An Bord Pleanála

Inspector's Report
ABP-310788-21
ABP-310789-21

Development	Wind Farm
Location	Bargowla, Boleymaguire, Braudphark, Derreens, Derrybofin, Derrycullinan, Derrycullinan Beg, Drummanacappul, Garvagh, Garvagh Glebe, Glassalt, Lisfuiltaghan, Seltan, Sheena and Tinnybeg, County Leitrim Carrowmore & Carrownyclowan, County Sligo
Planning Authority	Leitrim & Sligo County Councils
Planning Authority Reg. Ref.	Leitrim – 20120 Sligo - 20251
Applicant	Coillte CGA
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	First & Third Party
Appellant(s)	Coillte CGA Wild Ireland Defence CLG Wind Aware Dromahair

Observer(s)	Alannah Caffrey
	Adrienne Diamond & Graham Robertson
	Andrea Rankin & Others
	Brigitte Christoph
	Eileen Gibbons
	Gordon Hutchinson
	Kevin Duffy
Date of Site Inspection	14th & 15th June, 2022
Inspector	Kevin Moore

CONTENTS

1.0 Site Location and Description

1.1. The site of the proposed development is located within the townlands of Bargowla, Boleymaguire, Braudphark, Derreens, Derrybofin, Derrycullinan, Derrycullinan Beg, Drummanacappul, Garvagh, Garvagh Glebe, Glassalt, Lisfuiltaghan, Seltan, Sheena and Tinnybeg in north County Leitrim and in the townlands of Carrowmore and Carrownyclowan in south-east County Sligo. It is on the north-eastern slopes of Carrane Hill, approximately 1.7km north-east of its summit, and north-west of Corrie Mountain. The site area is 309.22 hectares, of which 265.14 hectares are in County Leitrim and 44.08 hectares are in County Sligo. It is located approximately 5km west of Drumkeeran and 7km south-east of Dromahair. The established land use is primarily evergreen Coillte forestry, together with forestry roads, and bogland and it also includes agricultural land uses at its south-eastern end closer to Drumkeeran. There is a lake, Lough Nacroaghy, relatively centrally located within the site. The site is covered in blanket bog and the topography is undulating.

2.0 Proposed Development

2.1. The proposed development would comprise:

- Construction of 10 no. turbines with a maximum overall blade tip height of 170 metres and associated hardstand areas;
- A 38kV electrical substation, including a control building with welfare facilities, associated electrical plant and equipment, security fencing, underground cabling, and wastewater holding tank;
- Associated underground electrical and communications cabling connecting the turbines to the proposed substation;
- A permanent meteorological mast with a maximum height of up to 100 metres;
- Upgrading of existing tracks and roads and provision of new site access roads;

- Works associated with the connection of the proposed wind farm to the national electricity grid via underground cabling to the existing Garvagh substation;
- The partial demolition and alteration of two agricultural buildings and associated junction access and road works to the existing yard, agricultural buildings and agricultural lands to provide a link road for construction traffic off the R280;
- A borrow pit;
- 2 no. peat and spoil repository areas;
- 2 no. temporary construction compounds;
- Recreation and amenity works, including marked trails, boardwalk, viewing area and signage;
- Site drainage;
- Permanent signage;
- Ancillary forestry felling; and
- Associated site development works.

2.2. The applications seek a ten-year permission.

2.3. Details submitted with the applications include Environmental Impact Assessment Reports (EIARs), and Natura Impact Statements which consider the project in its entirety.

2.4. The applications included letters from property owners giving consent to the making of the application.

3.0 Planning Authority Decisions

3.1. Leitrim County Council

3.1.1. Decision

On 15th June 2021, Leitrim County Council decided to grant permission for the proposed development subject to 34 conditions.

3.1.2. Planning Authority Reports

Planning Reports

The Planner set out the policy context and noted reports and third party submissions received. The applicant's EIAR was considered to be lacking to allow for EIA and further information was considered necessary on a range of factors. Regarding appropriate assessment, it was considered that a number of issues regarding European sites and their protection needed to be explored further. The principle of the development was considered appropriate. The community benefit arising was also recognised. Transport deficiencies and needs were identified. Details on decommissioning, an invasive species management plan and waste management were seen to be required. Comparisons of existing turbines with those proposed were made. The visibility of the proposed turbines in the area was referenced. Concerns were expressed about visual impact from sensitive tourism landscapes and viewpoints but it was concluded that generally the proposed development would not have an adverse impact on any sensitive landscape identified in the County Development Plan. A request for further information was recommended and this included information requests sought in other reports.

Other Technical Reports

The District Engineer set out development charges required for haul route road works, requested further information on sight distances, indicated deficiencies of local roads, and noted the lack of details on the proposed visitors' car park and on river and stream crossings.

The Water Services Engineer had no objection to the proposal.

The Access Officer set out a schedule of conditions relating to the publicly accessible amenity elements of the proposal in the event of a grant of permission. Requirements on building control in relation to the proposed substation were also set out.

The Environment Engineer referenced the extent of wind farms in the locality, landslide incidents in the area, water quality impacts, data concerns on water, shadow flicker, and noise, invasive species management, asbestos management, and management/disposal of waste. A schedule of further information was requested.

The Fire Officer set out emergency access and substation requirements.

3.1.3. Prescribed Bodies

The Department of Culture, Heritage and the Gaeltacht requested an archaeological assessment, referred to assessment of effects on SCI species for Special Protection Areas in the wider area, the need for assessment of impacts on Currane Bog pNHA, the need to provide details on how the project would avoid loss of biodiversity, and requested further details on peat loss and stability, drainage, hen harrier, curlew, and bats, as well as cumulative effects of collision mortality.

