally, the CAP continues to note that renewables are now cheaper than combined-cycle natural gas and coal for new-build generation capacity outlining the cost effective nature of renewables. The CAP also recognises that there is a need for a range of renewable sources and notes that:

> *"Intermittency also creates the need for a range of technology solutions which may include large-scale interconnection, storage, and dispatchable capacity (e.g., natural gas plants that can generate electricity at times where there is no wind)."*

In March 2019, the Government announced a renewable electricity target of 70% by 2030. Furthermore, the release of the Climate Action Plan in June 2019 has noted a 30% reduction in greenhouse gases by 2030. The proposed development, should favourable permission be given, can aid in contributing towards these targets. More recently, the EPA reported that Ireland is set to fall far short of all of its carbon emissions reduction targets for 2030, despite climate action measures in the National Development Plan (EPA, June 2019). As such, the proposed Croagh wind energy development is critical to helping Ireland address these challenges as well as addressing the country's over-dependence on imported fossil fuels. Along with the 2030 target Ireland must implement drastic changes in order to move to a low carbon economy by 2050.

Chapter 2 of the submitted EIAR outlines the various policies and targets which have been put in place at the various levels of Government both national and international in relation to renewable energy and climate change and sets out the overall need for the proposed development to aid in Ireland meeting its national targets and European commitments in relation to climate change and decarbonisation. The Climate Action and Low Carbon (Amendment) Act 2021, published in March 2021, is a piece of legislation which commits the country to move to a climate resilient and climate neutral economy by 2050. The Programme for Government (June 2020) commits to a 7% average yearly reduction in overall greenhouse gas emissions over the next decade, and to achieving net zero emissions by 2050. This Act will manage the implementation of a suite of policies to assist in achieving this target. The proposed Croagh Wind Farm development, once operational, will contribute to achieving this annual emissions reduction.

2.1.5 GOA 6- Reasonable Alternatives

"The applicant's consideration of reasonable alternatives fails to comply with the requirements of the EIA Directive, thereby undermining an essential goal of the EIA process;"

2.1.5.1 Response to Grounds of Appeal 6- Reasonable Alternatives

The discussion behind this GOA are provided in Section 12.2 of the third-party appeal. In response to this grounds of appeal, the requirements of Article 5(1)(d) of the EIA Directive, as quoted in Chapter 3 of the EIAR, and by the appellant in Section 12.2 of the appeal, must be examined. Article 5(1)(d) states that and EIAR prepared by the developer must contain *"a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment."*

Chapter 3 of the EIAR looks at reasonable alternatives under the following headings:

- 'Do Nothing' Alternative;
- Alternative Locations;
- Alternative Technologies;
- Alternative Turbine Layouts and Development Design; and,
- Alternative Mitigation Measures.

Article 5(1)(d) requires that the alternatives must be relevant to the project and its specific characteristics. In this regard, the relevant and reasonable 'Do-Nothing' Alternative at this Coillte-owned site is the continuation of forestry operations. It should also be noted that while existing forestry operations at the site will cease during the construction of the wind farm, they can and will continue in conjunction with operation of the wind farm.

The principal characteristic of this project is that it is an on-shore, wind energy development that is being brought forward by Coillte CGA. Therefore, offshore sites were not considered as a reasonable alternative for this particular project. Thus, the consideration of the alternative locations is relevant to the characteristics of the project. the project and its specific characteristics.

Chapter 3 of the submitted EIAR sets out in detail the consideration of alternatives and highlights that the site of the proposed development was first identified from a strategic level screening process through the application of Geographical Information Spatial software (GIS), using a number of criteria and stages to assess the potential of a large number of possible sites, on lands within the stewardship of Coillte (c. 441,000 hectares), suitable to accommodate a wind energy development. The GIS database drew upon a wide array of key spatial datasets such as forestry data, ordnance survey land data, house location data, transport, existing wind energy and grid infrastructure data and environmental data such as ecological designations, landscape designations and wind energy strategy designations available at the time. Once strategically identified a finer grain analysis was carried out which considered local

planning policy, amenity designations, telecommunications, habitat sensitivity, residential density, and ground conditions. Following examination of all criteria the site clearly presented as a location that was capable of accommodating wind energy infrastructure while also minimising environmental impact.

The further detailed analysis and assessment provided within the submitted EIAR and NIS, combined with the additional details submitted in response to the further information request clearly demonstrates both the suitability of the site and the landscape to accommodate the Proposed Development. A fact that has been further evidenced in the decisions that have issued from both Sligo and Leitrim Planning Authorities in relation to the proposed development. The combination of the eminent suitability of the site to cater for and accommodate the proposed development with the clear need for Ireland to produce greater quantities of renewable energy to combat climate change and achieve renewable energy targets presents clear justification for the Proposed Development of Croagh Wind Farm.

Chapter 3 of the EIAR goes on to assess alternative technologies. Given the characteristics of the project and the chosen site, it was considered that the only reasonable and relevant alternative was a solar PV development.

The assessment of Alternative Turbine Layouts and Development Design looks at various turbine layouts, roads layouts, and locations of ancillary infrastructure that were borne out of the detailed, constraints-led design process. Chapter 3 of the EIAR also looks at the alternative grid connection options for the Croagh Wind Farm development, assessing and comparing 3 no. reasonable and relevant grid connection nodes within 10km of the proposed development. The connection to Garvagh substation was chosen based on the land availability and environmental considerations and thus was brough forward as part of the planning application.

The appellant alleges that the assessment of alternatives presented in Chapter 3 of the EIAR is too narrow in its focus and does not examine the broader alternatives required to comply with the EIA Directive. The applicant contends that the assessment of alternatives presented in Chapter 3 of the EIAR is both reasonable and relevant to the project and its specific characteristics, therefore complying with Article 5(1)(d), quoted above, and Article 5(1)(f) of the EIA Directive which states, *"any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected."* For clarity, Annex IV of the EIA Directive states that the information provided in an Environmental Impact Assessment Report (EIAR) should include a *"description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."* Therefore, the consideration of alternatives presented in Chapter 3 of the EIAR is fully compliant with the provisions of the EIAR Directive.

2.1.6 GOA 7 & 8- Planning Policy

"The Programme for Government does not support further onshore wind farm development; and a decision by An Bord Pleanála to grant planning permission for the Croagh Wind Farm would be to ignore the clear direction expressed in this agreed policy document;"

"The Northern and Western Region Spatial and Economic Strategy (RSES) provides no policy support for the current planning application, which should therefore be refused;"

2.1.6.1 Response to Grounds of Appeal 7 & 8- Planning Policy

In reviewing the item raised under GOA 7 & 8 it is the consideration of MKO that the appellants have misrepresented the overall narrative of government policy with respect to the development of renewable energy and wind energy in particular. As is expressed under Chapter 2 of the submitted

EIAR there is a wide range of government policy from various levels which clearly outline the overall support for the development of renewables.

The Programme for Government (PfG) which was published in October 2020 and last updated in April 2021 is broadly supportive of the overall development of renewable energy in light of climate change. The PfG notes that '*climate change is the single greatest threat facing humanity*' and sets out that the government will react comprehensively to climate change in a manner which ensures a rapid reduction in and then reversal of our impact on the climate. With respect to energy, it is set out that this will play a central role in the creation of a strong and sustainable economy over the next decade. The PfG sets out that:

> *"The reliable supply of safe, secure and clean energy is essential in order to deliver a phase-out of fossil fuels."*

With respect to renewable energy the government outline that the necessary action to deliver at least 70% will be taken. To achieve this target the following relevant points have been noted under the PfG:

- Produce a whole-of-government plan setting out how we will deliver at least 70% renewable electricity by 2030 and how we will develop the necessary skills base, supply chains, legislation, and infrastructure to enable it. This new plan will make recommendations for how the deployment of renewable electricity can be speeded up, for example the provision and consenting of grid connections.
- Finalise and publish the Wind Energy Guidelines, having regard to the public consultation that has just taken place.

While no specific mention has been raised under the PfG with regards to onshore wind energy the overall broad support for renewable energy is clearly identified. The proposed development along with the existing renewables and future offshore developments will aid in Ireland meeting its 2030 targets. The litany of policy stemming from international, national, regional and local policy which demonstrates the support of onshore wind energy should also be highlighted in this regard. The provisions of Chapter 2 of the EIAR should be considered which set out the wide range of policy support for wind energy development. In this regard we refer to the 2019 Climate Action Plan which highlights that up to 8.2GW total of increased onshore wind capacity is required to achieve the 70% target that has been set. With approximately 4.3GW of installed wind energy capacity currently installed there is a clear requirement for additional onshore wind energy production, specified within national policy.

The National Planning Framework (NPF) forms the top tier of the national planning policy structure, accordingly establishing the policy context for the Regional Spatial and Economic Strategies and local level development plans. The NPF notes that while the overall quality of the country's environment is good it is not without challenges. Furthermore they note that the manner in which we plan for the potential issues is important.

> *"While the overall quality of our environment is good, this masks some of the threats we now face. Key national environmental challenges include the need to accelerate action on climate change, health risks to drinking water, treating urban waste water, protecting important and vulnerable habitats as well as diminishing wild countryside and dealing with air quality problems in urban areas. It is also important to make space for nature into the future, as our population increases."*

Relevant to the proposed development, National Strategic Priority No. 8 – (Transition to a Low Carbon and Climate Resilient Society) seeks to achieve this transition by 2050. The transition will *"shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore*

and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand."

National Policy Objective 55 of the NPF specifically relates to renewable energy, it states that it is an objective to:

> *"Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050".*

In relation to regional policy the Northern and Western Regional Spatial and Economic Strategy (RSES) is discussed under Section 2.3.6.4.1 of the submitted EIAR. A key issue which has been highlighted under the RSES is how climate change will impact on land-use change and increasing demands on natural resources into the future. The strategy recognises that:

> *"There is marked evidence that Ireland's climate is changing with projections for Ireland indicating that there is a likelihood of a rise in sea levels, changes in rainfall events, increased frequency of storm events, changes to air and soil temperate and periods of increased drought."*

Section 4.5.2 of the RSES lists the strategy surrounding '*renewable energy and low carbon future*'. The section opens with the following statement:

> *"Energy is needed for economic growth, and access to affordable, reliable energy is an essential development objective. Historically most incremental energy demand has been met through fossil fuels, however in future that energy will have to be low-carbon and ultimately zero-carbon. Decarbonisation can and needs to happen and it is an objective of the NPF that Ireland becomes a Low Carbon Economy by 2050. This reflects the Government's 2014 National Policy Position on Climate Action and Low Carbon Development and is also a binding EU requirement."*

The RSES considers the region to have a unique natural endowment of ample carbon-neutral, energy supplies that gives an opportunity of forging and leading the new clean economy of the future.

The following regional policy objectives have been included under this section:

- **RPO 4.19:** The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous site selection criteria including environmental matters, and potential grid connections.
- **RPO 4.17**: To position the region to avail of the emerging global market in renewable energy by: [inter alia]
  - stimulating the development and deployment of the most advantageous renewable energy systems" ....
- **RPO 4.18**- Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.

Overall, the development of renewable energy, including wind, is wholly encouraged nationally and within the region under the provisions of the PfG, NPF and RSES respectively, and it is incorrect to allege that the proposed development does not draw support from the associated its policies and objectives. As the Board will be aware the RSES as a strategic regional document does fully support the provision of additional renewable energy within the region and presents clear supporting policy in this regard.

2.1.7 GOA 9- Offshore and Onshore Wind Energy

"Offshore wind farms are now technically achievable, cost effective and are being promoted by Government policies; and therefore a decision by An Bord Pleanála to permit the proposed Croagh Wind would have the effect of locking into the area of the proposed site for some 30 years a technology which is not only rejected by the local community, but will become out-dated within less than a decade;"

2.1.7.1 Response to GOA9- Offshore and Onshore Wind Energy

It is acknowledged that offshore wind farms are now technically achievable, and the applicants fully support their development to aid in the overall decarbonisation of the country's energy supply and their future contribution to the various climate and energy targets. While this is the case, in the first instance it should be noted that offshore wind energy is still a number of years away from being a deliverable asset to the national grid. A number of factors which should be noted in this regard is the overall delivery timeline in terms of an offshore wind energy development being processed through the planning process in the first instance, (the new legislation for which is currently still being written) and the construction timeline of any such project. Additionally, it is the consideration of MKO that it is still a number of years until offshore wind energy projects will be wholly viable given the lack of aspects such as infrastructure surrounding grid for example.

While the overall benefits of offshore wind energy are noted, it is clear that Ireland cannot rely solely on one source for electricity and a range of integrated sources will be required for an adequate supply of energy to be achieved. This includes renewable energy sources from onshore wind energy, offshore wind energy, solar energy, hydro energy and others as they become available. It is clear that a mix of these sources will be required to adequately meet Irelands energy demands. Under the Climate Action Plan 2019 (CAP) the need for a range of renewable energy sources is noted with the following targets being indicated:

> *"Increase electricity generated from renewable sources to 70%, indicatively comprised of:**
>
> - *at least 3.5 GW of offshore renewable energy*
> - *up to 1.5 GW of grid-scale solar energy*
> - *up to 8 2 GW total of increased onshore wind capacity"*

As is clear in the above the CAP highlights the clear need for increased renewables from a range of sources. As is clear the CAP notes a target of 3.5GW for offshore wind. With regards to onshore wind the CAP states an indicative target of 8.2GW, according to Wind Energy Ireland there is a current installed capacity of 4.3GW, Ireland therefore needs to essentially double its current onshore wind energy capacity. The CAP presents clear and unequivocal support for the provision of additional renewable energy generation and presents further policy support for increased wind energy both onshore and offshore.

Currently onshore wind provides by far the largest component of renewable energy to the national grid and this trend is set to continue. We wish to highlight that there are turbines/wind farms commissioned in excess of 20 years ago which are still supplying renewable energy to the national grid and contributing towards Irelands national and international targets to ultimately becoming carbon neutral. We are in a climate emergency, and it is therefore critical that every appropriate means of replacing carbon within the energy generation sector is utilised. In August 2021 the IPCC published the AR6 Climate Change 2021: The Physical Science Basis. This report states:

> *"It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred."*

The report further goes on to note *"unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5 degrees or even 2 degrees will be beyond reach"* which highlights the need for immediate action in the reduction of greenhouse gas emissions at a national level as well as globally. All renewable energy sources and technology should therefore be advanced as appropriate and the development of one does not prejudice or hinder another.

2.1.8 GOA 10- Carbon Balance

"The Board should not grant planning permission for the proposed wind farm for the reason that the peatlands comprising portion of the subject site could be restored to functionality, and the proposal to construct a wind farm on the application site is completely opposed to the climate mitigation policy to rewet, restore and re-vegetate denuded peatlands, so that they can become active in the removal of C02 from the atmosphere;"

2.1.8.1 Response to GOA 10- Carbon Balance

In response to Grounds of Appeal 10, the applicant wishes to point the Board towards the proposals outlined in the *Peatland Enhancement and Biodiversity Management Plan* (included as Appendix 6-5 of the EIAR), which are supplemented by information put forward in Section 2.9 of the Response to Further Information document submitted to Leitrim County Council.

As described in Section 6.7.3.1.2 of Chapter 6 of the EIAR, a site-specific Peatland Enhancement and Biodiversity Management Plan has been prepared as part of the proposed project and is provided in Appendix 6-5 of the EIAR. Section 6.7.3.1.2 of the EIAR states that the Peatland Enhancement and Biodiversity Management Plan *"aims to ensure that there will be no net loss of peatland habitat associated with the proposed development"*. As described in the Peatland Enhancement and Biodiversity Management Plan (BMP), the loss of 0.91 hectares (1.47%) of peatland habitat within the EIAR study area *'will be compensated for in full by felling an equivalent area of land where conifers have been planted on blanket bog habitat (adjacent to Turbine no. T7, see Figure 1.2 of the BMP, Appendix 6-5 of the EIAR). In addition, an area of blanket bog adjoining the proposed restoration area will also be enhanced through the implementation of drain blocking and removal of encroaching conifers'*. The plan also states that *'the combination of enhancing 3.74 hectares of degraded blanket bog (due to drainage and establishing conifers, growing as a result of natural seed dispersal) and locating the proposed compensation area of 0.38 hectares adjacent to this, aims to maximise the potential overall biodiversity benefits associated with the restoration plan'*.

A methodology for calculation carbon losses was published in June 2008 by scientists at the University of Aberdeen and the Macauley Institute with support from the Rural and Environment Research and Analysis Directorate of the Scottish Government, Science Policy and Co-ordination Division. This methodology was refined and updated in 2011 based on feedback from users of the initial methodology and further research in the area. The web-based version of the carbon calculator, which supersedes the excel based versions of the tool, was released in 2016. The tool provides a transparent and easy to follow method for estimating the impacts of wind farms on the carbon dynamics of peatlands and was used to assess the effects of the proposed wind farm in terms of potential carbon losses and savings taking into account peat removal, drainage and operation of wind farm. The model calculates the total carbon emissions associated with the proposed wind farm development including manufacturing of the turbine technology, transport, construction of the development and carbon losses due to peatland disturbance. The model also calculates the carbon savings associated with the proposed wind farm development. The results of this model and the carbon savings calculation are presented in Section 10.2.3 of Chapter 10 of the EIAR.

In total, it is estimated that the proposed development will displace **1,655,640 tonnes** of carbon dioxide over the proposed thirty-year lifetime of the wind farm.

2.1.9 GOA 11- Peat Stability

"There is an elevated risk of peat slides or bog slides being triggered as a result of the construction of a wind farm on the subject site in an area with a high density of historical landslides; there is a significant risk of an unstoppable peat slide occurring on the subject site as a consequence of construction activities, which include excavation for turbine bases and the building of roads for servicing the construction work on the site;"

2.1.9.1 Response to GOA 11- Peat Stability

In response to the appellant's claim that there is a 'significant' risk of a peat slide as a result of construction activities, the applicant wishes to reiterate the findings of the peat stability assessment included as Appendix 8-1 of the EIAR, submitted as part of the planning application and supplemented by additional information included in **Appendix 1** of the Response to Further Information (RFI). The risk assessment included within the Geotechnical and Peat Stability Assessment Report (PSA) indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure at turbine locations and along access roads arising from the construction phase of the wind farm development, provided appropriate mitigation/control measures are implemented. These mitigation/control measures are outlined in Appendix E of the Geotechnical and Peat Stability Assessment Report.