Inland Fisheries Ireland requested further information relating to geotechnical issues on peat stability, set out the requirements and concerns for road construction and earth works, as well as drainage design inadequacies and requirements, surface water management requirements, water course crossing provisions, and the extent of the Construction Environmental Management Plan.

Irish Aviation Authority requested the applicant to engage with Sligo and Ireland West airports to ascertain whether there is any impact on flight procedures or communication, navigation and surveillance equipment. It requested an aeronautical safety screening assessment for both airports. It was recommended that, in the event of a grant of planning consent, the applicant should be conditioned to contact

IAA to agree an aeronautical obstacle warning light scheme, provide coordinates for each wind turbine location, and to notify the Authority of the intention to commence crane operations.

3.1.4. **Third Party Observations**

61 third party submissions were received. They raised a wide range of planning issues. The principal issues of concern are raised in the third party and observer submissions to the Board.

A request for further information was issued by the planning authority on 22nd September 2020 and a response to this request was received on 7th April 2021. Further public notices were received on 21st April 2021.

Forty third party submissions were received by the planning authority following the further information response.

The reports received following these submissions may be synopsised as follows:

The Access Officer recommended that any grant of permission should include the conditions and advice recommended in his earlier report.

The Water Services Engineer stated there were no other comments to make other than that already provided.

The Fire Officer had no objection to the granting of permission.

The Environment Engineer noted the need for compliance with the 2019 Draft Revised Wind Energy Guidelines if they are adopted during the planning application process. The potential for impact from the proposal and from cumulative impact on water quality was referenced and this potential was seen as a major concern. The cumulative impact of existing and proposed wind farms on habitats and qualifying interest of Lough Gill SAC at this environmental and nutrient sensitive location was also seen as a serious concern. Observations were made on noise, forestry clear-

felling, surface water management, and construction and it was recommended that these be taken into consideration in any grant of planning permission.

The Capital Projects Department Engineer noted the area in which the site is located has been subject to numerous landslides in the past. Reference was made to the applicant's peat stability assessment and the need to confirm risk assessment findings. The need for compliance with control measures and updating the Construction Buffer Zone Plan were also referred to. Proof that all recommendations of the applicant's Surface Water Management Plan would be complied with if permission was granted was also requested. A schedule of conditions was set out.

The Planner referred to the issues in the further information request and the applicant's responses to these issues. An outline of third party submissions was also provided. With regard to EIA, the Planner was 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 and he was further satisfied that the proposal would not have any unacceptable direct, indirect or cumulative effects. Regarding appropriate assessment, it was concluded that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of European site nos. 001976, 000627, 001435 or any other European site. The proposal was seen to be acceptable in principle and was in keeping with renewable energy policy, with greater carbon savings made than lost. It was considered that the proposal would not seriously injure residential amenity by way of shadow flicker, dust, noise, and visual intrusion. Reference was made to the findings in other reports received on roads and archaeology. A grant of permission, subject to 34 conditions, was recommended.

3.2. Sligo County Council

3.2.1. Decision

On 15th June 2021, Sligo County Council decided to grant permission for the proposed development subject to 20 conditions.

3.2.2. **Planning Authority Reports**

Planning Reports

The Planner noted planning history for wind farm development in the vicinity, the policy context for the development, reports received, and third party submissions. It was recommended that further information on issues relating to appropriate assessment be sought. Reference was made to the findings in the applicant's EIAR. The area was considered suitable for wind farm development and the principle of the development was in accordance with planning policy. The proposal was seen to have an acceptable impact on the rural character and visual amenities of the area. It was submitted that there are no noise sensitive locations within County Sligo that would be impacted by the proposal and that there are no dwellings in County Sligo resulting in no residual shadow flicker impacts. It was acknowledged that there are no traffic implications for County Sligo. It was recommended that further information be sought based upon the issues raised in submitted reports.

Other Technical Reports

The Environment Engineer had no objection to the proposal subject to a schedule of conditions.

The Area Engineer recommended permission be granted.

3.2.3. **Prescribed Bodies**

Irish Aviation Authority requested the applicant to engage with Sligo and Ireland West airports to ascertain whether there is any impact on flight procedures or communication, navigation and surveillance equipment. It requested an aeronautical safety screening assessment for both airports. It was recommended that, in the event of a grant of planning consent, the applicant should be conditioned to contact IAA to agree an aeronautical obstacle warning light scheme, provide coordinates for each wind turbine location, and to notify the Authority of the intention to commence crane operations.

Inland Fisheries Ireland noted the importance of watercourses at this location as salmon and trout spawning and nursery habitat and the importance of the catchment for lamprey and crayfish. Reference was made to the watercourses adjacent to and running through the site, stated as being of good ecological status in the EIAR, which are under environmental pressure and the status has now deteriorated to poor ecological status, requiring robust protection to allow recovery back to good status. A landslide in the immediate vicinity caused by wind farm construction activities in 2008 was acknowledged and the impact on fish and the Owengar River were noted. A second landslide in 2020 and its impacts on the Owengar River was also referenced. It was considered that there was significant potential for the proposed development to have a negative impact on the fisheries resource. Serious concerns were expressed about the potential impact, primarily during the construction phase , in particular the geotechnical aspects, site drainage and potential runoff to watercourses. IFI requested further information on 26 issues relating to geotechnical matters, road construction and earthworks, drainage, surface water and monitoring, and watercourse crossings. In the case that planning permission was granted, 10 matters were set out to be addressed through conditions. Reference was also made to the importance of streams in the upper reaches of the river systems in this area for salmonid production, their sensitivity to pollution, the need for protection in terms of water quality, and the requirement to meet WFD targets.