In Section 14.1 of the appeal, the appellant refers to a number of peat slide events including the peat slide at the neighbouring Garvagh Glebe Wind Farm, the peat slide at Derrybrien Wind Farm in Co. Galway and the nearby Shass Mountain peat slide. The Garvagh Glebe peat slide occurred in an area of thin peat on steep ground and was likely caused by the presence of a layer of weak clay below the peat. The excavate and replace roads proposed for Croagh will be founded on a competent stratum, that is to say that if any very soft or soft clay is present beneath the peat it will be removed and replaced with granular fill. This will significantly reduce the risk of a failure occurring within this layer from construction loading and/or vibrations on excavate and replace roads.

Peat strength at other sites of known peat failures (assuming undrained loading failure) are generally very low, for example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from essentially back-analysis, though some testing was carried out, was estimated at 2.5kPa. Derrybrien wind farm is located in county Galway and the failure occurred in 2003. The recorded undrained strengths at Croagh are significantly greater than the lower bound values for Derrybrien indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is significantly less likelihood of failure on the Croagh site.

The peat failure at Shass Mountain (Dawn of Hope) is primarily attributed to an intense rainfall event and the concentration of runoff from forestry drainage into an area of saturated, relatively weak, peat, due to the blockage of some forestry drains. Such intense rainfall events cannot be avoided; however, the impact can be mitigated by ensuring that all existing forestry drainage is maintained during the proposed construction works to avoid blockages and water build-up, especially in deeper peat areas which is what will be completed at Croagh. Concentrated discharge of water onto peat will be avoided with the implementation of the measures outlined in Section 2.5 of the Surface Water Management Plan (SWMP) which is included as Appendix 9 of the RFI document.

The comment in Section 14.2 of the appeal which states that 'localised movement of peat beneath an access road' (taken from Section 2.3 of the PSA) could lead to a 'dramatic and unstoppable peat slide', and that this possibility is 'very likely' is misleading and is taken out of context. The full sentence in Section 2.3 of the PSA states "*Peat failure excludes localised movement of peat that would occur below an access road, creep movement or erosion type events.*" Localised movement of peat below a floated access road would be expected as the peat will settle once a load is applied to the surface of the peat. It should also be noted that only localised sections of floated access road are proposed for the site, and these are located in areas with shallow gradients. In addition, it is proposed that for any areas where floating roads are proposed (Figure 2.1 of the Peat & Spoil Management Plan, Appendix 4.2 of the

EIAR), that confirmatory inspections is carried out by a suitably qualified engineer in advance of the construction to reconfirm that there are no localised areas of weak/saturated peat, evidence of blocked drains, or evidence of existing peat instability. As such, the possibility of localised movement of peat beneath a section of floating road leading to a 'dramatic and unstoppable' peat slide is not considered to be significant.

Furthermore, in relation to other comments raised in Section 14.2 of the appeal regarding T8, T9 and temporary construction compounds 1 and 2, the response to Item 20 of Appendix 3 of the RFI states that "*the PSA report does not quote low factors of safety for turbines T8 and T9 and temporary construction compounds 1 and 2. The factors of safety calculated at these locations are all above 1.3, which is considered to provide a satisfactory factor of safety against failure, as noted in Section 7.3 of the Peat Stability Report.*" Therefore, relocation of these infrastructural elements is not considered necessary.

The planning authority were satisfied that the issue of peat stability had been adequately addressed and is within the accepted industry standard factors of safety. Indeed, the Leitrim County Council Planning Report states, in relation to land, soils and geology (which includes the peat stability assessment) that the planning authority were "satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and best practice measures."

On the topic of factor's of safety, it is noted from the Capital Projects Department's (CPD) submission on the Response to Further Information documentation that queries are raised in relation the low factors of safety (below the recommended minimum FoS of 1.3) that were recorded at 7 no. locations across the site. The reason that these lower factors of safety arose during the calculations was clarified as part of the response to Item 25 of Leitrim County Council's Request for Further Information. However, the CPD requested that proof be provided by the applicant to show that the factors of safety at the 7 no. locations, where the FoS was calculated to be less than 1.3 (when using lower bound peat strength's), were in fact greater than 1.3 when actual location specific data was used. The CPD also recommended that this request be attached as a condition of any grant of planning permission which it has (Condition No. 18 of the Leitrim County Councils's Notification of a Grant of Planning Permission).

We wish to address this query as part of the response to this appeal. An additional site visit, to gather site-specific peat depth, slope and shear strength data from these 7no. locations, was carried out by Fehily Timony on the 5th August 2021. Following this, this data was then used to carry out an updated peat stability assessment for these locations. The updated stability assessment has recorded FoS results at each location of in excess of 1.3, which is considered acceptable. This indicates that there is a low risk of peat failure associated with the slopes at these seven locations. Further detail in relation to the updated peat stability assessment for these locations in included as **Appendix 1** of this document.

2.1.10 GOA 12- Hydrology - Heavy Rainfall Event

"There is a non-negligible risk that an exceptionally heavy rainfall event could overwhelm the proposed surface water containment system; and, if a peat slide were to occur, it could not be effectively controlled and stopped before large quantities of peat fibre and water spread downslope to contaminate sensitive downstream fishery waters;"

2.1.10.1 Response to GOA12- Hydrology – Heavy Rainfall Event

All drainage systems (for wind farms, road schemes, carparks, housing estates etc) are designed to a certain return periods, and while extremes may be considered in terms of surcharging or for flood prevention/control, there is no standard requirement to design drainage systems for wind farms to deal with extreme events. The approach taken for the proposed wind farm development to limit the effects

on water quality of extreme events is to have a multi-element Sustainable Drainage System [1] (SuDS) with no reliance on any one drainage/water quality control element. This approach creates redundancy in the drainage system, and therefore allows for more effective operation during variations in runoff flows (i.e., low flow through to high flow). Construction stage monitoring at wind farm sites indicates that there is a very low frequency of exceedances of Environmental Quality Standards for surface quality in downstream watercourses. While there may be concerns raised with regards to water quality impacts from wind farms, these concerns are not borne out by evidence of water quality impacts or changes to Water Framework Directive (WFD) status in receiving water downstream of wind farm sites arising from construction works.

During extreme rainfall events, water quality in streams and rivers across entire catchments can be reduced periodically due to high levels of runoff from natural erosion. Upland streams and rivers, by their very nature, are natural vectors for sediment transport and erosion. They do not have pristine water quality 100% of the time. As a result, aquatic species have an ability to tolerate and survive these extreme periodic events.

As stated above, the risk assessment included within the Geotechnical and Peat Stability Assessment Report (PSA) indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure at turbine locations and along access roads, provided appropriate mitigation/control measures are implemented. The contingency measures to deal with a peat slide, outlined in Section 12 of Peat & Spoil Management Plan (included as Appendix 4-2 of the EIAR), are considered best industry practice.

2.1 .11 GOA 13- Peat Stability

"The applicant's response to the risk of a peat slide is unsatisfactory, and the applicant's proposed responses to an imminent peat slide event are inadequate to prevent significant downslope or down-gradient movement of a large mass of peat and water;"

2.1.11.1 Response to GOA 13- Peat Stability

The 'proposed responses to an imminent peat slide' are not considered to be inadequate to prevent the mass movement of peat leaving the site. Check barrages have been successfully used in the past to mitigated and retain peat slides. The check barrage does, however, allow water to flow through the barrage, as to impound a large volume of water is considered to be inadvisable due to the possibility of a sudden release of this water and the resulting damage that this would cause.

It should also be noted that the inclusion of contingency measures to deal with a peat slide within Section 12 of Peat & Spoil Management Plan (included as Appendix 4-2 of the EIAR) is considered best industry practice. This does not constitute the 'recognition of such a risk'.

The appellant states that 'the risk is significant' but provides no evidence to support this assertion. The risk assessment undertaken as part of the robust and thorough peat stability assessment for the Croagh Wind Farm development indicates a 'negligible' to 'low' risk of peat failure across the site, as discussed in the Geotechnical and Peat Stability Assessment Report (included as Appendix 8-1 of the EIAR and supplemented by information provided in Appendix 3 of the RFI document).

The risk is also not considered to be 'uncertain', again, we refer to the Geotechnical and Peat Stability Assessment Report and the supplementary information provided in the RFI that details the robust risk assessment and stability analyses undertaken as part of the assessment.

It is also noted that Leitrim County Council were satisfied that the issue of peat stability had been adequately addressed and is within the accepted industry standard factors of safety. Accordingly, the

[1] https://www.susdrain.org/delivering-suds/using-suds/background/sustainable-drainage.html

application documentation fully considers and assesses the ground conditions within the proposed development site and sets out detailed mitigation measures to further minimise risk. All the assessments and analyses presented demonstrate that the proposed development can be provided with appropriate mitigation measures and constructure practices as fully detailed.

2.1.12 GOA 14- Hydrology – Settlement Ponds

"The applicant's proposed "stilling ponds" or "settlement ponds" would not work effectively, or would fail to work, when confronted with suspended peat fibres which tend not to sink in water, or which sink very slowly so that they are not precipitated out;"

2.1.12.1 Response to GOA 14- Hydrology – Settlement Ponds

In relation to this item peat and fine subsoil material will be excavated and transported to peat repositories on site. Settlement ponds at the peat repositories are designed to allow 24hrs of retention to allow settlement of fine silts to 4 microns in line with EPA design recommendations (EPA, 2006). Our experience from other wind farm construction sites is that peat material is not the sole major issue for water quality protection. Peat is either excavated just ahead of road placement, and therefore exposure is limited to small areas at a time, or it is covered by floating road construction and therefore there is limited exposure. While the more significant concern is in fact the access track runoff (crushed stone and quarry material with fines) and erosion of exposed subsoil material actually generates the larger volumes of medium and fine sediments requiring treatment/removal. The design approach used is therefore appropriate to protect water quality from the proposed wind farm development.

2.1.13 Grounds of Appeal 15- Hydrology – Water Quality

"The proposed wind farm development could have a significant adverse impact on water quality and the wider environment, and has the potential for cumulative impact because of a cluster of existing nearby wind farms;"

2.1.13.1 Response to GOA 15- Hydrology – Water Quality

It is fully acknowledged that the protection of surface water quality both during construction and operation of the wind farm development is one of the most important elements of the proposal. For this reason, a significant level of detail has been provided in both the EIAR (Chapter 8 and Chapter 9) and in Appendix 2 of the Response to Further Information (RFI) document (HES, 2021) in relation to this issue.

Hydro Environmental Services Ltd. (HES) were, at all times during the design stage and assessment stage of this development, acutely aware of the sensitivities of downstream watercourses/receiving waters. This is stated at Section 9.3.16 of the EIAR where surface water receptors are identified as "very sensitive".

The updated drainage plans submitted with the RFI document (Appendix 2) are very detailed, and as noted in the RFI response are of a construction stage design level, and also were intended to comply with Inland Fisheries Ireland (IFI) requirements, as part of their submission on the planning application. HES RFI Response Report Section 3, pg 38 (Appendix 2 of RFI) states:

> *"Comprehensive drainage proposals are presented in this RFI response for the Croagh Wind Farm development. The Updated Drainage Plans are backed up with supporting calculations. The details provided herein are comprehensive, comply with IFI requirements, and are of a detailed construction phase design standard".*

While the drainage plans are very detailed, they are not complex. Indeed, similar plans have been approved by An Board Pleanála for several other wind farm sites (e.g. Glenmore WF: ABP Ref: PL 03.245392 / Clare Co. Co. Planning Ref: 14/575; Cloncreen WF: 19.PA0047; Ardderroo WF: ABP Ref: 303086-18), and detailed plans such as these have been implemented successfully at constructed wind farm sites (e.g. Glenmore WF: ABP Ref: PL 03.245392 / Clare Co. Co. Planning Ref: 14/575; Cloncreen WF: 19.PA0047).

All drainage proposals require management and monitoring. These requirements are not unique to the Croagh Wind Farm drainage proposal. For example, drainage systems at a forestry site, housing estate or a supermarket carpark, would require management and maintenance. Silt traps would need to be cleaned out and petrol interceptors would need to be desludged and inspected. Indeed, planning conditions to ensure management and monitoring of drainage systems are often included in planning consent conditions.

Management and monitoring of drainage systems is good practice and ensures the highest level of functionality. The inference in Section 15 of the appeal that such a requirement [for maintenance and monitoring] as some form of deficiency is illogical.

The key period for risk to water quality is during the construction phase of the proposed development. This point is acknowledged and addressed comprehensively in Chapter 9 of the EIAR and Appendix 3 of the RFI document. While there are still water quality risks during the operational phase of the development, these are greatly reduced from the construction stage as the site conditions are benign/stable and there is limited site traffic.

The Board should note that a significant number of wind farm sites have been constructed at forestry and blanket peat sites. These projects have generally used the drainage design elements that have been proposed for the Croagh Wind Farm and we are not aware of any surface water quality effects provided the drainage system is implemented and correctly maintained.

We note the references and quotations from to the Executive Engineers Report from the Environment Department of Leitrim County Council, dated 27/05/2021. While the report notes a series of concerns relating to water quality and WFD status, these concerns were also expressed by Leitrim County Council and Inland Fisheries Ireland at in the Request for Further Information, and all these concerns have been addressed in detail in Chapter 8 and Chapter 9 of submitted EIAR and Appendix 2 the RFI document (HES, 2021).

All other local permitted wind farms are constructed, except for Tullynamoyle Extension (4 no. permitted turbines). Even though the Tullynamoyle Extension turbine locations are within the same river catchments, they are remote from the Croagh WF site (no in the Garvogue catchment and 2 no. in the Shannon catchment), and as such there is negligible potential for cumulative impacts on water quality to occur. As the critical period for cumulative impacts are during the construction phase, the potential for Croagh WF to create cumulative water quality impacts with other WFs is negligible.

2.1.14 Grounds of Appeal 16- Hydrology – Nutrient Loading

"The proposed wind farm development would create a high risk of increasing the nutrient and suspended solid loading in the downstream receiving waters and receiving environment;"

2.1.14.1 Response to Grounds of Appeal 16- Hydrology – Nutrient Loading

The response in relation to effects on downstream waters and receiving environments, including fisheries, are similar to that outlined above in Section 2.1.11.1 in relation to SuDs drainage systems and Section 2.1.13.1 in relation to settlement pond design standards as the points made overlap.

Detailed measures with regards to surface water quality protection (sediment and nutrient loads) from tree felling are outlined in the submitted EIAR at Section 9.5.3.1.

Again, the Board should note that a significant number of wind farm sites have been constructed at forestry and blanket peat sites. These projects have generally used the drainage design elements that have been proposed for the Croagh Wind Farm and we are not aware of any surface water quality effects provided the drainage system is implemented and correctly maintained.

2.1.15 Grounds of Appeal 17 & 18- Ornithology

"The amount of bird mortality caused by collision with turbine blades could be significant for wintering bird species which form part of the Irish breeding population, and the applicant's estimate of 22 collisions per year is very significant, and is certainly not negligible;"

"The are of the proposed wind farm site is a foraging ground for hen harrier, a protected and endangered species;"

2.1.15.1 Response to Grounds of Appeal 17- Ornithology

It is noted in relation to impacts on wintering golden plover, and all other key other key ornithological species that a comprehensive impact assessment is provided in Section 7.10.2.2 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

Notwithstanding the above, as it was requested by the Further Information Request issued by Leitrim and Sligo County Councils a revised assessment was provided which addressed the concerns raised in relation to breeding golden plover, i.e. the summer population. This impact assessment provides a robust justification for the assessment of collision risk as a **Very Low** effect significance (as per Percival, 2003 criteria) and Long term Imperceptible Effect (as per EPA, 2017 criteria). The impact assessment set out in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions that are presented in Section 7.10.2.2 of the EIAR.

It is noted in relation to impacts on hen harrier that a comprehensive impacts assessment is provided in Table 7.10.2.3 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

It is further noted that additional information was provided to Leitrim and Sligo County Councils in relation to impacts on hen harrier at the subject site. The impact assessment set out in Table 2-9 and Table 2-2 of the Further Information Response Pl.20/120 (Leitrim County Council) and PL.20/251 (Sligo County Council) (respectively) further corroborates the conclusions of no significant effect that are presented in Section 7.10.2.3 of the EIAR.

DAU Submission on Further Information Response

The applicant has reviewed all submissions that have been lodged by third parties and the various statutory consultees. Following this review, it is considered that the initial application documentation combined with the response to the further information request issued by the Planning Authority and this Response to the Grounds to Appeal comprehensively deals with any issues raised. In the interests of completion and clarity, however, the applicant is taking this opportunity to provide further discussion in relation to the items that have been raised in the submission from the Development Applications Unit (DAU) which incorporates the consideration of the National Parks and Wildlife Service (NPWS).

Whooper Swan

The DAU submission acknowledges that the overall number of observations is low however states the following:

Impacts associated with the proposed development in the context of creating barrier effect should be considered in combination with other wind farm developments in the vicinity.

It is noted in relation to impacts on whooper swan that a comprehensive impact assessment is provided in Section 7.10.2.1 and cumulative effects are assessed in Section 7.18 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement (including barrier effect) or collision mortality.

Golden Plover

The DAU submission states the following:

The predicted collisions presented in the FI, i.e. 0.088% of the Irish breeding population, does not take account of the increased decline since the Lauder and Donaghy's (2008) report, and as stated in the recent survey of the Owenduff/Nephin Complex in Co. Mayo.

It is noted in relation to impacts on wintering golden plover that a comprehensive impact assessment is provided in Section 7.10.2.2 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

Notwithstanding the above, as it was requested by the Further Information Request issued by Leitrim and Sligo County Councils a revised assessment was provided which addressed the concerns raised in relation to breeding golden plover, i.e. the summer population. This impact assessment provides a robust justification for the assessment of collision risk as a Very Low effect significance (as per Percival, 2003 criteria) and Long term Imperceptible Effect (as per EPA, 2017 criteria). The impact assessment set out in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions that are presented in Section 7.10.2.2 of the EIAR.

The DAU highlighted that the breeding population of golden plover has continued to decline since the last published population estimate (Lauder and Donaghy, 2008). While is it acknowledged that there has been continued declines in the breeding population of golden plover the rate of predicted collisions, as a result of the proposed development, is very low: 0.088 theoretical/potential collisions per year. This equates to less than three birds throughout the 30-year lifetime of the wind farm. As detailed in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) this rate of mortality is not predicted to significantly impact golden plover.

Hen Harrier

The DAU submission states the following:

While the proposed development site is dominated by mature conifer plantation, there is suitable habitat in pockets within the plantation and surrounding the development site which is of importance to hen harrier.

It is noted in relation to impacts on hen harrier that a comprehensive impacts assessment is provided in Table 7.10.2.3 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

It is further noted, that additional information was provided to Leitrim and Sligo County Councils in relation to impacts on hen harrier at the subject site. The impact assessment set out in Table 2-9 and 2-2 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions of no significant effect that are presented in Section 7.10.2.3 of the EIAR.

Monitoring

The DAU submission states the following:

The Department recommends that the provision of robust monitoring protocols for all the importance bird species (e.g. hen harrier, golden plover, whooper swan and curlew) identified during surveys. The use of tracking technology could be considered to monitor site usage and impacts going forward.

It is noted that a comprehensive monitoring programme is set out in Appendix 7-7 of the EIAR and is already proposed. The programme of works will monitor parameters associated with collision, displacement/barrier effects and habituation and these surveys will be scheduled to coincide with Years 1, 2, 3, 5, 10 & 15 of the life-time of the wind farm. Monitoring measures are broadly based on guidelines issued by the Scottish Natural Heritage (SNH, 2009 & 2017). The following individual components are proposed for monitoring years:

- Monthly flight activity surveys: vantage point surveys
- Distribution and abundance surveys: breeding wader to a 500m radius of the development area, breeding hen harrier surveys and winter hen harrier roost surveys to a 2km radius of the development area.
- Targeted bird collision surveys (corpse searches) will be undertaken with training dogs. The surveys will include detection and scavenger trials, to correct for these two biases and ensure the resulting data is robust.

Notwithstanding the monitoring measures set out above as detailed in the submitted EIAR, it is noted that in the event of favourable consideration it is anticipated that a condition(s) will be imposed to ensure adequate on-going monitoring is carried out.

2.1.16 Grounds of Appeal 19- Planning Decision

"The 34 conditions attached to the decision made by Leitrim County Council to grant planning permission for the proposed wind farm, are not adequate to provide the necessary level of protection to the environment generally, to sites of European Interest (Natura 200 sites: SACs and SPAs), to wildlife, and to the well-being and health of local residents;"

2.1.16.1 Response to GOA 19- Planning Decision

In reviewing the 34 conditions which have been attached to the grant of permission by Leitrim County Council MKO are of the opinion that these are wholly appropriate, clear and strike an appropriate

balance between protection of amenities and environmental while also facilitating the development of a renewable energy facility at this location. As will be clear to the Board, the conditions which have been attached by Leitrim County Council are generally consistent with those attached to wind farm permissions, however it is noted that as the Board will be considering this matter "de novo", that in the event of favourable consideration it will provide its own suite of conditions that will replace those set out by the Planning Authority. Notwithstanding this, the conditions attached to the decision of the Planning Authority set appropriate limits on a number of aspects including overall operational period of the wind farm, noise, shadow flicker, construction timing, etc. The conditions also ensure that all relevant mitigation is carried out and that various forms of post consent monitoring is undertaken (including shadow flicker, noise, archaeological, birds etc).

While it is the opinion of MKO that Leitrim County Council have produced a comprehensive decision we also note that the subject planning application has been subject to both first part appeals and third party appeals and the matter of the wording and nature of conditions to be imposed will be decided by the Board in the event of favourable consideration.

2.1.17 GOA 20- Layout

"The layout and description of the proposed wind farm has not been changed in any significant way, despite a number of serious issues and questions raised in Leitrim County Council's detailed request for further information;"

2.1.17.1 Response to GOA 20- Layout

While it is acknowledged that the Planning Authority issued a very detailed further information request in relation to the Proposed Development, it is unclear which "*serious issues and questions"* raised in the request the appellant is referring to that would require a change to the layout and description of the Croagh Wind Farm development

The Further Information request that issued was extensive, however, the items sought were predominantly matters of detail that requested further clarity or more detailed analysis. The comprehensive further information response that was submitted addressed all the matters raised in full (as noted in the planning report accompanying the decision to grant permission), and the various internal sections within the planning authority and various statutory bodies, considered the responses appropriate and requested a range of conditions to be attached in any future grant of permission.

2.1.18 GOA 21 & 22- Noise

"If the Croagh Wind Farm were to be granted planning permission by An Bord Pleanála, the combined noise levels would become a significant nuisance, especially as the noise would become more continuous;"

"Significant noise nuisance is already occurring as a result of the nearby existing wind farm; the nuisance problem has not been resolved, and if the proposed wind farm were to be permitted, the combined effects of continuous noise would become worse;"

2.1.18.1 Response to GOA 21 & 22- Noise

The noise impact assessment submitted takes full account of the cumulative noise impact of Croagh wind farm, Gavagh Glebe and Black Banks wind farms operating together. The assessment and methodology undertaken is in accordance with the Institute of Acoustics Good Practice Guidelines (IoA GPG) and is presented in the EIAR has demonstrated that the cumulative turbine noise levels shall comply with the relevant guidelines.

The submitted noise impact assessment is robust and has been carried out in line with current standards and best practice guidelines (i.e. Planning Guidelines for Wind Development 2006, ETSU-R-97 and IoA Good Practice Guidelines). The submitted noise and vibration assessment (Chapter 11 of the EIAR) demonstrates that the Proposed Development can operate within the noise criteria derived from the relevant guidance and accordingly can be provided without significant effect on the amenities of any sensitive receptors.

Predicted noise levels are also in compliance with Condition 8 of the decision to grant planning permission which is as follows:

> *8. The operation of the proposed development, by itself or in combination with any other permitted wind energy development, shall not result in noise levels, when measured externally at nearby noise sensitive locations, which exceed:*
>
> *a) Between the hours of 0700 and 2300:*
>
> *i. greater than 5 dB(A) L90,10min above background noise levels, or 45 dB(A) L90,10min, at wind speeds of 6 metres per second or greater,*
>
> *ii. 40 dB(A) L90,10min at all other wind speeds,*
>
> *b) 43 dB(A) L90,10min at all other times,*
>
> *where wind speeds are measured at 10 metres above ground level.*
>
> *Prior to commencement of development, the developer shall submit to, and agree in writing with, the Planning Authority a noise compliance monitoring programme for the subject development, including any mitigation measures such as the de-rating of particular turbines. All noise measurements shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with Respect to Community Response," as amended by ISO Recommendations R 1996-1. The results of the initial noise compliance monitoring shall be submitted to, and agreed in writing with, the Planning Authority within six months of commissioning of the wind farm. The developer shall outline proposed measures to be taken to address any recorded non-compliances. A similar report may be requested at reasonable intervals thereafter by the Planning Authority.*
>
> *Reason: To protect the amenities of property in the vicinity of the site*

The condition is in keeping with the noise criteria set out in Section 11.4.2 of the EIAR.

As required by the planning condition, prior to the commencement of a noise compliance monitoring campaign, a written methodology will be submitted for approval to the Leitrim County Council, stating clearly how the wind, noise and turbine data will be processed, in order to ensure that the Croagh Wind Farm is operating within its planning condition limit for noise outlined in Condition 8 above.

The assessment carried out has therefore fully considered the potential for cumulative noise impacts and this has been addressed in full within the application documentation. Furthermore, it should be noted that the Planning Authority are satisfied with the noise assessment that has been carried out as part of the EIAR and attached an appropriate condition to ensure the Croagh Wind Farm development will not give rise to an adverse impact on any noise sensitive receptors.

It is fully acknowledged that the Board will be reviewing this matter in full and in the event of favourable consideration will impose its own noise condition which will ensure that noise sensitive receptors will be protected, and adverse impacts will not arise.

2.1.19 GOA 23- Landscape Turbine Size

"The proposed wind farm is disproportionate in size for the planned site; and, when considered in combination with other nearby wind farms, would have the effect of transforming the landscape so as to detrimentally alter its character;"

2.1.19.1 Response to GOA 23- Landscape Turbine Size

In response to grounds of appeal 23 we wish to reiterate that the subject site is located in an area with a history of wind energy development and that wind turbines have been a feature of this landscape for many decades. The basic argument that is being made in this instance is that the introduction of a wind turbine which is larger than those already existing would dramatically alter the landscape character. Please note that a full landscape assessment has been carried out as part of the proposed planning application, this can be viewed under Chapter 12 of the submitted EIAR. The landscape assessment included an overall cumulative assessment, which concluded that:

> *"Although, it was found that the proposed turbines would add to the cumulative landscape status, it would not change the character of the individual LCAs in terms of wind energy and therefore the cumulative landscape effects are considered Low."*

Additionally, we wish to note the conclusion surrounding the cumulative visual effects (refer to Section 12.8.4 of the EIAR) in which it was noted that:

> *"No cumulative effects will arise at two viewpoints. In the remaining 15 viewpoints it was found that the increase in spatial extent was predominantly 'Slight' to 'Moderate' While complete visual separation of the proposed turbines from the permitted turbines is achieved in one viewpoint, mostly 'Slight' to 'Moderate' separation was seen. The assessment of the perceived difference of scale was also predominantly 'Slight' to 'Moderate' with one viewpoint showing a 'Negligible' difference in scale. At no viewpoint was the difference in scale perceived as 'Substantial'."*

As is clear from the above the proposed development would not change the character of the individual landscape character. Additionally, as is clear the perceived difference of scale was also predominantly slight to moderate showing the overall lack of impact. As can be assessed the appellants have no basis for their claim that the scale of the subject site would transform the character of the area. We also wish to note the findings of the Planning Authority in this instance, in assessing the general concern to which this grounds of appeal relates, the following was noted within the Leitrim County Council planning report:

> *"The arguments that the introduction of a wind farm in a landscape which already has a considerable number of wind farms (70 no. turbines located along a ridge that straddles the Leitrim, Roscommon and Sligo borders) can be readily assimilated without causing an adverse cumulative effect can be countered by an argument that the introduction of larger turbines will not be read as one development type in the landscape. However, on balance, I would tend to be swayed by the first of these arguments."*

Following on from the above the planning report recognised that the Croagh wind farm development would be located in a gap between existing wind farms, it was set out that '*the visual impact is not to extend the extent of windfarms, so the visual impacts is not to extend the extent of windfarms in the view but rather consolidate*'. Overall, it was the conclusion of Leitrim County Council with respect to landscape that:

> *"I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and best*

practice measures. I am satisfied therefore that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape and visual."

Additionally, for full clarity the following was also the opinion of Sligo County Council with respect to the subject site under their Planning Report:

"I am of the opinion that the proposal will have a local moderate visual impact and from more distance views a not significant to slight visual impact. This impact has to be balanced and seen against the fact that the landscape is a highly moderated working landscape and against the need to develop key strategic infrastructure to meet the strategic aims of national & local policy".

Overall, the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate having been considered so by both Leitrim County Council and Sligo County Council and as demonstrated within the LVIA contained in the EIAR.

2.1.20 GOA 24- Landscape – Scenic Amenity

"The scenic and elevated area within which the proposed wind farm would be located already hosts too high a concentration of very large wind turbines; and, that if more turbines were to be permitted, the natural environment and the quality of the landscape would be irretrievably damaged;"

2.1.20.1 Response to GOA 24 – Scenic Amenity

Grounds of appeal 24 relates to the overall cumulative impact of the proposed development and its impact on the receiving landscape. In this regard we wish to reiterate the general argument outlined under the response to grounds of appeal 23 (above) in which it was demonstrated that the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate with the impacts being generally '*slight to moderate*'. Overall, as is outlined within the landscape assessment undertaken as part of the proposed planning application:

"...No cumulative effects will arise at two viewpoints. In the remaining 15 viewpoints it was found that the increase in spatial extent was predominantly 'Slight' to 'Moderate' While complete visual separation of the proposed turbines from the permitted turbines is achieved in one viewpoint, mostly 'Slight' to 'Moderate' separation was seen...

The proposed development will have a very limited cumulative impact on the receiving landscape. This is recognised by both Sligo County Council and Leitrim County Council who in their assessments outline that:

- Leitrim County Council
  "...I am satisfied therefore that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape and visual."
- Sligo County Council
  "I am of the opinion that the proposal will have a local moderate visual impact and from more distance views a not significant to slight visual impact...".

Again, we wish to reiterate to An Bord Pleanála that the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate having been considered so by both Leitrim County Council and Sligo County Council.

2.1.21 GOA 25 - Tourism

"The large scale and heights of the proposed turbines are likely to undermine tourism in North Leitrim, and such potential adverse impacts on tourism must be taken into account by An Bord Pleanála; and,"

2.1.21.1 Response to GOA 25 - Tourism

The potential for significant effects on local tourism (and its impact on the local economy) is addressed in Chapter 5 of the submitted EIAR. Section 5.3 of the submitted EIAR provides an overview of tourism features within the wider vicinity of the Proposed Development. Section 5.3.2 notes that there are no key tourist attractions pertaining to the site of the proposed wind farm development and goes on to provide an extensive list of key tourist attractions within both counties. At the outset, it should be noted that the Croagh Wind Farm development is proposed in an area with an established history of wind energy development which currently co-exists with a strong, local tourism sector and accordingly the proposed development is not introducing a new or novel feature into the landscape. Section 5.3.3 provides a summary of multiple surveys carried out in Ireland and Scotland which looked at the relationship between tourism, the development of wind farms and tourist's attitudes towards wind farms. Under 'Wind Farms and Tourism Trends in Scotland' 2016 it was demonstrated that there is no relationship between the development of onshore wind farms and tourism employment at the level of the Scottish economy, at local authority level, nor in the areas immediately surrounding wind farm development. Further to this in a study carried out by Fáilte Ireland which assessed whether or not the development of wind farms impacts on the enjoyment of the Irish scenery by holidaymakers' results indicate that most visitors are broadly positive towards the idea of building wind farms in Ireland. With regard to the perceived impact of wind farms on sightseeing, the Fáilte Ireland report states:

> *"Despite the fact that almost half of the tourists interviewed had seen at least one wind farm on their holiday, most felt that their presence did not detract from the quality of their sightseeing, with the largest proportion (45%) saying that the presence of the wind farm had a positive impact on their enjoyment of sightseeing, with 15% claiming that they had a negative impact."*

Evidence to support the positive effect, in relation to the attraction of greater numbers of visitors to an area due to a wind energy development, can be seen with the existing Mount Lucas Wind Farm located in Co. Offaly. Since the winds farm's amenity walkway/cycleway facilities were opened to the public in 2016, over 180,000 visitors have used the facilities including 45,000 visitors in 2020 alone. The Mount Lucas Wind Farm is a larger development and includes a visitor centre, and while it is not intended that the proposed Croagh Wind Farm will accommodate the same number of visitors, it is anticipated that the provision of recreation and amenity infrastructure associated with the Proposed Development will generate interest and amenities for locals and visitors to the area alike.

As stated in Section 5.9.3 of the EIAR, currently there are currently no dedicated amenity walkways within the site of the proposed development. As part of the proposed development design, approximately 3.75km of amenity pathways including walkways and cycleways and a 24-car space carpark will be provided. Sections of new site roads will be developed and promoted for walking activities in additional to dedicated amenity walkways. There will be approximately 3.75 kilometres of dedicated amenity walkways constructed and linking into wind farm site roads. These dedicated areas will provide a safer visitor experience and open the site up to locals, tourists, trail runners etc. Full details of the proposed recreation and amenity infrastructure is included in Section 4.6 of this EIAR.

Overall, it is not considered that the proposed development would have an adverse effect on tourism in the vicinity of the proposed development.

2.1.22 Grounds of Appeal 26

"The Wind Energy Development Guidelines, 2006, which have not been subject to strategic environmental assessment, do not comply with EU law, and should not be used by An Bord Pleanála as a basis for granting planning permission for the proposed Croagh wind farm; while the Draft Revised Wind Energy Development Guidelines, published in December 2019 by the Department of Housing, Planning & Local Government, have neither been finalised nor adopted."

2.1.22.1 Response to Grounds of Appeal 26

With respect to the above point, we wish to note that at time of writing the Draft Guidelines have not yet been adopted, and the relevant guidelines remain those published in 2006. Notwithstanding this, and as previously noted in Section 2.2.7.4 of Chapter 2 of the EIAR, due to the timelines associated with the planning process for renewable energy projects it is possible that a version of the draft guidelines may be finalised during the consideration period for the current proposed development. Towards this end, it is anticipated that the Project will be capable of adhering to the relevant noise and shadow flicker standards.

The Proposed Development has been designed to minimise impacts on all sensitive environmental receptors and media. It is noted that the Board must now consider the merits of the proposed development on the basis of all relevant applicable planning policy, guidelines and parameters including the consideration of the proper planning and sustainable development of the area. It should also be noted that all elements of the proposed development have been assessed in terms of likely significant effects in and of themselves in the context of the surrounding environmental factors and the EIAR and NIS submitted provide clear and succinct analysis of all the relevant issues which will allow the Board to complete the relevant assessments and support its decision in relation to the Proposed Development.

3. CONCLUSION

This Response to the Third-Party Appeal as lodged in respect of planning permission ref: 20/120 seeks to provide the Board with relevant information to assist their determination of the Appeal. The Board have sufficient information available to make a decision with respect to the proposed development which demonstrates that the project as a whole is appropriate.

The proposal has been considered in full by the Planning Authority who have granted planning permission for the development, concluding:

> *"it is considered that subject to compliance with the conditions set out below that the proposed development would accord with European, national, regional and local planning and related policy, it would not have unacceptable impact on the landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, will not adversely affect the archaeological or natural heritage of the area, and it would be acceptable in terms of traffic safety and convenience. The proposed development will make a positive contribution to Ireland's national strategic policy on renewable energy and its move to a low energy carbon future."*

In respect of the current application subject of this appeal, the Council have assessed the proposal and any potential impact on the site and its environs, and sensitive receptors and concluded that the proposed development is in accordance with proper planning and sustainable development of this area. Having considered all of the above, it is concluded that there is no basis of the grounds of appeals made and that the proposed development is entirely suitable.