An Taisce raised concerns relating to the impact on peat stability and landslide risk, cumulative impact of wind farms on bird disturbance, impact on Whooper swan, and water quality impacts on watercourses in the vicinity.

The Department of Culture, Heritage and the Gaeltacht recommended that a thorough archaeological assessment be carried out over the entire site to assess potential impact, a specific assessment be undertaken of the movement of the SCI species for Lough Arrow SPA and Cummen Strand SPA into, out of and between

European sites, that there is a need for the NIS to address the likelihood of effects for hydrologically linked habitats and species from the proposed development and appropriate mitigation for European sites downstream, clarification be sought on impacts on Carrane Hill Bog NHA, and that the applicant outlines how the proposal will avoid a net loss of biodiversity and include relevant mitigation and/or compensatory measures. Reference was also made to peatland impacts, lack of available detail on water, peat stability, drainage, and siting of peat repositories. Adequacy of bird surveying was questioned, impacts on a range of birds of conservation value were noted, bat mortality and monitoring and survey methodology were referenced, and further information on cumulative effects were requested.

3.2.4. **Third Party Observations**

A large number of third party submissions opposing the proposed development was submitted to the planning authority. They raised a wide range of planning issues. Many of the principal issues are raised in the third party and observer submissions to the Board.

A request for further information was issued by the planning authority on 18th September 2020 and a response to this request was received on 7th April 2021. Further public notices were received on 21st April 2021.

Further third party submissions were received by the planning authority following the further information response.

The reports received following these submissions may be synopsised as follows:

Inland Fisheries Ireland requested a full set of drawings with culvert numbers and a drainage layout plan with corresponding culvert numbers. It set out requirements in relation to workings on and in the vicinity of watercourses and on drainage and settlement. The re-siting of Turbines 8 and 9 and the temporary construction compounds was recommended, having regard to the factors of safety derived for their locations. The extent of proposed road upgrading was seen to result in a large surface area for runoff and drainage and it was requested that this be considered in

terms of the likely impact on water quality. An additional water monitoring location further upstream was requested. It was recommended that an Environmental Working Group be put in place for the construction phase and that should permission be granted the final detailed SWMP and settlement pond monitoring programme and parameters and triggers be agreed. Construction management requirements were also set out. Emphasis was again placed on the sensitivity of streams in the upper reaches of river systems and the need to ensure the development does not negatively impact on the water quality of these streams.

The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media noted the siting of a number of Annex I bird species and submitted that the loss of Annex I habitats outside of SACs should be avoided wherever possible. The Department reiterated its concerns in relation to peat stability. The sensitivity of the location for Whooper swan, Golden Plover, and Hen Harrier was noted and the potential impacts were again emphasised. It was submitted that mortalities over the lifetime of the project may have a significant impact on wintering and breeding Golden Plover populations locally. It was submitted that the absence of operational monitoring data for other wind farm development in the area does not allow for an adequate assessment of the significance of cumulative effects of mortality on avifauna. The Department set out its requirements in relation to monitoring.

The Planner noted the responses to the further information request and the comments received in the reports to the planning authority. With regard to appropriate assessment, it was concluded that the proposed development would not adversely affect the integrity of any European site. With regard to EIA, it was submitted that, subject to appropriate conditions and mitigation, the proposed development would not have any significant, unacceptable, direct, indirect, or cumulative effects on the environment. The previous planning assessment on the principle of the development, impact on the rural character and visual amenities of the area, on noise and shadow flicker, and on traffic was repeated. The further information response was seen to adequately address the planning authority's issues of concern. A grant of permission, subject to a schedule of conditions, was recommended.

4.0 Planning History

4.1. I have no record of any previous planning application or appeal relating to the site.

5.0 Local Planning Policy Context

5.1. Leitrim County Development Plan 2015-2021

The duration of the existing Leitrim County Development Plan has been extended to 31st March 2023.

Wind Farms

The Council acknowledges the role of wind energy in reducing the reliance on non-renewable sources of energy, reducing the dependency on imported fuels and in moving towards a 'low carbon' society. The Council is also aware of the environmental impacts associated with windfarms and the public concerns raised in respect to such developments. Whereas the Council is disposed towards the development of windfarms, strict development management measures will operate and the Council will only permit such developments where it can be clearly demonstrated, to the satisfaction of the Planning Authority, that such developments are in accordance with National and Regional Guidance and in particular the criteria set out herein. In deciding on the suitability of an area to accommodate windfarm development, the Council will be guided by the Department of Environment, Heritage and Local Government Wind Energy Guidelines 2006 or any updated version of the Guidelines. (The Council is aware that a revision of the Guidelines is currently under consideration by the Department).

Development that can clearly demonstrate, to the satisfaction of the Planning Authority, that they would not have a significant adverse impact on the amenities of a dwelling or a building occupied, or capable of being occupied, by people, or would not compromise the integrity of an environmentally sensitive area, will be 'open for consideration'. The location of the development within easy access to the electrical grid and having suitable windspeeds, will be important factors in determining the suitability of a site to accommodate a Windfarm. Conversely, development that

would have a significant adverse impact on the amenities of a dwelling or a building occupied by people, or would compromise the integrity of an environmentally sensitive area, will not be favoured by the Planning Authority.

Environmentally sensitive areas have been identified in the Plan. These include:-

- The Natura 2000 network (cSAC's and SPA's)
- Special Areas of Protection
- Natural Heritage Areas
- Proposed Natural Heritage Areas
- Areas of Outstanding Natural Beauty
- Areas of High Visually Amenity
- Outstanding Views and Prospects
- Areas of Archaeological Importance including those recorded on the list of Protected Monuments
- Areas of Geological Importance including those established under the Irish Geological Heritage (IGH) Programme.