We therefore request that the Board uphold the Planning Authority's decision and grant permission for the development as set out.

APPENDIX 1

STABILITY ANALYSIS OF SPECIFIC LOCATIONS AS PER LEITRIM COUNTY COUNCIL'S PLANNING CONDITION 18 (P. 20/120)

FEHILY TIMONEY

CONSULTANTSI N ENGIN EERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Stabil ity An aly si's of Specif ic L ocation s as per Lei tri m Coun ty C ouncil's Planni ng Conditi on 1 8 (P. 20/1 20)

1. STABILITY ANALYSIS OF SPECIFIC LOCATIONS AS PER PLANNING CONDITION 18

Planning Condition 18 issued by Leitrim County Council states "Prior to the commencement of development, the developer shall demonstrate to the satisfaction of the Planning Authority, on the basis of the submission of detailed design / on site surveys that the 7 no. locations identified in the Peat Stability Assessment where the Factors of Safety for slopes were below the recommended minimum level of 1.3 calculated on the basis of LIDAR surveys have acceptable Factors of Safety above this minimum accepted level."

The following summarises a stability check undertaken at the seven locations identified in the Peat Stability Assessment Report where a Factor of Safety of less than 1.3 (but more than 1) was recorded. This stability analysis has been undertaken using the same methodology as in Chapter 7 of Appendix 8-1 of the EIAR, Geotechnical & Peat Stability Assessment.

1.1 Material Properties

A site visit was undertaken on 05th August 2021 to visit the seven locations in order to record peat depths, slope angles and peat strengths at each individual location. These records have been used in this updated assessment of these seven locations.

Table 1.1: Factor of Safety Results (Undrained Condition)

Location	Original Label	Easting	Northing	Peat Depth (m)	Slope Angle (degrees)	Peat Strength (kN/m²)
WP001	mk0v1_129	584319	823738	0.8	10	38
WP002	nol1_334	584078	824021	0.7	12	42
WP003	nol1_343	584717	823874	1.0	6	42
WP004	P41	584521	823899	0.4	15	38
WP005	P43	584374	823774	1.2	6	30
WP006	P47	584145	824040	1.2	12	45
WP007	agec_WP045	585969	822582	2.0	6	16

1.2 Stability Analysis

To assess the factor of safety for a peat slide, an undrained (short-term stability) and drained (long-term stability) analysis has been undertaken to determine the stability of the peat slopes at proposed settlement pond locations.

1. The undrained loading condition applies in the short-term during construction and until construction induced pore water pressures dissipate.
2. The drained loading condition applies in the long-term.

For the stability analysis two load conditions were examined, namely:

Condition (1): no surcharge loading
Condition (2): surcharge of 10 kPa, equivalent to 1m of stockpiled peat assumed as a worst case.

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The undrained analysis for load condition 2 is considered the most critical load case as most peat failures occur in the short term upon loading of the peat surface. The results from the seven locations are summarised in Table 1.2.

Table 1.2: Factor of Safety Results (Undrained Condition)

Location	Original Label	Easting	Northing	Factor of Safety for Load Condition	
				Condition (1)	Condition (2)
WP001	mk0v1_129	584319	823738	**27.78**	**12.34**
WP002	nol1_334	584078	824021	**29.50**	**12.15**
WP003	nol1_343	584717	823874	**40.40**	**20.20**
WP004	P41	584521	823899	**38.00**	**10.86**
WP005	P43	584374	823774	**24.05**	**13.12**
WP006	P47	584145	824040	**18.44**	**10.06**
WP007	agec_WP045	585969	822582	**7.70**	**5.13**

The results from the drained stability assessment at the seven locations are summarised in Table 1.3.

Table 1.3: Factor of Safety Results (Drained Condition)

Location	Original Label	Easting	Northing	Factor of Safety for Load Condition	
				Condition (1)	Condition (2)
WP001	mk0v1_129	584319	823738	**2.92**	**2.77**
WP002	nol1_334	584078	824021	**2.81**	**2.45**
WP003	nol1_343	584717	823874	**3.85**	**4.14**
WP004	P41	584521	823899	**4.00**	**2.39**
WP005	P43	584374	823774	**3.21**	**3.77**
WP006	P47	584145	824040	**1.64**	**1.89**
WP007	agec_WP045	585969	822582	**1.92**	**2.76**

1 .4 Conclusion

A stability assessment has been undertaken on the seven locations which previously recorded an FoS of less than 1.3. The stability assessment has recorded FoS results at each location of in excess of 1.3, which is considered acceptable. This indicates that there is a low risk of peat failure associated with the slopes at these seven locations.

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& PLANNING

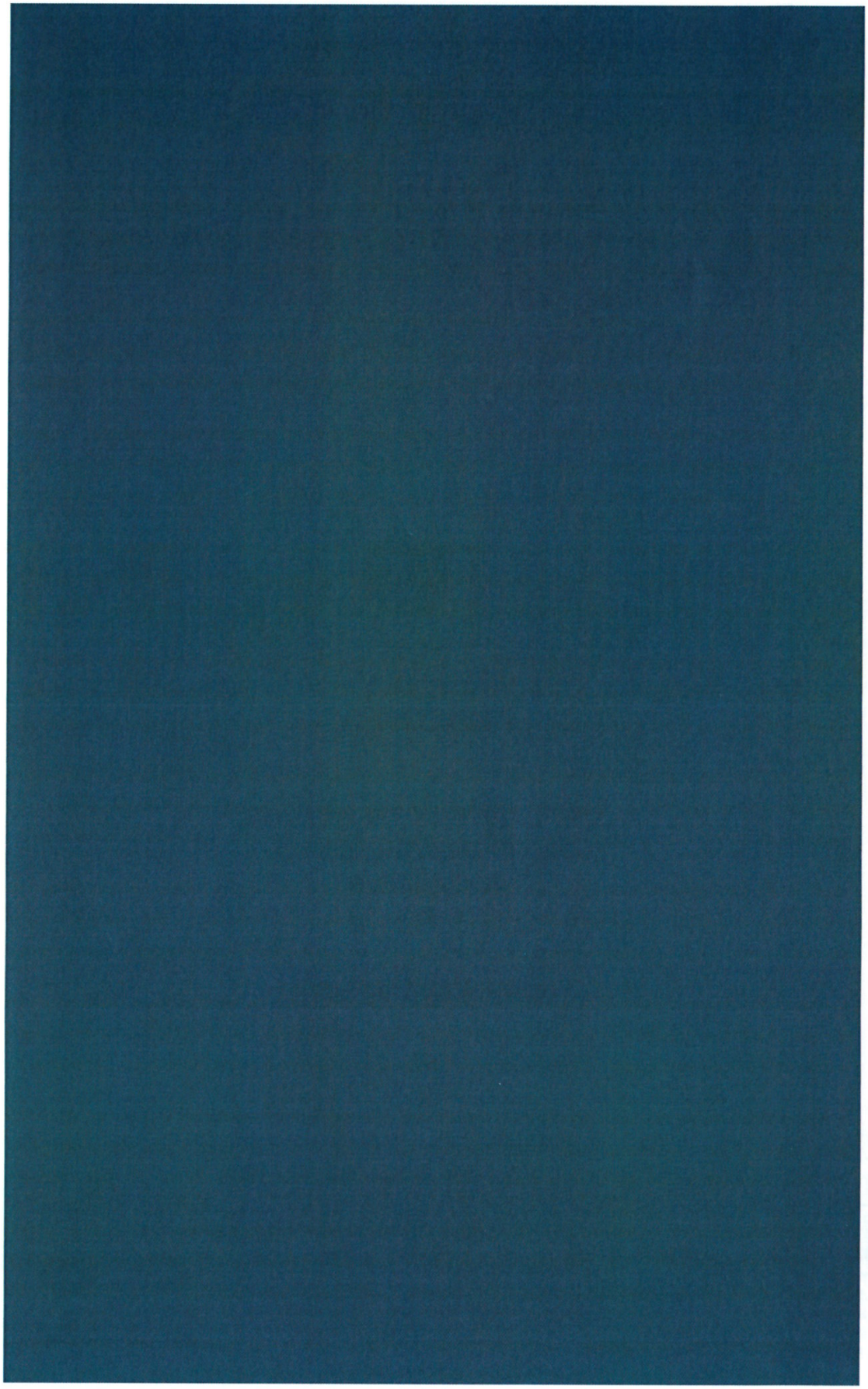
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Fee: € Type:
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An Bord Pleanála,
64 Marlborough St,
Rotunda,
Dublin 1,
D01V902

Our Ref: 180511
Your Ref: 310789

10th August 2021

Re: ABP-310789-21 Croagh Wind Farm (Leitrim)

Dear Sir/Madam,

MKO have been instructed on behalf of our client, Coillte CGA, Newtownmountkennedy, Co. Wicklow, to prepare and lodge this Response to Grounds of Appeal (RGOA) document in response to a third party planning appeal reference ABP-310789-21 made by Environmental Management Services on behalf of Wind Aware Dromahair in respect of a decision by Leitrim County Council (Pl.Ref.20/120). Our client was notified by An Bord Pleanála of the third-party appeal which has been made in relation to the noted planning application by Environmental Management Services on behalf of Wind Aware Dromahair on the 10th of July 2021.

Please note that a copy of the enclosed response to grounds of appeal has also been issued via email to bord@pleanála.ie as of the 10th of August 2021 also. Should you have any additional queries in this regard please feel free to contact the undersigned.

Yours sincerely,

Paul Sweeney,
Planner,
MKO.

Planning and Environmental Consultants

Response to Grounds of Appeal

Croagh Wind Farm

DOCUMENT DETAILS

Client:	Coillte CGA
Project Title:	Croagh Wind Farm
Project Number:	180511
Document Title:	Response to Grounds of Appeal
Document File Name:	2021.07.22- Leitrim RGOA- 180511- F
Prepared By:	MKO Tuam Road Galway Ireland H91 VW84

Planning and Environmental Consultants

Rev	Status	Date	Author(s)	Approved By
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1. INTRODUCTION

MKO have been instructed on behalf of our Client, **Coillte CGA, Newtownmountkennedy, Co. Wicklow**, to prepare and lodge this Response to Grounds of Appeal (RGOA) document in response to a third party planning appeal reference ABP-310789-21 made by Environmental Management Services on behalf of Wind Aware Dromahair in respect of a decision by Leitrim County Council (Pl.Ref.20/120) ('the Planning Authority') to grant planning permission for a renewable energy development. The proposed Croagh Wind Farm development constitutes the provision of a ten-turbine wind farm and all associated works including recreational facilities on lands in both Counties Leitrim and Sligo with 8 No. turbines and all associated infrastructure proposed within the functional area of Leitrim County Council and 2 No. turbines and their associated infrastructure proposed within the functional area of Sligo County Council.

The proposed development is being brought forward to provide renewable energy to the national grid in order to contribute towards Ireland meeting its renewable energy targets to offset carbon, reduce green house gas emissions and fight climate change. The production of renewable energy from the proposed development will assist in achieving the Government's and EU's stated goals of ensuring safe and secure energy supplies, promoting an energy future that is sustainable and competitively priced to consumers whilst combating energy price volatility and the effects of climate change. Ireland faces significant challenges to its efforts to meet EU targets for renewable energy by 2030 and its commitment to transition to a low carbon economy by 2050. The proposed development can aid in meeting these targets should favourable consideration be given. In addition as set out throughout the application documentation and as evidenced in the decisions issued by both Leitrim and Sligo County Council's the site of the Proposed Development is entirely appropriate for the provision of renewable energy. The layout of the proposed development has been led by consideration of constraints and facilitators, thereby avoiding the environmentally sensitive parts of the site. The proposed development will provide a number of benefits including the secure supply of energy but also in the form of recreational amenities to the area through the introduction of a walking track. An Bord Pleanála should consider the wide range of favourable aspects to the subject site and grant permission accordingly.

Our client was notified by An Bord Pleanála of the third-party appeal which has been made in relation to the noted planning application by Environmental Management Services on behalf of Wind Aware Dromahair on the 14th of July 2021.

The Third-Party appeal lodged in relation to the decision of the Planning Authority to grant permission has been fully considered within this RGOA. We wish to reiterate that the applicants support the decision issued by the Planning Authority which clearly evidences that the development as proposed complies in full with the provisions of the County Development Plan, is in accordance with the principles of the proper planning and sustainable development of the area and can be provided without significant effects on the environment or having adverse effects on the integrity of any European Sites. This Response to Grounds of Appeal should be read in conjunction with the suite of information which accompanied the planning application, further information as well as the first party grounds of appeal which was submitted by MKO on behalf of Coillte CGA on the 9th of July 2021, and a previous response to third party grounds of appeal lodge on the 5th of August 2021.

This response is structured as follows:

- **Section 1**- Introduction, setting out the instruction received and the RGOA structure.
- **Section 2**- Detailed responses to each of the grounds of appeal.
- **Section 3**- Conclusion and summary.

1.2

Application Background

Coillte's Renewable Energy Development Team undertook a detailed screening process, through Geographical Information Spatial software (GIS), using a number of criteria and stages to assess the potential of a large number of possible sites, on lands within its stewardship (c. 441,000 hectares), suitable to accommodate a wind energy development. The GIS database drew upon a wide array of key spatial datasets to inform site identification. At a strategic level the site of the Croagh Wind Farm emerged as a suitable candidate site.

Further examination of the site was then carried out to confirm its suitability for wind energy development on a site-specific basis. The relevant planning policy from both the Leitrim and Sligo County Development Plans was examined and the provision of a wind farm at this location was considered to be consistent with both (as evidenced in the decisions that issued from both these planning authorities).

The site of the Proposed Development is not located within any SACs, SPAs, NHAs or pNHAs, nor is it sited within any archaeological heritage areas. Furthermore, the site is not located within any designated scenic areas but is within a landscape that can (and does already) accommodate wind energy infrastructure. The site does not have a high population density, can accommodate significant separation distances to residential properties, offers proximity to existing electrical substations while also having appropriate wind speeds.

The site of the proposed development is also located within existing commercial forestry which allows the site to take advantage of the existing road and access track network. These features combine to make the Croagh site highly appropriate and an ideal candidate site for the provision of wind energy infrastructure and accordingly further assessments, surveys and studies were carried out to inform the design of a wind farm development at this location and which ultimately resulted in the current planning application being lodged.

On the 22nd September 2020, following lodgement of the Planning Application on the 29th of July 2020, Leitrim County Council issued a Further Information request which sought additional details in relation to a total of 78 items. MKO on behalf of the applicant submitted a comprehensive further information response on the 7th of April 2021, which was subsequently re-advertised as being significant to facilitate further third-party engagement. Following review of all application documentation, including EIAR, NIS, further information response and all relevant submissions and observations Leitrim County Council issued their notification of decision to grant permission on the 15th of June 2021 subject to 34 no. conditions. As is evident the subject planning application has been through a full and comprehensive assessment by the Planning Authority who were satisfied on review of all documentation to grant permission for the proposed development.

In issuing its notification of decision to grant permission for the Proposed Development the Planning Authority concluded as follows:

> *"it is considered that subject to compliance with the conditions set out below that the proposed development would accord with European, national, regional and local planning and related policy, it would not have unacceptable impact on the landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, will not adversely affect the archaeological or natural heritage of the area, and it would be acceptable in terms of traffic safety and convenience. The proposed development will make a positive contribution to Ireland's national strategic policy on renewable energy and its move to a low energy carbon future."*

The applicants welcome the decision of the Planning Authority which recognises that the Proposed Development is entirely appropriate at this location and will '*make a positive contribution*' to Irelands renewable energy and low carbon future. It is evident based on the decisions that have issued (from

both Sligo and Leitrim County Council) as well as the results of the comprehensive analysis presented within the application documentation that the subject site is entirely appropriate to cater for a wind farm development.

A concurrent planning application was lodged with Sligo County Council in relation to the elements of the Croagh Wind Farm within that jurisdiction (i.e., the provision of 2 no. wind turbines, meteorological mast, underground cabling, access tracks/roads, amenity works and all associated works) and was assigned the reference Pl. Ref. 20/251. Further information was also sought and issued to Sligo County Council and readvertisement provided along the same timeframe as the Leitrim application. Sligo County Council issued their notification of decision to grant permission on the 15th of June 2021 subject to 20 conditions.

Both the Sligo and Leitrim planning applications have been subject to first and third party appeals that are currently before the Board for consideration.

On the 9th of July 2021 MKO lodged a first party grounds of appeal to An Bord Pleanála with respect to the Proposed Development, and a response has been submitted to the Board (5th August 2021) in relation to a previous third-party appeal. This response to third party grounds of appeal should be read in conjunction with the information submitted previously within that first party appeal.

From the outset we note concerns have been raised throughout the appeal in relation to the content and nature of the application documentation in the context of the recent Derryadd judgment, *Sweetman v the Board & Ors 2020 No. 557 JR [2021] IEHC 390*, our position in relation to this issue has been set out in full within the first party appeal and our response to the previously circulated third party appeal. Our position in this regard remains consistent with our previous submissions in that the Board can absolutely consider and grant permission for the Proposed Development regardless of any previous consideration, reporting or decisions that has been carried out by the relevant planning authority. In this regard Section 37(1)(b) of the Planning and Development Act 2000 (as amended) ("the Act") clarifies that on appeal any proposed development must be considered "de novo" and the decision and consideration of the Board serves to annul the previous consideration of the Planning Authority, should additional details be required by the Board on appeal the provisions Article 73 of the Planning and Development Regulations 2001 (as amended) ("the Regulations") are noted. Should the Board consider it appropriate additional submissions or observations on this matter from any party can be requested under the provisions of Section 131 of the Planning and Development Act 2000 (as amended). For ease, these specific provisions from the legislation are set out below:

Section 37(1)(b) of the Act

"Subject to paragraphs (c) and (d), where an appeal is brought against a decision of a planning authority and is not withdrawn, the Board shall determine the application as if it had been made to the Board in the first instance and the decision of the Board shall operate to annul the decision of the planning authority as from the time when it was given; and subsections (1), (2), (3) and (4) of section 34 shall apply, subject to any necessary modifications, in relation to the determination of an application by the Board on appeal under this subsection as they apply in relation to the determination under that section of an application by a planning authority."

Article 73 of the Regulations

"The Board may, when considering an appeal under section 37 of the Act, invite the applicant for the permission concerned to submit to the Board revised plans or other drawings modifying, or other particulars providing for the modification of, the development to which the appeal relates and an applicant so invited may submit to the Board such number of plans, drawings or particulars as the Board may specify."

Section 131 of the Act

"Where the Board is of opinion that, in the particular circumstances of an appeal or referral, it is appropriate in the interests of justice to request–

a) any party to the appeal or referral,
b) any person who has made submissions or observations to the Board in relation to the appeal or referral, or
c) any other person or body,

to make submissions or observations in relation to any matter which has arisen in relation to the appeal or referral, the Board may, in its discretion, notwithstanding section 127(3), 129(4), 130(4) or 137(4)(b), serve on any such person a notice under this section–

requesting that person, within a period specified in the notice (not being less than 2 weeks or more than 4 weeks beginning on the date of service of the notice) to submit to the Board submissions or observations in relation to the matter in question, and

(ii) stating that, if submissions or observations are not received before the expiration of the period specified in the notice, the Board will, after the expiration of that period and without further notice to the person, pursuant to section 133, determine the appeal or referral."

Accordingly, the Board is in a position to fully consider and assess the proposed development in the context of all the available information on file, and furthermore, should the Board require any further revised plans, other drawings or particulars it can seek additional detail, therefore the Board can carry out its legal functions, review the application in detail, request additional particulars if required and grant permission for the Proposed Development should it be considered appropriate and in accordance with the proper planning and sustainable development of the area.

2. RESPONSE TO THIRD-PARTY GROUNDS OF APPEAL

This Section of the RGOA addresses the Grounds of Appeal raised by Environmental Management Services on behalf of Wind Aware Dromahair ('the appellants') in their appeal document. For ease of reference for An Bord Pleanála we have addressed each of the items raised by the appellants in order following the breakdown of the grounds issued by Environmental Management Services in Section 22 of their report. They have raised 26 no. issues all of which are discussed in order below following the relevant text they use as a summary of the particular grounds of appeal.

2.1.1 GOA 1 & 2- Appropriate Assessment

"There are too many uncertainties in the application to allow An Bord Pleanála to grant planning permission for the proposed wind farm; and, if the Board attempts to undertake an Appropriate Assessment on the basis of the information provided by the application, the results of such an Assessment could be legally challenged;"

"An Appropriate Assessment carried out under Article 6(3) of the Habitats Directive cannot have lacunae and it must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works on any protected Natura 2000 site - and An Bord Pleanála does not have the legal power to grant planning permission if this exacting standard is not met;"

2.1.1.1 Response to GOA 1 & 2 - Appropriate Assessment

In response to these grounds of appeal we first wish to note that the planning application material submitted to date (including a comprehensive response to further information) provided sufficient information for both Sligo County Council and Leitrim County Council to carry out their respective assessments of the proposed development. We also reference the first party grounds of appeal (FPGOA) which was submitted to An Bord Pleanála on the 9th of July 2021, this FPGOA was submitted to the Board in light of the Derryadd judgment (which was issued the day after the decision of the Planning Authority in this case) and while supporting the decision of the Planning Authority it was requested that the Board clarify the nature of the development that has been both assessed and consented through the appeal process. Under the FPGOA, and in the interest of clarity, the applicants noted that the Board can request additional plans and particulars under the provisions of Section 73 of the Regulations to allow the on-file documentation to be augmented and provide greater detail in relation to the extant application documentation with additional drawings, plans and particulars if considered necessary.

The planning application material submitted in relation to Appropriate Assessment is comprehensive and entirely adequate to allow the Board to fully assess the proposed development and that there is no lacuna in information. While this is the opinion of MKO we also note that in light of the Derryadd judgment additional information has been provided (within the FPGOA and in the RGOA dated 5th August 2021) to clarify the nature of the development.

In considering the potential impacts and appropriate mitigation measures to ensure European sites are not impacted the NIS submitted within the application documentation identifies the potential linkages/pathways between the designated sites and the proposed development, which in this case are all hydrological and appropriate mitigation is built into the construction phase, and in particular in the drainage measures that have been incorporated into the project design. Accordingly, the NIS considers the clearly defined development footprint and ground works of the proposed development as detailed on the layout drawings. The required scientific certainty required by the competent authority to

complete its Appropriate Assessment is provided throughout the NIS which clearly concludes as follows:

> *"For the reasons set out in detail in this NIS, in the light of the best scientific knowledge in the field, all aspects of the proposed development which, by itself, or in combination with other plans or projects, which may affect the relevant European Sites have been considered. The NIS contains information which the competent authority, may consider in making its own complete, precise and definitive findings and conclusions and upon which it is capable of determining that all reasonable scientific doubt has been removed as to the effects of the proposed development on the integrity of the relevant Natura 2000 sites.*
>
> *In conclusion, in the light of the conclusions of the assessment which it shall conduct on the implications for the European sites concerned, the competent authority is enabled to ascertain that the proposed development will not adversely affect the integrity of any of the European sites concerned."*

This matter has been addressed in the previously submitted RGOA (5th August 2021), however, as stated in the FPGOA should the Board consider that additional information is required the applicants welcome An Bord Pleanála to request additional plans and particulars from the applicant under the provisions of Section 73 of the Regulations.1.3.1).

2.1.2 GOA 3- Derryadd Wind Farm Judgment

"The lack of precise detail in the planning application, and the lack of certainty about some critical elements of the proposed wind farm, leave no choice to the Board except to refuse planning permission, given the Judgment of the High Court in Sweetman -v- An Bord Pleanála [2021] IEHC 390;"

2.1.2.1 Response to GOA 3- Derryadd Wind Farm Judgment

Grounds of appeal 3 relates to the recent Derryadd judgment (Humphries J Sweetman v An Bord Pleanála 2020 No.557 JR), the appellants alleged that due to the lack of precise detail in the planning application that An Bord Pleanála has no choice but to refuse permission.

In response to this issue, we must initially refer to the FPGOA (FPGOA) which has been lodged with An Bord Pleanála by the applicants on the 9th of July 2021. The FPGOA was submitted to An Bord Pleanála in light of the Derryadd judgment (which was issued the day after the decision of the Planning Authority in this case) and while supporting the decision of the Planning Authority it was requested that the Board clarify the nature of the development that has been both assessed and consented through the appeal process.

This matter has been discussed in full within the FPGOA and it is not intended to repeat the content of that document here, however, it was requested within the FPGOA that the Board grant permission for the proposed development and in doing so include a condition specifying the nature and scale of the turbines which have been consented. This would clarify the overall range of turbine parameters (as set out and assessed in the application documentation including the EIAR and NIS) that are consented. In specifying the relevant parameters of the turbines, the Board will be clarifying that the plans and particulars submitted for the planning application fall within the *"certain limited degree of flexibility"* referenced as being appropriate in the Derryadd judgment. The application documentation submitted, EIAR, NIS and detailed further information response provides comprehensive details and assessments of all elements of the Proposed Development, however, in the interests of clarity and specificity in relation to the plans and particulars the FPGOA invited the Board to request additional plans and particulars from the applicant under the provisions of Section 73 of the Regulations to allow the applicant to augment the extant application documentation with additional drawings, plans and particulars and highlight the detail of the relevant infrastructure if required. It should also be noted that

any additional such details could be re-advertised to allow further formal engagement from all relevant stakeholders and third parties.

The FPGOA also clarified that the application documentation considers a very narrow range of parameters in relation to the proposed turbines, with only a 5m difference between the longest and shortest blade lengths and hub heights giving an overall tip height of between 170/165m. The actual range of turbine configurations is limited throughout with only a variation of 5 metres being considered and not being open at one end of the scale, so that the application documentation submitted considers turbines within the following parameters:

- Turbine Tip Height – Maximum height 170 metres, Minimum height 165 metres
- Hub Height – Maximum height 105 metres, Minimum height 100 metres
- Blade Length: - Maximum length 70 metres, Minimum length 65 metres.

Accordingly, while the application documentation and assessments submitted are comprehensive in scope and content, it is acknowledged that in light of the Derryadd judgment the Board may require additional plans and particulars to be submitted. The FPGOA submitted has addressed this issue and the Board can address any such matters through the appeal processes available to it as this application is now under their jurisdiction for consideration.

2113 GOA 4- Grid Connection

"The application for the connection to the national grid is significantly incomplete, and contains conflicting information;"

21131 Response to GOA 4- Grid Connection

Although listed as item 4 within their summary of grounds this matter is discussed in Section 18 of the third-party appeal, in which the appellant claims that the section of the proposed road along which the grid connection cabling route is proposed to be laid is not within the ownership of the applicant. In response, the applicant wishes to clarify that the relevant section of the public road is located within lands that are owned by the applicant and, therefore, no letter of consent is required, and the grid connection route and public road corridor can be located within the application site boundary.

As the construction of the grid connection will require excavations within the public road network, notwithstanding it being located within lands owned by the applicant, these works will require a road opening licence under Section 254 of the Planning and Development Act 2000 as amended from Leitrim County Council. No excavation works will be carried out until such a licence is granted, and it is fully acknowledged that this further detailed consenting procedure will need to be undertaken.

The route of the proposed grid connection is detailed within the application red-line boundary and the grid connection does not require works on lands that are not under control of the applicant. The grid connection route is fully described and shown within the application documentation and there is no uncertainty as to the route nor the nature of works proposed.

Upon completion of the grid connection works along the public road network, the road surface will be adequately reinstated. As stated in Section 7.2 of the *Construction Methodology - Croagh Wind Farm 38kV Grid Connection from Proposed Substation to Grid node* (included as Appendix 4-6 of the EIAR),

> *"For concrete and asphalt/bitmac road sections, carry out immediate permanent reinstatement in accordance with the specification and to the approval of the local authority and/or landowners, unless otherwise agreed with local authorities."*

In relation to the presence, location and potential relocation of existing underground services along the grid connection route, it should be noted that the proposed route was determined following a series of site visits and investigations by TLI Group, a utility infrastructure consultancy and construction company with extensive experience in the utilities sector in Ireland. The undertaking of confirmatory surveys and investigations, prior to the construction of the grid connection, in order to determine the presence or otherwise of existing underground services is accepted as good industry practice. The management of existing services, should they be present along the grid connection route is outlined in Sections 10.1 and 10.2 of *Construction Methodology - Croagh Wind Farm 38kV Grid Connection from Proposed Substation to Grid node.*

Accordingly, the application documentation provides clear, concise and comprehensive details in relation to the grid connection route and there is no ambiguity arising.

2.1.4 GOA 5- Need for the Development

"The applicant has failed to justify a necessity or a need for the proposed Croagh Wind Farm;"

2.1.4.1 Response to GOA 5- Need for the Development

In response to this issue, we wish to highlight Section 1.5 of the submitted EIAR which sets out that the proposed development is being brought forward in order for Ireland to meet its various EU targets for renewable energy production. Renewable energy resources offer sustainable alternatives to Irelands dependency on fossil fuels as well as a means of reducing greenhouse gas emissions and opportunities to reduce our reliance on imported fuels. A gradual shift towards increasing our use of renewable energy resources would result in:

- Reduced carbon dioxide emissions;
- Secure and stable energy for the long-term;
- Reduced reliance on fuel imports;
- Investment and employment in our indigenous renewable energy projects; often in rural and underdeveloped areas.

Renewable energy development is recognised as a vital component of Ireland's strategy to tackle the challenges of combating climate change and ensuring a secure supply of energy. Ireland is heavily dependent on the importation of fossil fuels to meet its energy needs, with imported fossil fuels accounting for 66% of Ireland's dependency in 2017 at an estimated cost of €4 billion. Under the Climate Action Plan 2019 (CAP) it is recognised that "renewable sources of electricity such as wind and solar now account for the majority of new electricity generation capacity being built globally". Additionally, the CAP continues to note that renewables are now cheaper than combined-cycle natural gas and coal for new-build generation capacity outlining the cost effective nature of renewables. The CAP also recognises that there is a need for a range of renewable sources and notes that:

> *"Intermittency also creates the need for a range of technology solutions which may include large-scale interconnection, storage, and dispatchable capacity (e.g., natural gas plants that can generate electricity at times where there is no wind)."*

In March 2019, the Government announced a renewable electricity target of 70% by 2030. Furthermore, the release of the Climate Action Plan in June 2019 has noted a 30% reduction in greenhouse gases by 2030. The proposed development, should favourable permission be given, can aid in contributing towards these targets. More recently, the EPA reported that Ireland is set to fall far short of all of its carbon emissions reduction targets for 2030, despite climate action measures in the National Development Plan (EPA, June 2019). As such, the proposed Croagh wind energy development is critical to helping Ireland address these challenges as well as addressing the country's over-dependence on imported fossil fuels. Along with the 2030 target Ireland must implement drastic changes in order to move to a low carbon economy by 2050.

Chapter 2 of the submitted EIAR outlines the various policies and targets which have been put in place at the various levels of Government both national and international in relation to renewable energy and climate change and sets out the overall need for the proposed development to aid in Ireland meeting its national targets and European commitments in relation to climate change and decarbonisation. The Climate Action and Low Carbon (Amendment) Act 2021, published in March 2021, is a piece of legislation which commits the country to move to a climate resilient and climate neutral economy by 2050. The Programme for Government (June 2020) commits to a 7% average yearly reduction in overall greenhouse gas emissions over the next decade, and to achieving net zero emissions by 2050. This Act will manage the implementation of a suite of policies to assist in achieving this target. The proposed Croagh Wind Farm development, once operational, will contribute to achieving this annual emissions reduction.

2.1.5 GOA 6- Reasonable Alternatives

"The applicant's consideration of reasonable alternatives fails to comply with the requirements of the EIA Directive, thereby undermining an essential goal of the EIA process;"

2.1.5.1 Response to Grounds of Appeal 6- Reasonable Alternatives

The discussion behind this GOA are provided in Section 12.2 of the third-party appeal. In response to this grounds of appeal, the requirements of Article 5(1)(d) of the EIA Directive, as quoted in Chapter 3 of the EIAR, and by the appellant in Section 12.2 of the appeal, must be examined. Article 5(1)(d) states that and EIAR prepared by the developer must contain *"a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment."*

Chapter 3 of the EIAR looks at reasonable alternatives under the following headings:

- 'Do Nothing' Alternative;
- Alternative Locations;
- Alternative Technologies;
- Alternative Turbine Layouts and Development Design; and,
- Alternative Mitigation Measures.

Article 5(1)(d) requires that the alternatives must be relevant to the project and its specific characteristics. In this regard, the relevant and reasonable 'Do-Nothing' Alternative at this Coillte-owned site is the continuation of forestry operations. It should also be noted that while existing forestry operations at the site will cease during the construction of the wind farm, they can and will continue in conjunction with operation of the wind farm.

The principal characteristic of this project is that it is an on-shore, wind energy development that is being brought forward by Coillte CGA. Therefore, offshore sites were not considered as a reasonable alternative for this particular project. Thus, the consideration of the alternative locations is relevant to the characteristics of the project. the project and its specific characteristics.

Chapter 3 of the submitted EIAR sets out in detail the consideration of alternatives and highlights that the site of the proposed development was first identified from a strategic level screening process through the application of Geographical Information Spatial software (GIS), using a number of criteria and stages to assess the potential of a large number of possible sites, on lands within the stewardship of Coillte (c. 441,000 hectares), suitable to accommodate a wind energy development. The GIS database drew upon a wide array of key spatial datasets such as forestry data, ordnance survey land data, house location data, transport, existing wind energy and grid infrastructure data and environmental data such as ecological designations, landscape designations and wind energy strategy designations available at the time. Once strategically identified a finer grain analysis was carried out which considered local

planning policy, amenity designations, telecommunications, habitat sensitivity, residential density, and ground conditions. Following examination of all criteria the site clearly presented as a location that was capable of accommodating wind energy infrastructure while also minimising environmental impact.

The further detailed analysis and assessment provided within the submitted EIAR and NIS, combined with the additional details submitted in response to the further information request clearly demonstrates both the suitability of the site and the landscape to accommodate the Proposed Development. A fact that has been further evidenced in the decisions that have issued from both Sligo and Leitrim Planning Authorities in relation to the proposed development. The combination of the eminent suitability of the site to cater for and accommodate the proposed development with the clear need for Ireland to produce greater quantities of renewable energy to combat climate change and achieve renewable energy targets presents clear justification for the Proposed Development of Croagh Wind Farm.

Chapter 3 of the EIAR goes on to assess alternative technologies. Given the characteristics of the project and the chosen site, it was considered that the only reasonable and relevant alternative was a solar PV development.

The assessment of Alternative Turbine Layouts and Development Design looks at various turbine layouts, roads layouts, and locations of ancillary infrastructure that were borne out of the detailed, constraints-led design process. Chapter 3 of the EIAR also looks at the alternative grid connection options for the Croagh Wind Farm development, assessing and comparing 3 no. reasonable and relevant grid connection nodes within 10km of the proposed development. The connection to Garvagh substation was chosen based on the land availability and environmental considerations and thus was brough forward as part of the planning application.

The appellant alleges that the assessment of alternatives presented in Chapter 3 of the EIAR is too narrow in its focus and does not examine the broader alternatives required to comply with the EIA Directive. The applicant contends that the assessment of alternatives presented in Chapter 3 of the EIAR is both reasonable and relevant to the project and its specific characteristics, therefore complying with Article 5(1)(d), quoted above, and Article 5(1)(f) of the EIA Directive which states, *"any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected."* For clarity, Annex IV of the EIA Directive states that the information provided in an Environmental Impact Assessment Report (EIAR) should include a *"description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."* Therefore, the consideration of alternatives presented in Chapter 3 of the EIAR is fully compliant with the provisions of the EIAR Directive.