The site is not within any designated environmentally sensitive areas in County Leitrim.

It is the policy of the Council that all wind farm applications will be assessed on the full range of criteria including those mentioned herein and those identified in the Wind Farm Development Guidelines, 2006 (or any subsequent update) published by the Department of Environment, Heritage and Local Government (Policy 128).

Landscape Character

The area to the south-east of the site, i.e. Corrie Mountain, lies within a designated 'Area of High Visual Amenity'. Lough Gill and its immediate hinterland within County Leitrim lies within a designated 'Area of Outstanding Natural Beauty'.

Protected Views and Prospects

A number of outstanding views and prospects are identified in the Plan, which are views primarily of the county's lakes and upland areas from public roads. They are seen as an important resource for the development of tourism in the county. They

include V15 which is a view towards Carrigeencor Lake from the local road to the north of the lake. It is the Council's policy to protect these views from intrusive development (Policy 102) and it is an objective to protect the views.

5.2. Sligo County Development Plan 2017-2023

Energy

Policies include:

SP-EN-2 - Facilitate the sustainable production of energy from renewable sources, energy conversion and capture in forms such as wind power, hydro-power, wave-generated energy, bioenergy, solar technology and the development of Waste to Energy/Combined Heat and Power schemes at appropriate locations and subject to compliance with the Habitats Directive.

All such development proposals will be assessed for their potential impact on urban and rural communities, Natura 2000 sites, designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes and scenic views, as well as in accordance with strict location, siting and design criteria.

SP-EN-7 - Protect significant landscapes from the visual intrusion of large-scale energy infrastructure.

Landscape Character

The site is located within an area designated a 'Normal Rural Landscape'. The Plan states that these are areas with natural features (e.g. topography, vegetation) which generally have the capacity to absorb a wide range of new development forms and that these are largely farming areas.

The site is immediately adjoining a 'Sensitive Rural Landscape'. These are areas that tend to be open in character, highly visible, with intrinsic scenic qualities and a low capacity to absorb new development.

The ridgeline of Carrane Hill within this Sensitive Rural Landscape is designated a 'Visually Vulnerable Area'. This is an area seen as a distinctive and conspicuous natural feature of significant beauty or interest, which has extremely low capacity to absorb new development.

Other Sensitive Rural Landscapes and Visually Vulnerable Areas in the vicinity include the northern and southern shorelines of Lough Gill.

There are designated scenic routes to the west/south-west of the site and in the vicinity of Lough Gill to the north. Scenic routes are public roads from which the views and prospects to Visually Vulnerable features are to be preserved.

Scenic Route 66 relates to Local Road L-1101 from north of Conways Cross extending along the southside of Carran Hill to the Roscommon County boundary and it is the views of Carran Hill that are protected.

Scenic Route 13 relates to the R286 from Sligo to the Leitrim County boundary and it is the views of Lough Gill and Colgagh Lough that are protected.

Policies include:

P-LCAP-1 - Protect the physical landscape, visual and scenic character of County Sligo and seek to preserve the County's landscape character.

Planning applications that have the potential to impact significantly and adversely upon landscape character, especially in Sensitive Rural Landscapes, Visually Vulnerable Areas and along Scenic Routes, may be required to be accompanied by a visual impact assessment using agreed and appropriate viewing points and methods for the assessment.

P-LCAP-2 - Discourage any developments that would be detrimental to the unique visual character of designated Visually Vulnerable Areas.

P-LCAP-3 - Preserve the scenic views listed in Appendix F and the distinctive visual character of designated Scenic Routes by controlling development along such Routes and other roads, while facilitating developments that may be tied to a specific location or to the demonstrated needs of applicants to reside in a particular area.

P-LCAP-4 - Strictly control new development in designated Sensitive Rural Landscapes, while considering exceptions that can demonstrate a clear need to locate in the area concerned.

Ensure that any new development in designated Sensitive Rural Landscapes:

- does not impinge in any significant way on the character, integrity and distinctiveness of the area;
- does not detract from the scenic value of the area;
- meets high standards of siting and design;
- satisfies all other criteria with regard to, inter alia, servicing, public safety and prevention of pollution.

Development Standards

Renewable Energy Developments

The Planning Authority acknowledges the current need to adopt a more sustainable approach to energy production, through the promotion of facilities or installations that generate renewable energy. Such developments will be considered subject to the following criteria:

- visual impact on surrounding landscape;
- impact on designated sites, natural and built heritage, water bodies, groundwater, soils and air;
- impact on settlements or individual rural dwellings;
- impact on existing walking routes / rights-of-way / public access to the countryside.

All proposals for renewable energy developments should be discussed with the local authority at pre-planning application stage.

Wind Energy Developments

The Planning Authority will have regard to the DoEHLG's Wind Energy Development Guidelines (June 2006) and any revised guidelines, when considering wind energy applications.

The Guidelines outline the main criteria to be used in assessing development proposal. These criteria include:

- environmental impact – effects on landscape, natural and archaeological heritage;

- seeking visual harmony and balance – choice of turbines, towers, colour and siting;
- keeping secondary structures to a minimum – buried on-site cabling, minimal fencing, transformers placed inside towers where possible;
- keeping access roads to a minimum – using established roads where possible and following natural contours if roads are necessary;
- managing the building site – removing waste, avoiding erosion, replanting the land.

In assessing proposals for wind farms, the Council will require detailed information to Environmental Impact Assessment (EIA) standard. Assessment in accordance with government guidelines will have regard to visual impact (including the scarring effect of access roads), noise, electro-magnetic interference, ecological impact, safety (including aircraft safety and navigation) and land use implications.