2.1.6 GOA 7 & 8- Planning Policy

"The Programme for Government does not support further onshore wind farm development; and a decision by An Bord Pleanála to grant planning permission for the Croagh Wind Farm would be to ignore the clear direction expressed in this agreed policy document;"

"The Northern and Western Region Spatial and Economic Strategy (RSES) provides no policy support for the current planning application, which should therefore be refused;"

2.1.6.1 Response to Grounds of Appeal 7 & 8- Planning Policy

In reviewing the item raised under GOA 7 & 8 it is the consideration of MKO that the appellants have misrepresented the overall narrative of government policy with respect to the development of renewable energy and wind energy in particular. As is expressed under Chapter 2 of the submitted

EIAR there is a wide range of government policy from various levels which clearly outline the overall support for the development of renewables.

The Programme for Government (PfG) which was published in October 2020 and last updated in April 2021 is broadly supportive of the overall development of renewable energy in light of climate change. The PfG notes that '*climate change is the single greatest threat facing humanity*' and sets out that the government will react comprehensively to climate change in a manner which ensures a rapid reduction in and then reversal of our impact on the climate. With respect to energy, it is set out that this will play a central role in the creation of a strong and sustainable economy over the next decade. The PfG sets out that:

> *"The reliable supply of safe, secure and clean energy is essential in order to deliver a phase-out of fossil fuels."*

With respect to renewable energy the government outline that the necessary action to deliver at least 70% will be taken. To achieve this target the following relevant points have been noted under the PfG:

- Produce a whole-of-government plan setting out how we will deliver at least 70% renewable electricity by 2030 and how we will develop the necessary skills base, supply chains, legislation, and infrastructure to enable it. This new plan will make recommendations for how the deployment of renewable electricity can be speeded up, for example the provision and consenting of grid connections.
- Finalise and publish the Wind Energy Guidelines, having regard to the public consultation that has just taken place.

While no specific mention has been raised under the PfG with regards to onshore wind energy the overall broad support for renewable energy is clearly identified. The proposed development along with the existing renewables and future offshore developments will aid in Ireland meeting its 2030 targets. The litany of policy stemming from international, national, regional and local policy which demonstrates the support of onshore wind energy should also be highlighted in this regard. The provisions of Chapter 2 of the EIAR should be considered which set out the wide range of policy support for wind energy development. In this regard we refer to the 2019 Climate Action Plan which highlights that up to 8.2GW total of increased onshore wind capacity is required to achieve the 70% target that has been set. With approximately 4.3GW of installed wind energy capacity currently installed there is a clear requirement for additional onshore wind energy production, specified within national policy.

The National Planning Framework (NPF) forms the top tier of the national planning policy structure, accordingly establishing the policy context for the Regional Spatial and Economic Strategies and local level development plans. The NPF notes that while the overall quality of the country's environment is good it is not without challenges. Furthermore they note that the manner in which we plan for the potential issues is important.

> *"While the overall quality of our environment is good, this masks some of the threats we now face. Key national environmental challenges include the need to accelerate action on climate change, health risks to drinking water, treating urban waste water, protecting important and vulnerable habitats as well as diminishing wild countryside and dealing with air quality problems in urban areas. It is also important to make space for nature into the future, as our population increases."*

Relevant to the proposed development, National Strategic Priority No. 8 – (Transition to a Low Carbon and Climate Resilient Society) seeks to achieve this transition by 2050. The transition will *"shape investment choices over the coming decades in line with the National Mitigation Plan and the National Adaptation Framework. New energy systems and transmission grids will be necessary for a more distributed, renewables-focused energy generation system, harnessing both the considerable on-shore*

and off-shore potential from energy sources such as wind, wave and solar and connecting the richest sources of that energy to the major sources of demand."

National Policy Objective 55 of the NPF specifically relates to renewable energy, it states that it is an objective to:

> *"Promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050".*

In relation to regional policy the Northern and Western Regional Spatial and Economic Strategy (RSES) is discussed under Section 2.3.6.4.1 of the submitted EIAR. A key issue which has been highlighted under the RSES is how climate change will impact on land-use change and increasing demands on natural resources into the future. The strategy recognises that:

> *"There is marked evidence that Ireland's climate is changing with projections for Ireland indicating that there is a likelihood of a rise in sea levels, changes in rainfall events, increased frequency of storm events, changes to air and soil temperate and periods of increased drought."*

Section 4.5.2 of the RSES lists the strategy surrounding '*renewable energy and low carbon future*'. The section opens with the following statement:

> *"Energy is needed for economic growth, and access to affordable, reliable energy is an essential development objective. Historically most incremental energy demand has been met through fossil fuels, however in future that energy will have to be low-carbon and ultimately zero-carbon. Decarbonisation can and needs to happen and it is an objective of the NPF that Ireland becomes a Low Carbon Economy by 2050. This reflects the Government's 2014 National Policy Position on Climate Action and Low Carbon Development and is also a binding EU requirement."*

The RSES considers the region to have a unique natural endowment of ample carbon-neutral, energy supplies that gives an opportunity of forging and leading the new clean economy of the future.

The following regional policy objectives have been included under this section:

- **RPO 4.19:** The NWRA shall co-ordinate the identification of potential renewable energy sites of scale in collaboration with Local Authorities and other stakeholders within 3 years of the adoption of the RSES. The identification of such sites (which may extend to include energy storage solutions) will be based on numerous site selection criteria including environmental matters, and potential grid connections.
- **RPO 4.17**: To position the region to avail of the emerging global market in renewable energy by: [inter alia]
  - stimulating the development and deployment of the most advantageous renewable energy systems" ....
- **RPO 4.18**- Support the development of secure, reliable and safe supplies of renewable energy, to maximise their value, maintain the inward investment, support indigenous industry and create jobs.

Overall, the development of renewable energy, including wind, is wholly encouraged nationally and within the region under the provisions of the PfG, NPF and RSES respectively, and it is incorrect to allege that the proposed development does not draw support from the associated its policies and objectives. As the Board will be aware the RSES as a strategic regional document does fully support the provision of additional renewable energy within the region and presents clear supporting policy in this regard.

2.17.7 GOA 9- Offshore and Onshore Wind Energy

"Offshore wind farms are now technically achievable, cost effective and are being promoted by Government policies; and therefore a decision by An Bord Pleanála to permit the proposed Croagh Wind would have the effect of locking into the area of the proposed site for some 30 years a technology which is not only rejected by the local community, but will become out-dated within less than a decade;"

2.17.11 Response to GOA9- Offshore and Onshore Wind Energy

It is acknowledged that offshore wind farms are now technically achievable, and the applicants fully support their development to aid in the overall decarbonisation of the country's energy supply and their future contribution to the various climate and energy targets. While this is the case, in the first instance it should be noted that offshore wind energy is still a number of years away from being a deliverable asset to the national grid. A number of factors which should be noted in this regard is the overall delivery timeline in terms of an offshore wind energy development being processed through the planning process in the first instance, (the new legislation for which is currently still being written) and the construction timeline of any such project. Additionally, it is the consideration of MKO that it is still a number of years until offshore wind energy projects will be wholly viable given the lack of aspects such as infrastructure surrounding grid for example.

While the overall benefits of offshore wind energy are noted, it is clear that Ireland cannot rely solely on one source for electricity and a range of integrated sources will be required for an adequate supply of energy to be achieved. This includes renewable energy sources from onshore wind energy, offshore wind energy, solar energy, hydro energy and others as they become available. It is clear that a mix of these sources will be required to adequately meet Irelands energy demands. Under the Climate Action Plan 2019 (CAP) the need for a range of renewable energy sources is noted with the following targets being indicated:

> *"Increase electricity generated from renewable sources to 70%, indicatively comprised of:**
>
> - *at least 3.5 GW of offshore renewable energy*
> - *up to 1.5 GW of grid-scale solar energy*
> - *up to 8 2 GW total of increased onshore wind capacity"*

As is clear in the above the CAP highlights the clear need for increased renewables from a range of sources. As is clear the CAP notes a target of 3.5GW for offshore wind. With regards to onshore wind the CAP states an indicative target of 8.2GW, according to Wind Energy Ireland there is a current installed capacity of 4.3GW, Ireland therefore needs to essentially double its current onshore wind energy capacity. The CAP presents clear and unequivocal support for the provision of additional renewable energy generation and presents further policy support for increased wind energy both onshore and offshore.

Currently onshore wind provides by far the largest component of renewable energy to the national grid and this trend is set to continue. We wish to highlight that there are turbines/wind farms commissioned in excess of 20 years ago which are still supplying renewable energy to the national grid and contributing towards Irelands national and international targets to ultimately becoming carbon neutral. We are in a climate emergency, and it is therefore critical that every appropriate means of replacing carbon within the energy generation sector is utilised. In August 2021 the IPCC published the AR6 Climate Change 2021: The Physical Science Basis. This report states:

> *"It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred."*

The report further goes on to note *"unless there are immediate, rapid and large-scale reductions in greenhouse gas emissions, limiting warming to close to 1.5 degrees or even 2 degrees will be beyond reach"* which highlights the need for immediate action in the reduction of greenhouse gas emissions at a national level as well as globally. All renewable energy sources and technology should therefore be advanced as appropriate and the development of one does not prejudice or hinder another.

2.1.8 GOA 10- Carbon Balance

"The Board should not grant planning permission for the proposed wind farm for the reason that the peatlands comprising portion of the subject site could be restored to functionality, and the proposal to construct a wind farm on the application site is completely opposed to the climate mitigation policy to rewet, restore and re-vegetate denuded peatlands, so that they can become active in the removal of C02 from the atmosphere;"

2.1.8.1 Response to GOA 10- Carbon Balance

In response to Grounds of Appeal 10, the applicant wishes to point the Board towards the proposals outlined in the *Peatland Enhancement and Biodiversity Management Plan* (included as Appendix 6-5 of the EIAR), which are supplemented by information put forward in Section 2.9 of the Response to Further Information document submitted to Leitrim County Council.

As described in Section 6.7.3.1.2 of Chapter 6 of the EIAR, a site-specific Peatland Enhancement and Biodiversity Management Plan has been prepared as part of the proposed project and is provided in Appendix 6-5 of the EIAR. Section 6.7.3.1.2 of the EIAR states that the Peatland Enhancement and Biodiversity Management Plan *"aims to ensure that there will be no net loss of peatland habitat associated with the proposed development"*. As described in the Peatland Enhancement and Biodiversity Management Plan (BMP), the loss of 0.91 hectares (1.47%) of peatland habitat within the EIAR study area *'will be compensated for in full by felling an equivalent area of land where conifers have been planted on blanket bog habitat (adjacent to Turbine no. T7, see Figure 1.2 of the BMP, Appendix 6-5 of the EIAR). In addition, an area of blanket bog adjoining the proposed restoration area will also be enhanced through the implementation of drain blocking and removal of encroaching conifers'*. The plan also states that *'the combination of enhancing 3.74 hectares of degraded blanket bog (due to drainage and establishing conifers, growing as a result of natural seed dispersal) and locating the proposed compensation area of 0.38 hectares adjacent to this, aims to maximise the potential overall biodiversity benefits associated with the restoration plan'*.

A methodology for calculation carbon losses was published in June 2008 by scientists at the University of Aberdeen and the Macauley Institute with support from the Rural and Environment Research and Analysis Directorate of the Scottish Government, Science Policy and Co-ordination Division. This methodology was refined and updated in 2011 based on feedback from users of the initial methodology and further research in the area. The web-based version of the carbon calculator, which supersedes the excel based versions of the tool, was released in 2016. The tool provides a transparent and easy to follow method for estimating the impacts of wind farms on the carbon dynamics of peatlands and was used to assess the effects of the proposed wind farm in terms of potential carbon losses and savings taking into account peat removal, drainage and operation of wind farm. The model calculates the total carbon emissions associated with the proposed wind farm development including manufacturing of the turbine technology, transport, construction of the development and carbon losses due to peatland disturbance. The model also calculates the carbon savings associated with the proposed wind farm development. The results of this model and the carbon savings calculation are presented in Section 10.2.3 of Chapter 10 of the EIAR.

In total, it is estimated that the proposed development will displace **1,655,640 tonnes** of carbon dioxide over the proposed thirty-year lifetime of the wind farm.

211.9 GOA 11- Peat Stability

"There is an elevated risk of peat slides or bog slides being triggered as a result of the construction of a wind farm on the subject site in an area with a high density of historical landslides; there is a significant risk of an unstoppable peat slide occurring on the subject site as a consequence of construction activities, which include excavation for turbine bases and the building of roads for servicing the construction work on the site;"

211.9.1 Response to GOA 11- Peat Stability

In response to the appellant's claim that there is a 'significant' risk of a peat slide as a result of construction activities, the applicant wishes to reiterate the findings of the peat stability assessment included as Appendix 8-1 of the EIAR, submitted as part of the planning application and supplemented by additional information included in **Appendix 1** of the Response to Further Information (RFI). The risk assessment included within the Geotechnical and Peat Stability Assessment Report (PSA) indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure at turbine locations and along access roads arising from the construction phase of the wind farm development, provided appropriate mitigation/control measures are implemented. These mitigation/control measures are outlined in Appendix E of the Geotechnical and Peat Stability Assessment Report.

In Section 14.1 of the appeal, the appellant refers to a number of peat slide events including the peat slide at the neighbouring Garvagh Glebe Wind Farm, the peat slide at Derrybrien Wind Farm in Co. Galway and the nearby Shass Mountain peat slide. The Garvagh Glebe peat slide occurred in an area of thin peat on steep ground and was likely caused by the presence of a layer of weak clay below the peat. The excavate and replace roads proposed for Croagh will be founded on a competent stratum, that is to say that if any very soft or soft clay is present beneath the peat it will be removed and replaced with granular fill. This will significantly reduce the risk of a failure occurring within this layer from construction loading and/or vibrations on excavate and replace roads.

Peat strength at other sites of known peat failures (assuming undrained loading failure) are generally very low, for example the undrained shear strength at the Derrybrien failure (AGEC, 2004) as derived from essentially back-analysis, though some testing was carried out, was estimated at 2.5kPa. Derrybrien wind farm is located in county Galway and the failure occurred in 2003. The recorded undrained strengths at Croagh are significantly greater than the lower bound values for Derrybrien indicating that there is no close correlation to the peat conditions at the Derrybrien site and that there is significantly less likelihood of failure on the Croagh site.

The peat failure at Shass Mountain (Dawn of Hope) is primarily attributed to an intense rainfall event and the concentration of runoff from forestry drainage into an area of saturated, relatively weak, peat, due to the blockage of some forestry drains. Such intense rainfall events cannot be avoided; however, the impact can be mitigated by ensuring that all existing forestry drainage is maintained during the proposed construction works to avoid blockages and water build-up, especially in deeper peat areas which is what will be completed at Croagh. Concentrated discharge of water onto peat will be avoided with the implementation of the measures outlined in Section 2.5 of the Surface Water Management Plan (SWMP) which is included as Appendix 9 of the RFI document.

The comment in Section 14.2 of the appeal which states that 'localised movement of peat beneath an access road' (taken from Section 2.3 of the PSA) could lead to a 'dramatic and unstoppable peat slide', and that this possibility is 'very likely' is misleading and is taken out of context. The full sentence in Section 2.3 of the PSA states "*Peat failure excludes localised movement of peat that would occur below an access road, creep movement or erosion type events.*" Localised movement of peat below a floated access road would be expected as the peat will settle once a load is applied to the surface of the peat. It should also be noted that only localised sections of floated access road are proposed for the site, and these are located in areas with shallow gradients. In addition, it is proposed that for any areas where floating roads are proposed (Figure 2.1 of the Peat & Spoil Management Plan, Appendix 4.2 of the

EIAR), that confirmatory inspections is carried out by a suitably qualified engineer in advance of the construction to reconfirm that there are no localised areas of weak/saturated peat, evidence of blocked drains, or evidence of existing peat instability. As such, the possibility of localised movement of peat beneath a section of floating road leading to a 'dramatic and unstoppable' peat slide is not considered to be significant.

Furthermore, in relation to other comments raised in Section 14.2 of the appeal regarding T8, T9 and temporary construction compounds 1 and 2, the response to Item 20 of Appendix 3 of the RFI states that "*the PSA report does not quote low factors of safety for turbines T8 and T9 and temporary construction compounds 1 and 2. The factors of safety calculated at these locations are all above 1.3, which is considered to provide a satisfactory factor of safety against failure, as noted in Section 7.3 of the Peat Stability Report.*" Therefore, relocation of these infrastructural elements is not considered necessary.

The planning authority were satisfied that the issue of peat stability had been adequately addressed and is within the accepted industry standard factors of safety. Indeed, the Leitrim County Council Planning Report states, in relation to land, soils and geology (which includes the peat stability assessment) that the planning authority were "satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and best practice measures."

On the topic of factor's of safety, it is noted from the Capital Projects Department's (CPD) submission on the Response to Further Information documentation that queries are raised in relation the low factors of safety (below the recommended minimum FoS of 1.3) that were recorded at 7 no. locations across the site. The reason that these lower factors of safety arose during the calculations was clarified as part of the response to Item 25 of Leitrim County Council's Request for Further Information. However, the CPD requested that proof be provided by the applicant to show that the factors of safety at the 7 no. locations, where the FoS was calculated to be less than 1.3 (when using lower bound peat strength's), were in fact greater than 1.3 when actual location specific data was used. The CPD also recommended that this request be attached as a condition of any grant of planning permission which it has (Condition No. 18 of the Leitrim County Councils's Notification of a Grant of Planning Permission).

We wish to address this query as part of the response to this appeal. An additional site visit, to gather site-specific peat depth, slope and shear strength data from these 7no. locations, was carried out by Fehily Timony on the 5th August 2021. Following this, this data was then used to carry out an updated peat stability assessment for these locations. The updated stability assessment has recorded FoS results at each location of in excess of 1.3, which is considered acceptable. This indicates that there is a low risk of peat failure associated with the slopes at these seven locations. Further detail in relation to the updated peat stability assessment for these locations in included as **Appendix 1** of this document.