Proposals will generally be discouraged in or close to pNHAs, cSACs, SPAs, designated Sensitive Rural Landscapes, Visually Vulnerable Areas, Scenic Routes, protected views, Zones of Archaeological Potential.

6.0 The Appeals

6.1. Grounds of First Party Appeal

The grounds of the appeal may be synopsised as follows:

(a) Having regard to the Derryadd judgement (2021, IEHC 390), the appeal is lodged to facilitate the provision of greater clarity in terms of the nature of the consented development.

(b) It is requested that a condition be included specifying the nature and scale of the turbines which have been consented. Suggested wording is submitted.

The appellant identifies the turbine parameters used in the range of assessments carried out as part of the planning application details provided. It is also clarified that detailed site layout plans for the infrastructure have been provided in the application.

(c) It is requested that the Board grant permission for that part of the development in County Sligo, defining the appropriate limits with regard to the operational noise of the proposed development by way of the inclusion of a condition. A condition similar to that issued by Leitrim County Council in its decision is recommended.

6.2. Grounds of Appeal by Wild Ireland Defence CLG

The grounds of the appeal may be synopsised as follows:

- The application does not comply with the requirements of the planning regulations.
- The EIAR is not compliant with the EIA Directive.
- The planning authority failed to carry out a proper Environmental Impact Assessment.
- The planning authority failed to carry out an Appropriate Assessment according to the caselaw of the CJEU.
- It is not possible for An Bord Pleanála, having carried out its legal functions *de novo* to grant permission for this development.

6.3. Grounds of Appeal by Wind Aware Dromahair

The grounds of the appeal may be synopsised as follows:

- There are too many uncertainties in the application to allow a grant of permission and if the Board attempts to undertake an appropriate assessment on the basis of the information provided, the results of such an assessment could be legally challenged.
- An Bord Pleanála does not have the legal power to grant planning permission if the appropriate assessment has lacunae, removing all reasonable scientific doubt as to the effects of the proposed works on a Natura 2000 site.

- The lack of precise detail and lack of certainty about some critical elements leave no choice to the Board except to refuse permission, given the judgement in Sweetman -v- An Bord Pleanála (2021) IEHC 390.
- The application for connection to the grid is incomplete and contains conflicting information.
- Justification of a necessity for the wind farm has not been provided.
- The consideration of reasonable alternatives fails to comply with the requirements of the EIA Directive, undermining an essential goal of the EIA process.
- The Programme for Government does not support further onshore wind farm development.
- The Northern and Western RSES provides no policy support for the application.
- Offshore wind farms are now technically achievable and permitting the proposal would lock in a technology that will be outdated in less than a decade.
- The peatlands comprising a portion of the site could be restored to functionality and the proposal is opposed to climate mitigation policy.
- There is an elevated risk of peat slides being triggered as a result of the proposed construction on the site in an area with a high density of landslides.
- There is a non-negligible risk that an exceptionally heavy rainfall event could overwhelm the proposed surface water catchment system.
- The applicant's response to the risk of a peat slide is unsatisfactory.
- The proposed stilling ponds or settlement ponds would not work effectively when confronted with suspended peat fibres.
- The proposal could have a significant adverse impact on water quality and the wider environment and has the potential for cumulative impact with nearby wind farms.

- The proposal would create a high risk of increasing the nutrient and suspended solid loading in the downstream receiving waters.
- The amount of bird mortality caused by collision with turbines could be significant for wintering bird species.
- The site is a foraging ground for hen harrier.
- The planning authority's conditions are not adequate to provide the necessary level of protection to the environment, European sites, wildlife, and local residents.
- The layout and description of the proposal has not changed in any significant way despite serious issues raised by the Council in its further information request.
- Combined noise levels will become a significant nuisance. Significant noise nuisance is already occurring as a result of a nearby wind farm.
- The wind farm is disproportionate in size for the site, transforming the landscape so as to detrimentally alter its character.
- The scenic area where the wind farm would be located already hosts too high a concentration of large wind turbines. If more turbines were to be permitted the landscape would be irretrievably damaged.
- The turbines are likely to undermine tourism in North Leitrim.
- The Wind Energy Development Guidelines 2006 do not comply with EU law and should not be used as a basis for granting permission. The Draft Guidelines have neither been finalised nor adopted.

6.4. Applicant's Response to Third Party Appeals

The Applicant's responses to the other appeals may be synopsised as follows:

<u>Response to Wind Aware Dromahair</u>

- The planning application material in relation to appropriate assessment is comprehensive and entirely adequate to allow the Board to fully assess the

proposed development and there is no lacuna in information. Furthermore, in light of the Derryadd judgement, additional information has been provided to clarify the nature of the development.

- Regarding the Derryadd judgement, the first party appeal is referenced.
- Regarding the grid connection, the route is detailed within the red-line boundary and the grid connection does not require works on lands that are not under the control of the applicant. The route is fully described and there is no uncertainty as to the route or nature of works. Excavations within the public road network will require a road opening licence from the Council. The management of existing underground services is outlined in the Construction Methodology for the grid connection.
- Regarding the need for the development, Section 1.5 and Chapter 2 of the EIAR are referenced.
- Regarding alternatives, reference is made to Chapter 3 of the EIAR.
- Regarding planning policy, reference is made to Chapter 2 of the EIAR, the Programme for Government, the Climate Action Plan, the National Planning Framework, and the Northern and Western RSES.
- Regarding the issue of offshore versus onshore wind energy, support for additional renewable energy, including both onshore and offshore wind energy, is provided for in the Climate Action Plan. The development of one renewable energy source does not prejudice or hinder another.
- Regarding the restoration of peatlands, reference is made to the applicant's Peatland Enhancement and Biodiversity Management Plan, Section 2.9 of the further information submission to the planning authority, and Sections 6.7.3.1.2 and 10.2.3 of the EIAR.
- Regarding peat stability, reference is made to the findings of the peat stability assessment and proposed mitigation, the Surface Water Management Plan, and the planning authority's considerations. An updated peat stability assessment is attached with the response.
- Regarding hydrology, the approach taken is to limit the effects on water quality by extreme events by having a multi-element Sustainable Drainage

System, with no reliance on any one drainage/water quality control element. The risk assessment indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure at turbine locations and along access roads.

- Regarding peat stability, the proposed responses to a peat slide are not considered to be inadequate. The contingency measures in Section 12 of the Peat & Spoil Management Plan are best industry practice. The risk assessment indicates a 'negligible' to 'low' risk rating in regard to the potential for peat failure. The risk is not 'uncertain'.
- Regarding the settlement ponds, the design approach is appropriate to protect water quality from the proposed development.
- Regarding water quality, reference is made to the updated drainage plans submitted as further information and to drainage management and monitoring. The potential to create cumulative water quality impacts with other wind farms is negligible.
- Regarding nutrient loading, reference is made to the SuDs drainage system, settlement pond design standards, and surface water quality protection measures for tree felling.
- Regarding ornithology, reference is made to Section 7.10.2.2 of the EIAR and the further information response. Further considerations are offered on the DAU submission to the planning authority.
- Regarding the conditions of the Council's planning decision, the conditions are wholly appropriate, clear and strike an appropriate balance between protection of amenities while facilitating the development. It is noted that the wording and nature of conditions, in the event of a favourable consideration, will be imposed by the Board.
- Regarding layout, the further information addressed all maters raised in full.
- Regarding noise, the noise impact assessment takes full account of the cumulative noise impact of the proposal, Garvagh Glebe and Black Banks wind farms and has demonstrated that the cumulative noise levels would comply with relevant guidelines. The development would comply with the Council's noise condition and provisions for monitoring are outlined.

- Regarding the turbine size and landscape impact, the site is in an area with a history of wind energy development. Reference is made to the landscape assessment in the EIAR and the planning authority's considerations.
- Regarding scenic amenity, the principle of the development should be seen as wholly appropriate, with the impacts being generally 'slight to moderate'. The landscape assessment findings and the planning authorities' considerations were again referenced.
- Regarding tourism, reference is made to Chapter 5 of the EIAR. The proposal is not introducing a new or novel feature into the landscape.
- Regarding the Wind Energy Guidelines, these remain the relevant guidelines.

Response to Wind Ireland Defence

- The concerns raised refer entirely to general matters of process and the appeal does not point to any specific shortcoming in the application and decision.
- The Board can absolutely grant permission for the proposal regardless of any previous consideration, reporting or decisions that have arisen in relation to the proposed development, with the Board considering the proposal *de novo*. Should the Board require further plans, drawings or particulars it can seek additional detail.
- Reference is made to the first party appeal and its purpose.
- No specific shortcomings were identified in relation to the EIAR, EIA or the reporting of the planning authority. The application documentation is comprehensive in detail and scope and wholly addresses potential environmental impacts. The EIAR considers a range of turbine types and assesses the worst case scenario. The NIS assessed the worst case scenario as the same project design parameters and description in the EIAR were considered. The permissions issued only granted permissions within the specified parameters.

- No specifics are provided in relation to the questioning of the Board's ability to carry out an appropriate assessment. Following the appeal, the Board is now the competent authority. Comprehensive details and analysis are set out in the NIS and this provides the required scientific certainty to allow the Board to complete an appropriate assessment.

6.5. Planning Authority Response – Leitrim County Council

The planning authority's response to the appeals may be synopsised as follows:

First Party Appeal

- The planning authority has no objection to the clarity suggested with respect to Condition 1 of the permission should the Board be agreeable to same.

Third Party Appeal from Wind Ireland Defence

- The planning authority reiterates that it was satisfied that, on the basis of the accepted norm for wind farm development applications, the submitted application adhered to the requirements set out in the Planning and Development Regulations. Arising from the Derryadd judgement, this issue can be remedied by requesting the submission of revised plans or particulars and/or amending Condition 1.
- The proposed development is now to be considered *de novo* by the Board.

Third Party Appeal from Wind Aware Dromahair

- The planning authority relied heavily on the expertise of various statutory bodies to assist in its consideration of complex issues and the basis of the reasoning of the planning officers is presented in their respective reports.
- The development is sited in an area which constitutes an existing windmill landscape as there is a cluster of existing wind farms, albeit of smaller scale in terms of height in the vicinity. This was a substantive consideration by the planning authority in considering the visual impact.

- The quantities of materials required to be brought to the site is to be expected in any commercial wind farm proposal of a similar scale. Similarly, the felling of forestry would be required and replanting requirements would be subject to a separate consent process.
- Of the 15 townlands in which the proposed development would be located, 4 townlands or parts thereof are contained within an area designated as being of High Visual Amenity. The County Development Plan does not seek to introduce development management restrictions within the area of the proposed development based on visual considerations.
- The contention that the planning authority failed to comply with the requirement to undertake an appropriate assessment is not substantiated in any meaningful manner.
- The planning authority is satisfied that the EIAR extended to the full extent of the project, disregarding the existence of an administrative boundary, and it undertook EIA as required.
- The contention that Project Ireland 2040 does not support further onshore wind is simply a nonsense.
- The references to the National Development Plan 2018-2027 seem to deviate from the actual text and introduce subjective commentary to support the submitted argument. There is no reference to a multiplicity of small-scale producers using solar and wind.
- The national policy framework strongly recognises and supports further onshore wind developments such as that proposed.
- Regarding the RSES, the commentary provided is subjective.
- The necessity for the wind farm has been clearly outlined in the EIAR and the consideration of alternatives adhered to the guidance provided by the Department.
- On the issue of stability of peat, both planning authorities were satisfied in relation to the responses submitted. The Board is referred to the report from the Senior Engineer in Capital Projects.