2.1.10 GOA 12- Hydrology - Heavy Rainfall Event

"There is a non-negligible risk that an exceptionally heavy rainfall event could overwhelm the proposed surface water containment system; and, if a peat slide were to occur, it could not be effectively controlled and stopped before large quantities of peat fibre and water spread downslope to contaminate sensitive downstream fishery waters;"

2.1.10.1 Response to GOA12- Hydrology – Heavy Rainfall Event

All drainage systems (for wind farms, road schemes, carparks, housing estates etc) are designed to a certain return periods, and while extremes may be considered in terms of surcharging or for flood prevention/control, there is no standard requirement to design drainage systems for wind farms to deal with extreme events. The approach taken for the proposed wind farm development to limit the effects

on water quality of extreme events is to have a multi-element Sustainable Drainage System [1] (SuDS) with no reliance on any one drainage/water quality control element. This approach creates redundancy in the drainage system, and therefore allows for more effective operation during variations in runoff flows (i.e., low flow through to high flow). Construction stage monitoring at wind farm sites indicates that there is a very low frequency of exceedances of Environmental Quality Standards for surface quality in downstream watercourses. While there may be concerns raised with regards to water quality impacts from wind farms, these concerns are not borne out by evidence of water quality impacts or changes to Water Framework Directive (WFD) status in receiving water downstream of wind farm sites arising from construction works.

During extreme rainfall events, water quality in streams and rivers across entire catchments can be reduced periodically due to high levels of runoff from natural erosion. Upland streams and rivers, by their very nature, are natural vectors for sediment transport and erosion. They do not have pristine water quality 100% of the time. As a result, aquatic species have an ability to tolerate and survive these extreme periodic events.

As stated above, the risk assessment included within the Geotechnical and Peat Stability Assessment Report (PSA) indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure at turbine locations and along access roads, provided appropriate mitigation/control measures are implemented. The contingency measures to deal with a peat slide, outlined in Section 12 of Peat & Spoil Management Plan (included as Appendix 4-2 of the EIAR), are considered best industry practice.

2.1.1.1 GOA 13- Peat Stability

"The applicant's response to the risk of a peat slide is unsatisfactory, and the applicant's proposed responses to an imminent peat slide event are inadequate to prevent significant downslope or down-gradient movement of a large mass of peat and water;"

2.1.1.1.1 Response to GOA 13- Peat Stability

The 'proposed responses to an imminent peat slide' are not considered to be inadequate to prevent the mass movement of peat leaving the site. Check barrages have been successfully used in the past to mitigated and retain peat slides. The check barrage does, however, allow water to flow through the barrage, as to impound a large volume of water is considered to be inadvisable due to the possibility of a sudden release of this water and the resulting damage that this would cause.

It should also be noted that the inclusion of contingency measures to deal with a peat slide within Section 12 of Peat & Spoil Management Plan (included as Appendix 4-2 of the EIAR) is considered best industry practice. This does not constitute the 'recognition of such a risk'.

The appellant states that 'the risk is significant' but provides no evidence to support this assertion. The risk assessment undertaken as part of the robust and thorough peat stability assessment for the Croagh Wind Farm development indicates a 'negligible' to 'low' risk of peat failure across the site, as discussed in the Geotechnical and Peat Stability Assessment Report (included as Appendix 8-1 of the EIAR and supplemented by information provided in Appendix 3 of the RFI document).

The risk is also not considered to be 'uncertain', again, we refer to the Geotechnical and Peat Stability Assessment Report and the supplementary information provided in the RFI that details the robust risk assessment and stability analyses undertaken as part of the assessment.

It is also noted that Leitrim County Council were satisfied that the issue of peat stability had been adequately addressed and is within the accepted industry standard factors of safety. Accordingly, the

[1] https://www.susdrain.org/delivering-suds/using-suds/background/sustainable-drainage.html

application documentation fully considers and assesses the ground conditions within the proposed development site and sets out detailed mitigation measures to further minimise risk. All the assessments and analyses presented demonstrate that the proposed development can be provided with appropriate mitigation measures and constructure practices as fully detailed.

2.1.12 GOA 14- Hydrology – Settlement Ponds

"The applicant's proposed "stilling ponds" or "settlement ponds" would not work effectively, or would fail to work, when confronted with suspended peat fibres which tend not to sink in water, or which sink very slowly so that they are not precipitated out;"

2.1.12.1 Response to GOA 14- Hydrology – Settlement Ponds

In relation to this item peat and fine subsoil material will be excavated and transported to peat repositories on site. Settlement ponds at the peat repositories are designed to allow 24hrs of retention to allow settlement of fine silts to 4 microns in line with EPA design recommendations (EPA, 2006). Our experience from other wind farm construction sites is that peat material is not the sole major issue for water quality protection. Peat is either excavated just ahead of road placement, and therefore exposure is limited to small areas at a time, or it is covered by floating road construction and therefore there is limited exposure. While the more significant concern is in fact the access track runoff (crushed stone and quarry material with fines) and erosion of exposed subsoil material actually generates the larger volumes of medium and fine sediments requiring treatment/removal. The design approach used is therefore appropriate to protect water quality from the proposed wind farm development.

2.1.13 Grounds of Appeal 15- Hydrology – Water Quality

"The proposed wind farm development could have a significant adverse impact on water quality and the wider environment, and has the potential for cumulative impact because of a cluster of existing nearby wind farms;"

2.1.13.1 Response to GOA 15- Hydrology – Water Quality

It is fully acknowledged that the protection of surface water quality both during construction and operation of the wind farm development is one of the most important elements of the proposal. For this reason, a significant level of detail has been provided in both the EIAR (Chapter 8 and Chapter 9) and in Appendix 2 of the Response to Further Information (RFI) document (HES, 2021) in relation to this issue.

Hydro Environmental Services Ltd. (HES) were, at all times during the design stage and assessment stage of this development, acutely aware of the sensitivities of downstream watercourses/receiving waters. This is stated at Section 9.3.16 of the EIAR where surface water receptors are identified as "very sensitive".

The updated drainage plans submitted with the RFI document (Appendix 2) are very detailed, and as noted in the RFI response are of a construction stage design level, and also were intended to comply with Inland Fisheries Ireland (IFI) requirements, as part of their submission on the planning application. HES RFI Response Report Section 3, pg 38 (Appendix 2 of RFI) states:

> *"Comprehensive drainage proposals are presented in this RFI response for the Croagh Wind Farm development. The Updated Drainage Plans are backed up with supporting calculations. The details provided herein are comprehensive, comply with IFI requirements, and are of a detailed construction phase design standard".*

While the drainage plans are very detailed, they are not complex. Indeed, similar plans have been approved by An Board Pleanála for several other wind farm sites (e.g. Glenmore WF: ABP Ref: PL 03.245392 / Clare Co. Co. Planning Ref: 14/575; Cloncreen WF: 19.PA0047; Ardderroo WF: ABP Ref: 303086-18), and detailed plans such as these have been implemented successfully at constructed wind farm sites (e.g. Glenmore WF: ABP Ref: PL 03.245392 / Clare Co. Co. Planning Ref: 14/575; Cloncreen WF: 19.PA0047).

All drainage proposals require management and monitoring. These requirements are not unique to the Croagh Wind Farm drainage proposal. For example, drainage systems at a forestry site, housing estate or a supermarket carpark, would require management and maintenance. Silt traps would need to be cleaned out and petrol interceptors would need to be desludged and inspected. Indeed, planning conditions to ensure management and monitoring of drainage systems are often included in planning consent conditions.

Management and monitoring of drainage systems is good practice and ensures the highest level of functionality. The inference in Section 15 of the appeal that such a requirement [for maintenance and monitoring] as some form of deficiency is illogical.

The key period for risk to water quality is during the construction phase of the proposed development. This point is acknowledged and addressed comprehensively in Chapter 9 of the EIAR and Appendix 3 of the RFI document. While there are still water quality risks during the operational phase of the development, these are greatly reduced from the construction stage as the site conditions are benign/stable and there is limited site traffic.

The Board should note that a significant number of wind farm sites have been constructed at forestry and blanket peat sites. These projects have generally used the drainage design elements that have been proposed for the Croagh Wind Farm and we are not aware of any surface water quality effects provided the drainage system is implemented and correctly maintained.

We note the references and quotations from to the Executive Engineers Report from the Environment Department of Leitrim County Council, dated 27/05/2021. While the report notes a series of concerns relating to water quality and WFD status, these concerns were also expressed by Leitrim County Council and Inland Fisheries Ireland at in the Request for Further Information, and all these concerns have been addressed in detail in Chapter 8 and Chapter 9 of submitted EIAR and Appendix 2 the RFI document (HES, 2021).

All other local permitted wind farms are constructed, except for Tullynamoyle Extension (4 no. permitted turbines). Even though the Tullynamoyle Extension turbine locations are within the same river catchments, they are remote from the Croagh WF site (no in the Garvogue catchment and 2 no. in the Shannon catchment), and as such there is negligible potential for cumulative impacts on water quality to occur. As the critical period for cumulative impacts are during the construction phase, the potential for Croagh WF to create cumulative water quality impacts with other WFs is negligible.

2.11.4 Grounds of Appeal 16- Hydrology – Nutrient Loading

"The proposed wind farm development would create a high risk of increasing the nutrient and suspended solid loading in the downstream receiving waters and receiving environment;"

2.11.4.1 Response to Grounds of Appeal 16- Hydrology – Nutrient Loading

The response in relation to effects on downstream waters and receiving environments, including fisheries, are similar to that outlined above in Section 2.1.11.1 in relation to SuDs drainage systems and Section 2.1.13.1 in relation to settlement pond design standards as the points made overlap.

Detailed measures with regards to surface water quality protection (sediment and nutrient loads) from tree felling are outlined in the submitted EIAR at Section 9.5.3.1.

Again, the Board should note that a significant number of wind farm sites have been constructed at forestry and blanket peat sites. These projects have generally used the drainage design elements that have been proposed for the Croagh Wind Farm and we are not aware of any surface water quality effects provided the drainage system is implemented and correctly maintained.

2.1.15 Grounds of Appeal 17 & 18- Ornithology

"The amount of bird mortality caused by collision with turbine blades could be significant for wintering bird species which form part of the Irish breeding population, and the applicant's estimate of 22 collisions per year is very significant, and is certainly not negligible;"

"The are of the proposed wind farm site is a foraging ground for hen harrier, a protected and endangered species;"

2.1.15.1 Response to Grounds of Appeal 17- Ornithology

It is noted in relation to impacts on wintering golden plover, and all other key other key ornithological species that a comprehensive impact assessment is provided in Section 7.10.2.2 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

Notwithstanding the above, as it was requested by the Further Information Request issued by Leitrim and Sligo County Councils a revised assessment was provided which addressed the concerns raised in relation to breeding golden plover, i.e. the summer population. This impact assessment provides a robust justification for the assessment of collision risk as a **Very Low** effect significance (as per Percival, 2003 criteria) and Long term Imperceptible Effect (as per EPA, 2017 criteria). The impact assessment set out in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions that are presented in Section 7.10.2.2 of the EIAR.

It is noted in relation to impacts on hen harrier that a comprehensive impacts assessment is provided in Table 7.10.2.3 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

It is further noted that additional information was provided to Leitrim and Sligo County Councils in relation to impacts on hen harrier at the subject site. The impact assessment set out in Table 2-9 and Table 2-2 of the Further Information Response Pl.20/120 (Leitrim County Council) and PL.20/251 (Sligo County Council) (respectively) further corroborates the conclusions of no significant effect that are presented in Section 7.10.2.3 of the EIAR.

DAU Submission on Further Information Response

The applicant has reviewed all submissions that have been lodged by third parties and the various statutory consultees. Following this review, it is considered that the initial application documentation combined with the response to the further information request issued by the Planning Authority and this Response to the Grounds to Appeal comprehensively deals with any issues raised. In the interests of completion and clarity, however, the applicant is taking this opportunity to provide further discussion in relation to the items that have been raised in the submission from the Development Applications Unit (DAU) which incorporates the consideration of the National Parks and Wildlife Service (NPWS).

Whooper Swan

The DAU submission acknowledges that the overall number of observations is low however states the following:

Impacts associated with the proposed development in the context of creating barrier effect should be considered in combination with other wind farm developments in the vicinity.

It is noted in relation to impacts on whooper swan that a comprehensive impact assessment is provided in Section 7.10.2.1 and cumulative effects are assessed in Section 7.18 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement (including barrier effect) or collision mortality.

Golden Plover

The DAU submission states the following:

The predicted collisions presented in the FI, i.e. 0.088% of the Irish breeding population, does not take account of the increased decline since the Lauder and Donaghy's (2008) report, and as stated in the recent survey of the Owenduff/Nephin Complex in Co. Mayo.

It is noted in relation to impacts on wintering golden plover that a comprehensive impact assessment is provided in Section 7.10.2.2 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

Notwithstanding the above, as it was requested by the Further Information Request issued by Leitrim and Sligo County Councils a revised assessment was provided which addressed the concerns raised in relation to breeding golden plover, i.e. the summer population. This impact assessment provides a robust justification for the assessment of collision risk as a Very Low effect significance (as per Percival, 2003 criteria) and Long term Imperceptible Effect (as per EPA, 2017 criteria). The impact assessment set out in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions that are presented in Section 7.10.2.2 of the EIAR.

The DAU highlighted that the breeding population of golden plover has continued to decline since the last published population estimate (Lauder and Donaghy, 2008). While is it acknowledged that there has been continued declines in the breeding population of golden plover the rate of predicted collisions, as a result of the proposed development, is very low: 0.088 theoretical/potential collisions per year. This equates to less than three birds throughout the 30-year lifetime of the wind farm. As detailed in Table 2-8 and 2-1 of the Further Information Response P.20/120 and PL.20/251 (respectively) this rate of mortality is not predicted to significantly impact golden plover.

Hen Harrier

The DAU submission states the following:

While the proposed development site is dominated by mature conifer plantation, there is suitable habitat in pockets within the plantation and surrounding the development site which is of importance to hen harrier.

It is noted in relation to impacts on hen harrier that a comprehensive impacts assessment is provided in Table 7.10.2.3 of the EIAR. No significant effects were predicted, with regard to direct habitat loss, displacement or collision mortality.

It is further noted, that additional information was provided to Leitrim and Sligo County Councils in relation to impacts on hen harrier at the subject site. The impact assessment set out in Table 2-9 and 2-2 of the Further Information Response P.20/120 and PL.20/251 (respectively) further corroborates the conclusions of no significant effect that are presented in Section 7.10.2.3 of the EIAR.

Monitoring

The DAU submission states the following:

The Department recommends that the provision of robust monitoring protocols for all the importance bird species (e.g. hen harrier, golden plover, whooper swan and curlew) identified during surveys. The use of tracking technology could be considered to monitor site usage and impacts going forward.

It is noted that a comprehensive monitoring programme is set out in Appendix 7-7 of the EIAR and is already proposed. The programme of works will monitor parameters associated with collision, displacement/barrier effects and habituation and these surveys will be scheduled to coincide with Years 1, 2, 3, 5, 10 & 15 of the life-time of the wind farm. Monitoring measures are broadly based on guidelines issued by the Scottish Natural Heritage (SNH, 2009 & 2017). The following individual components are proposed for monitoring years:

- Monthly flight activity surveys: vantage point surveys
- Distribution and abundance surveys: breeding wader to a 500m radius of the development area, breeding hen harrier surveys and winter hen harrier roost surveys to a 2km radius of the development area.
- Targeted bird collision surveys (corpse searches) will be undertaken with training dogs. The surveys will include detection and scavenger trials, to correct for these two biases and ensure the resulting data is robust.

Notwithstanding the monitoring measures set out above as detailed in the submitted EIAR, it is noted that in the event of favourable consideration it is anticipated that a condition(s) will be imposed to ensure adequate on-going monitoring is carried out.

2.1.16 Grounds of Appeal 19- Planning Decision

"The 34 conditions attached to the decision made by Leitrim County Council to grant planning permission for the proposed wind farm, are not adequate to provide the necessary level of protection to the environment generally, to sites of European Interest (Natura 200 sites: SACs and SPAs), to wildlife, and to the well-being and health of local residents;"

2.1.16.1 Response to GOA 19- Planning Decision

In reviewing the 34 conditions which have been attached to the grant of permission by Leitrim County Council MKO are of the opinion that these are wholly appropriate, clear and strike an appropriate

balance between protection of amenities and environmental while also facilitating the development of a renewable energy facility at this location. As will be clear to the Board, the conditions which have been attached by Leitrim County Council are generally consistent with those attached to wind farm permissions, however it is noted that as the Board will be considering this matter "de novo", that in the event of favourable consideration it will provide its own suite of conditions that will replace those set out by the Planning Authority. Notwithstanding this, the conditions attached to the decision of the Planning Authority set appropriate limits on a number of aspects including overall operational period of the wind farm, noise, shadow flicker, construction timing, etc. The conditions also ensure that all relevant mitigation is carried out and that various forms of post consent monitoring is undertaken (including shadow flicker, noise, archaeological, birds etc).

While it is the opinion of MKO that Leitrim County Council have produced a comprehensive decision we also note that the subject planning application has been subject to both first part appeals and third party appeals and the matter of the wording and nature of conditions to be imposed will be decided by the Board in the event of favourable consideration.

2.1.17 GOA 20- Layout

"The layout and description of the proposed wind farm has not been changed in any significant way, despite a number of serious issues and questions raised in Leitrim County Council's detailed request for further information;"

2.1.17.1 Response to GOA 20- Layout

While it is acknowledged that the Planning Authority issued a very detailed further information request in relation to the Proposed Development, it is unclear which "*serious issues and questions"* raised in the request the appellant is referring to that would require a change to the layout and description of the Croagh Wind Farm development

The Further Information request that issued was extensive, however, the items sought were predominantly matters of detail that requested further clarity or more detailed analysis. The comprehensive further information response that was submitted addressed all the matters raised in full (as noted in the planning report accompanying the decision to grant permission), and the various internal sections within the planning authority and various statutory bodies, considered the responses appropriate and requested a range of conditions to be attached in any future grant of permission.