- In relation to water quality, a schedule of conditions was outlined in the Environment Engineer's report rather than a recommendation to refuse and the decision of the planning authority had regard to the recommendation received.
- In relation to potential effects on fisheries, the Board is directed to the reports from IFI and DAU who outlined conditions to be included.
- The basis of the further information request in relation to the impacts on birds derived from the DAU submission and the subsequent DAU response did not recommend a refusal of permission but rather suggested conditions.
- Adequate consideration was given to the potential effects of the proposal on human beings.
- Regarding noise from the existing Garvagh Glebe wind farm, the operators are co-operating with the local authority.

The Board is asked to uphold the planning authority's decision.

6.6. Planning Authority Response – Sligo County Council

In response to the first party appeal, the planning authority had no objection to the inclusion of additional appropriate conditions relating to turbine dimensions and noise criteria.

In response to the appeal from Wild Ireland Defence CLG, the planning authority submitted that the application complied with the planning regulations, it was compliant with the EIA Directive, the potential environmental impacts were assessed in accordance with the EIA Directive, and a suitable appropriate assessment was undertaken.

6.7. **Observations**

The observation from Alannah Caffrey raises concerns relating to conflicts between the provisions of the Climate Action and Low Carbon Development (Amendment) Act 2021 and the proposed development

The observation from Adrienne Diamond and Graham Robertson raises concerns relating to cumulative noise impact, shadow flicker, impact on a social farming business, uncertainties of turbine model and its effects, peat slippage risk, impact on tourism, adequacy of the visual impact assessment, the in-house expertise of the planning authorities to evaluate the proposal, and reaching wind farm saturation in the area.

The observation from Andrea Rankin, Sean Maxwell and other raises concerns relating to disturbance, shadow flicker, noise, impact on wildlife and landscape, water pollution, property devaluation

The observation from Dr Brigette Christoph raises concerns relating to inadequacy of flora and fauna surveys, consideration of renewable energy alternatives, effects on eel, impact on protected birds and inadequacy of surveys, impact on bats, cumulative effects with other wind farms, and adverse impacts on tourism.

The observation from Eileen Gibbons raises concerns relating to impact on tourism, visual amenity, noise, ecology, water quality, and the aquatic environment, with particular emphasis on the effects from a landslide in the upland bog. The observer's submissions to the planning authority were attached.

The observation from Gordon Hutchinson raises concerns relating to the outdated nature of the Wind Energy Guidelines, the visibility of the turbines, the policy of locating wind farms offshore, noise, shadow flicker and public health impacts, the independence of the EIAR and NIS, and impact on biodiversity.

The observation from Kevin Duffy raises concerns relating to the independence of the applicant's EIAR, effects on the corncrake and hen harrier, impact on the observer's house, inadequacy of existing Wind Guidelines, public consultation, health impacts, property values, landslides, and noise and shadow flicker.

6.8. **Further Responses**

Wind Aware Dromahair

The Appellant's responses to the other appeals may be synopsised as follows:

First Party Appeal

(d) The first party appeal is unusual, where the applicant has asked the Board to undertake an action which would allow a significant change in the description of the turbines and certain other components of the proposed development for the sole purpose of escaping the consequences of the High Court judgement in *Sweetman -v- An Bord Pleanála* (2020/557 JR).

(e) The appeal is an admission that the original application is seriously deficient in detail.

(f) The proposed additional text is incapable of remedying the deficiencies in the application as it falls short of specifying the details of the development necessary to meet the standards applied by Articles 22 and 23 of the Planning and Development Regulations.

(g) An attempt by the Board to remedy the deficiencies would damage the Board's function as an independent adjudicator, assisting the applicant to remedy a defective application, and would be in conflict with the Board's statutory duty, leaving it open to legal challenge.

(h) There is no appropriate format or text which the Board could use when requesting further information.

Appeal by Wind Ireland Defence

(i) The appeal is based on information found to be factually correct. The legal cases cited are relevant and appropriate. The assertions are robust. Wind Aware Dromahair agrees with and supports the grounds of appeal.

Sligo County Council

The Board sought comments from Sligo County Council and the planning authority submitted that it had no comments to make.

Leitrim County Council

The Board requested a submission from Leitrim County Council in accordance with section 131 of the Planning and Development Act. A response was received on 21st September 2021. It was submitted that the Council liaised informally with Sligo County Council in consideration of aspects of the proposal and it was stated that the Council did not make a formal submission to Sligo County Council. It was further stated that a joint meeting of both planning authorities was held with NPWS and advisors to the applicant. Details of the meeting were attached with the submission. It was submitted that Leitrim County Council had regard to the potential impact on County Sligo.

7.0 Planning Assessment

7.1. Introduction

This part of my assessment will consider a number of the principal planning issues raised in the appeal submissions. My assessments under the headings of 'Environmental Impact Assessment' and 'Appropriate Assessment' will follow and will also seek to address some of the key environmental issues relating to the proposed development.

7.2. Grounds of Appeal by Wild Ireland Defence CLG

7.2.1. The grounds of the appeal that were submitted by this third party were as follows:

(j) The application does not comply with the requirements of the planning regulations.

(k) The EIAR is not compliant with the EIA Directive.

(l) The planning authority failed to carry out a proper Environmental Impact Assessment.

(m) The planning authority failed to carry out an Appropriate Assessment according to the caselaw of the CJEU.