2.1.18 GOA 21 & 22- Noise

"If the Croagh Wind Farm were to be granted planning permission by An Bord Pleanála, the combined noise levels would become a significant nuisance, especially as the noise would become more continuous;"

"Significant noise nuisance is already occurring as a result of the nearby existing wind farm; the nuisance problem has not been resolved, and if the proposed wind farm were to be permitted, the combined effects of continuous noise would become worse;"

2.1.18.1 Response to GOA 21 & 22- Noise

The noise impact assessment submitted takes full account of the cumulative noise impact of Croagh wind farm, Gavagh Glebe and Black Banks wind farms operating together. The assessment and methodology undertaken is in accordance with the Institute of Acoustics Good Practice Guidelines (IoA GPG) and is presented in the EIAR has demonstrated that the cumulative turbine noise levels shall comply with the relevant guidelines.

The submitted noise impact assessment is robust and has been carried out in line with current standards and best practice guidelines (i.e. Planning Guidelines for Wind Development 2006, ETSU-R-97 and IoA Good Practice Guidelines). The submitted noise and vibration assessment (Chapter 11 of the EIAR) demonstrates that the Proposed Development can operate within the noise criteria derived from the relevant guidance and accordingly can be provided without significant effect on the amenities of any sensitive receptors.

Predicted noise levels are also in compliance with Condition 8 of the decision to grant planning permission which is as follows:

> *8. The operation of the proposed development, by itself or in combination with any other permitted wind energy development, shall not result in noise levels, when measured externally at nearby noise sensitive locations, which exceed:*
>
> *a) Between the hours of 0700 and 2300:*
>
> *i. greater than 5 dB(A) L90,10min above background noise levels, or 45 dB(A) L90,10min, at wind speeds of 6 metres per second or greater,*
>
> *ii. 40 dB(A) L90,10min at all other wind speeds,*
>
> *b) 43 dB(A) L90,10min at all other times,*
>
> *where wind speeds are measured at 10 metres above ground level.*
>
> *Prior to commencement of development, the developer shall submit to, and agree in writing with, the Planning Authority a noise compliance monitoring programme for the subject development, including any mitigation measures such as the de-rating of particular turbines. All noise measurements shall be carried out in accordance with ISO Recommendation R 1996 "Assessment of Noise with Respect to Community Response," as amended by ISO Recommendations R 1996-1. The results of the initial noise compliance monitoring shall be submitted to, and agreed in writing with, the Planning Authority within six months of commissioning of the wind farm. The developer shall outline proposed measures to be taken to address any recorded non-compliances. A similar report may be requested at reasonable intervals thereafter by the Planning Authority.*
>
> *Reason: To protect the amenities of property in the vicinity of the site*

The condition is in keeping with the noise criteria set out in Section 11.4.2 of the EIAR.

As required by the planning condition, prior to the commencement of a noise compliance monitoring campaign, a written methodology will be submitted for approval to the Leitrim County Council, stating clearly how the wind, noise and turbine data will be processed, in order to ensure that the Croagh Wind Farm is operating within its planning condition limit for noise outlined in Condition 8 above.

The assessment carried out has therefore fully considered the potential for cumulative noise impacts and this has been addressed in full within the application documentation. Furthermore, it should be noted that the Planning Authority are satisfied with the noise assessment that has been carried out as part of the EIAR and attached an appropriate condition to ensure the Croagh Wind Farm development will not give rise to an adverse impact on any noise sensitive receptors.

It is fully acknowledged that the Board will be reviewing this matter in full and in the event of favourable consideration will impose its own noise condition which will ensure that noise sensitive receptors will be protected, and adverse impacts will not arise.

21.19 GOA 23- Landscape Turbine Size

"The proposed wind farm is disproportionate in size for the planned site; and, when considered in combination with other nearby wind farms, would have the effect of transforming the landscape so as to detrimentally alter its character;"

21.19.1 Response to GOA 23- Landscape Turbine Size

In response to grounds of appeal 23 we wish to reiterate that the subject site is located in an area with a history of wind energy development and that wind turbines have been a feature of this landscape for many decades. The basic argument that is being made in this instance is that the introduction of a wind turbine which is larger than those already existing would dramatically alter the landscape character. Please note that a full landscape assessment has been carried out as part of the proposed planning application, this can be viewed under Chapter 12 of the submitted EIAR. The landscape assessment included an overall cumulative assessment, which concluded that:

> *"Although, it was found that the proposed turbines would add to the cumulative landscape status, it would not change the character of the individual LCAs in terms of wind energy and therefore the cumulative landscape effects are considered Low."*

Additionally, we wish to note the conclusion surrounding the cumulative visual effects (refer to Section 12.8.4 of the EIAR) in which it was noted that:

> *"No cumulative effects will arise at two viewpoints. In the remaining 15 viewpoints it was found that the increase in spatial extent was predominantly 'Slight' to 'Moderate' While complete visual separation of the proposed turbines from the permitted turbines is achieved in one viewpoint, mostly 'Slight' to 'Moderate' separation was seen. The assessment of the perceived difference of scale was also predominantly 'Slight' to 'Moderate' with one viewpoint showing a 'Negligible' difference in scale. At no viewpoint was the difference in scale perceived as 'Substantial'."*

As is clear from the above the proposed development would not change the character of the individual landscape character. Additionally, as is clear the perceived difference of scale was also predominantly slight to moderate showing the overall lack of impact. As can be assessed the appellants have no basis for their claim that the scale of the subject site would transform the character of the area. We also wish to note the findings of the Planning Authority in this instance, in assessing the general concern to which this grounds of appeal relates, the following was noted within the Leitrim County Council planning report:

> *"The arguments that the introduction of a wind farm in a landscape which already has a considerable number of wind farms (70 no. turbines located along a ridge that straddles the Leitrim, Roscommon and Sligo borders) can be readily assimilated without causing an adverse cumulative effect can be countered by an argument that the introduction of larger turbines will not be read as one development type in the landscape. However, on balance, I would tend to be swayed by the first of these arguments."*

Following on from the above the planning report recognised that the Croagh wind farm development would be located in a gap between existing wind farms, it was set out that '*the visual impact is not to extend the extent of windfarms, so the visual impacts is not to extend the extent of windfarms in the view but rather consolidate*'. Overall, it was the conclusion of Leitrim County Council with respect to landscape that:

> *"I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and best*

practice measures. I am satisfied therefore that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape and visual."

Additionally, for full clarity the following was also the opinion of Sligo County Council with respect to the subject site under their Planning Report:

"I am of the opinion that the proposal will have a local moderate visual impact and from more distance views a not significant to slight visual impact. This impact has to be balanced and seen against the fact that the landscape is a highly moderated working landscape and against the need to develop key strategic infrastructure to meet the strategic aims of national & local policy".

Overall, the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate having been considered so by both Leitrim County Council and Sligo County Council and as demonstrated within the LVIA contained in the EIAR.

2.1.20 GOA 24- Landscape – Scenic Amenity

"The scenic and elevated area within which the proposed wind farm would be located already hosts too high a concentration of very large wind turbines; and, that if more turbines were to be permitted, the natural environment and the quality of the landscape would be irretrievably damaged;"

2.1.20.1 Response to GOA 24 – Scenic Amenity

Grounds of appeal 24 relates to the overall cumulative impact of the proposed development and its impact on the receiving landscape. In this regard we wish to reiterate the general argument outlined under the response to grounds of appeal 23 (above) in which it was demonstrated that the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate with the impacts being generally '*slight to moderate*'. Overall, as is outlined within the landscape assessment undertaken as part of the proposed planning application:

"...No cumulative effects will arise at two viewpoints. In the remaining 15 viewpoints it was found that the increase in spatial extent was predominantly 'Slight' to 'Moderate' While complete visual separation of the proposed turbines from the permitted turbines is achieved in one viewpoint, mostly 'Slight' to 'Moderate' separation was seen...

The proposed development will have a very limited cumulative impact on the receiving landscape. This is recognised by both Sligo County Council and Leitrim County Council who in their assessments outline that:

- Leitrim County Council
  "...I am satisfied therefore that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape and visual."
- Sligo County Council
  "I am of the opinion that the proposal will have a local moderate visual impact and from more distance views a not significant to slight visual impact...".

Again, we wish to reiterate to An Bord Pleanála that the principle of the proposed development with regards to its receiving landscape should be seen as wholly appropriate having been considered so by both Leitrim County Council and Sligo County Council.

2.1.21 GOA 25 - Tourism

"The large scale and heights of the proposed turbines are likely to undermine tourism in North Leitrim, and such potential adverse impacts on tourism must be taken into account by An Bord Pleanála; and,"

21.21 Response to GOA 25 - Tourism

The potential for significant effects on local tourism (and its impact on the local economy) is addressed in Chapter 5 of the submitted EIAR. Section 5.3 of the submitted EIAR provides an overview of tourism features within the wider vicinity of the Proposed Development. Section 5.3.2 notes that there are no key tourist attractions pertaining to the site of the proposed wind farm development and goes on to provide an extensive list of key tourist attractions within both counties. At the outset, it should be noted that the Croagh Wind Farm development is proposed in an area with an established history of wind energy development which currently co-exists with a strong, local tourism sector and accordingly the proposed development is not introducing a new or novel feature into the landscape. Section 5.3.3 provides a summary of multiple surveys carried out in Ireland and Scotland which looked at the relationship between tourism, the development of wind farms and tourist's attitudes towards wind farms. Under 'Wind Farms and Tourism Trends in Scotland' 2016 it was demonstrated that there is no relationship between the development of onshore wind farms and tourism employment at the level of the Scottish economy, at local authority level, nor in the areas immediately surrounding wind farm development. Further to this in a study carried out by Fáilte Ireland which assessed whether or not the development of wind farms impacts on the enjoyment of the Irish scenery by holidaymakers' results indicate that most visitors are broadly positive towards the idea of building wind farms in Ireland. With regard to the perceived impact of wind farms on sightseeing, the Fáilte Ireland report states:

> *"Despite the fact that almost half of the tourists interviewed had seen at least one wind farm on their holiday, most felt that their presence did not detract from the quality of their sightseeing, with the largest proportion (45%) saying that the presence of the wind farm had a positive impact on their enjoyment of sightseeing, with 15% claiming that they had a negative impact."*

Evidence to support the positive effect, in relation to the attraction of greater numbers of visitors to an area due to a wind energy development, can be seen with the existing Mount Lucas Wind Farm located in Co. Offaly. Since the winds farm's amenity walkway/cycleway facilities were opened to the public in 2016, over 180,000 visitors have used the facilities including 45,000 visitors in 2020 alone. The Mount Lucas Wind Farm is a larger development and includes a visitor centre, and while it is not intended that the proposed Croagh Wind Farm will accommodate the same number of visitors, it is anticipated that the provision of recreation and amenity infrastructure associated with the Proposed Development will generate interest and amenities for locals and visitors to the area alike.

As stated in Section 5.9.3 of the EIAR, currently there are currently no dedicated amenity walkways within the site of the proposed development. As part of the proposed development design, approximately 3.75km of amenity pathways including walkways and cycleways and a 24-car space carpark will be provided. Sections of new site roads will be developed and promoted for walking activities in additional to dedicated amenity walkways. There will be approximately 3.75 kilometres of dedicated amenity walkways constructed and linking into wind farm site roads. These dedicated areas will provide a safer visitor experience and open the site up to locals, tourists, trail runners etc. Full details of the proposed recreation and amenity infrastructure is included in Section 4.6 of this EIAR.

Overall, it is not considered that the proposed development would have an adverse effect on tourism in the vicinity of the proposed development.

21.22 Grounds of Appeal 26

"The Wind Energy Development Guidelines, 2006, which have not been subject to strategic environmental assessment, do not comply with EU law, and should not be used by An Bord Pleanála as a basis for granting planning permission for the proposed Croagh wind farm; while the Draft Revised Wind Energy Development Guidelines, published in December 2019 by the Department of Housing, Planning & Local Government, have neither been finalised nor adopted."

2.1.22.1 Response to Grounds of Appeal 26

With respect to the above point, we wish to note that at time of writing the Draft Guidelines have not yet been adopted, and the relevant guidelines remain those published in 2006. Notwithstanding this, and as previously noted in Section 2.2.7.4 of Chapter 2 of the EIAR, due to the timelines associated with the planning process for renewable energy projects it is possible that a version of the draft guidelines may be finalised during the consideration period for the current proposed development. Towards this end, it is anticipated that the Project will be capable of adhering to the relevant noise and shadow flicker standards.

The Proposed Development has been designed to minimise impacts on all sensitive environmental receptors and media. It is noted that the Board must now consider the merits of the proposed development on the basis of all relevant applicable planning policy, guidelines and parameters including the consideration of the proper planning and sustainable development of the area. It should also be noted that all elements of the proposed development have been assessed in terms of likely significant effects in and of themselves in the context of the surrounding environmental factors and the EIAR and NIS submitted provide clear and succinct analysis of all the relevant issues which will allow the Board to complete the relevant assessments and support its decision in relation to the Proposed Development.

3. CONCLUSION

This Response to the Third-Party Appeal as lodged in respect of planning permission ref: 20/120 seeks to provide the Board with relevant information to assist their determination of the Appeal. The Board have sufficient information available to make a decision with respect to the proposed development which demonstrates that the project as a whole is appropriate.

The proposal has been considered in full by the Planning Authority who have granted planning permission for the development, concluding:

> *"it is considered that subject to compliance with the conditions set out below that the proposed development would accord with European, national, regional and local planning and related policy, it would not have unacceptable impact on the landscape or ecology, it would not seriously injure the visual or residential amenities of the area or of property in the vicinity, will not adversely affect the archaeological or natural heritage of the area, and it would be acceptable in terms of traffic safety and convenience. The proposed development will make a positive contribution to Ireland's national strategic policy on renewable energy and its move to a low energy carbon future."*

In respect of the current application subject of this appeal, the Council have assessed the proposal and any potential impact on the site and its environs, and sensitive receptors and concluded that the proposed development is in accordance with proper planning and sustainable development of this area. Having considered all of the above, it is concluded that there is no basis of the grounds of appeals made and that the proposed development is entirely suitable.

We therefore request that the Board uphold the Planning Authority's decision and grant permission for the development as set out.

APPENDIX 1

STABILITY ANALYSIS OF SPECIFIC LOCATIONS AS PER LEITRIM COUNTY COUNCIL'S PLANNING CONDITION 18 (P. 20/120)

FEHILY TIMONEY

CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

Stability Analysis of Specific Locations as per Leitrim County Council's Planning Condition 18 (P. 20/120)

1. STABILITY ANALYSIS OF SPECIFIC LOCATIONS AS PER PLANNING CONDITION 18

Planning Condition 18 issued by Leitrim County Council states "Prior to the commencement of development, the developer shall demonstrate to the satisfaction of the Planning Authority, on the basis of the submission of detailed design / on site surveys that the 7 no. locations identified in the Peat Stability Assessment where the Factors of Safety for slopes were below the recommended minimum level of 1.3 calculated on the basis of LIDAR surveys have acceptable Factors of Safety above this minimum accepted level."

The following summarises a stability check undertaken at the seven locations identified in the Peat Stability Assessment Report where a Factor of Safety of less than 1.3 (but more than 1) was recorded. This stability analysis has been undertaken using the same methodology as in Chapter 7 of Appendix 8-1 of the EIAR, Geotechnical & Peat Stability Assessment.

1.1 Material Properties

A site visit was undertaken on 05th August 2021 to visit the seven locations in order to record peat depths, slope angles and peat strengths at each individual location. These records have been used in this updated assessment of these seven locations.

Table 1.1: Factor of Safety Results (Undrained Condition)

Location	Original Label	Easting	Northing	Peat Depth (m)	Slope Angle (degrees)	Peat Strength (kN/m²)
WP001	mk0v1_129	584319	823738	0.8	10	38
WP002	nol1_334	584078	824021	0.7	12	42
WP003	nol1_343	584717	823874	1.0	6	42
WP004	P41	584521	823899	0.4	15	38
WP005	P43	584374	823774	1.2	6	30
WP006	P47	584145	824040	1.2	12	45
WP007	agec_WP045	585969	822582	2.0	6	16

1.2 Stability Analysis

To assess the factor of safety for a peat slide, an undrained (short-term stability) and drained (long-term stability) analysis has been undertaken to determine the stability of the peat slopes at proposed settlement pond locations.

1. The undrained loading condition applies in the short-term during construction and until construction induced pore water pressures dissipate.
2. The drained loading condition applies in the long-term.

For the stability analysis two load conditions were examined, namely:

Condition (1): no surcharge loading
Condition (2): surcharge of 10 kPa, equivalent to 1m of stockpiled peat assumed as a worst case.

1.3 Resultsof Analysis

The undrained analysis for load condition 2 is considered the most critical load case as most peat failures occur in the short term upon loading of the peat surface. The results from the seven locations are summarised in Table 1.2.

Table 1.2: Factor of Safety Results (Undrained Condition)

Location	Original Label	Easting	Northing	Factor of Safety for Load Condition	
				Condition (1)	Condition (2)
WP001	mk0v1_129	584319	823738	**27.78**	**12.34**
WP002	nol1_334	584078	824021	**29.50**	**12.15**
WP003	nol1_343	584717	823874	**40.40**	**20.20**
WP004	P41	584521	823899	**38.00**	**10.86**
WP005	P43	584374	823774	**24.05**	**13.12**
WP006	P47	584145	824040	**18.44**	**10.06**
WP007	agec_WP045	585969	822582	**7.70**	**5.13**

The results from the drained stability assessment at the seven locations are summarised in Table 1.3.

Table 1.3: Factor of Safety Results (Drained Condition)

Location	Original Label	Easting	Northing	Factor of Safety for Load Condition	
				Condition (1)	Condition (2)
WP001	mk0v1_129	584319	823738	**2.92**	**2.77**
WP002	nol1_334	584078	824021	**2.81**	**2.45**
WP003	nol1_343	584717	823874	**3.85**	**4.14**
WP004	P41	584521	823899	**4.00**	**2.39**
WP005	P43	584374	823774	**3.21**	**3.77**
WP006	P47	584145	824040	**1.64**	**1.89**
WP007	agec_WP045	585969	822582	**1.92**	**2.76**

1 .4 Conclu sion

A stability assessment has been undertaken on the seven locations which previously recorded an FoS of less than 1.3. The stability assessment has recorded FoS results at each location of in excess of 1.3, which is considered acceptable. This indicates that there is a low risk of peat failure associated with the slopes at these seven locations.

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