(n) It is not possible for An Bord Pleanála, having carried out its legal functions *de novo* to grant permission for this development.

7.2.2. In my opinion, this appeal could reasonably be dismissed. The appellant has not in any manner submitted how the application does not comply with the requirements of the planning regulations, how the EIAR is not compliant with the EIA Directive, how the planning authority failed to carry out a proper Environmental Impact Assessment, and how the planning authority failed to carry out an Appropriate Assessment according to the caselaw of the CJEU. Furthermore, the appellant did not demonstrate how it is not possible for An Bord Pleanála to grant permission for this development, having carried out its legal functions *de novo*. The appellant makes five short claims without any foundation given for such claims. These are statements not grounds of appeal.

7.3. **First Party Appeal**

7.3.1. Having regard to the Derryadd judgement (2021, IEHC 390), the specific nature and extent of the proposed development necessitates clarification. The public notices with the applications refer to the construction of turbines "*… with a maximum overall blade tip height up to 170 metres*". The applicant has sought to address this issue by clarifying the proposed development that was subject to its various assessments. I also acknowledge the range of drawings reflecting the provision of turbines to a height of 170 metres. In the event of a consideration of a grant of planning permission, it would appear reasonable that a condition such as that proposed in the appeal could be attached or, alternatively, the Board could request further information to clarify further the nature and extent of the proposed development.

7.4. Need for the Proposed Development

7.4.1. The third party appellants have submitted that justification of a necessity for the wind farm has not been provided. The applicant submits that Section 1.5 and Chapter 2 of the EIAR addresses the justification for the proposal.

7.4.2. Section 1.5 of the applicant's EIAR sets out details on the need for the proposed development. This refers to the contribution to Ireland's 2030 renewable energy target and climate action commitments, energy security and reducing import dependency, meeting EU renewable energy targets, reducing carbon emissions and other greenhouse gases with benefits to air quality and human health, and the economic benefits derived from displacing fossil fuel imports, job creation, commercial rate payments, Community Benefit Schemes, etc. I further note that Chapter 2 addresses the compatibility of the proposal with international, national and regional renewable energy policy. Section 1.5 also refers to the recreational benefits arising from the infrastructure proposed in the form of providing an amenity area and recreational walks.

7.4.3. I submit to the Board that, setting aside consideration of the environmental impacts arising from the selected site itself, the principle of the development, i.e. the high-level need for renewable energy projects of the type proposed, is well-founded. The duties and responsibilities in meeting Ireland's commitments to reduce greenhouse gases through projects such as onshore wind farm development is accepted. The need for developments of the nature proposed to meet these commitments is, therefore, also accepted.

7.5. Compatibility with Renewable Energy Policy

7.5.1. I note that wind farm development in principle would be compatible with a wide range of international, EU, national, regional and local policies relating to the reduction in greenhouse gas emissions, the promotion of renewable energy, and the role of onshore wind development. This includes the following:

- The Kyoto Protocol, an international agreement to which Ireland is a party to, which seeks significant reductions in total greenhouse gas emissions to no more than 13% above 1990 levels;
- The Paris Agreement, which provides for a limitation of the global average temperature rise to well below 2 degrees Celsius above pre-industrial levels and to limit the increase to 1.5 degrees Celsius;
- The Renewable Energy Directive, which requires EU Member States to adopt a national renewable energy action plan (NREAP) and therein to set out national targets for the share of energy from renewable resources;
- The Climate Action and Low Carbon Development Act 2015, which provides for the establishment of a national framework with the aim of achieving a low carbon, climate resilient and environmentally sustainable economy by 2050;
- The National Mitigation Plan arising from the above Act, which aims to provide the statutory basis for the transition to a low carbon, climate resilient and environmentally sustainable economy;
- The provisions of the Climate Action Plan 2019 which sets out the actions over the coming years to address the impacts which climate may have on Irelands environment, society, economic and natural resources;
- The National Renewable Energy Action Plan, following on from the Renewable Energy Directive, which sets out the national targets for the share of energy from renewable resources to be consumed in transport, electricity, and heating and cooling;
- The National Planning Framework, which promotes renewable generation and generation at appropriate locations to meet national objectives towards achieving a low carbon economy by 2050 (National Policy Objective 55);
- The Regional Spatial and Economic Strategy for the Northern and Western Region, which recognises that the region has significant renewable energy resources through wind, with the Assembly supporting the development of a safe, secure and reliable electricity network and the transition towards a low

carbon economy centred on energy efficiency and the growth projects outlined and described in the strategy (RPO 8.1);

- Leitrim County Development Plan, which acknowledges the role of wind energy in reducing the reliance on non-renewable sources of energy, reducing the dependency on imported fuels and in moving towards a 'low carbon' society; and
- Sligo County Development Plan, which seeks to facilitate the sustainable production of energy from renewable sources, energy conversion and capture in forms such as wind power at appropriate locations.

7.5.2. It is reasonable to conclude from the provisions and objectives of the above that the development of a wind farm would be consistent with the aims of reducing greenhouse gas emissions, improving renewable energy production, and contributing to the aim of achieving a low carbon economy. While I acknowledge the third party submissions and the clear policy emerging on development of offshore wind farms, it remains the case that the development of onshore wind farms is considered to be an integral part of the delivery of renewable energy in the pursuit of decarbonisation of the electricity generation sector.

7.6. **Consideration of Alternatives**

7.6.1. I note the appellants submit that the consideration of reasonable alternatives fails to comply with the requirements of the EIA Directive, undermining an essential goal of the EIA process. Reference is made to the need to consider other renewable energy sources and to consider other potential onshore sites, as well as possible offshore wind farm sites. It is submitted that the applicant only considered lands in its ownership and excluded other potentially suitable lands. The applicant's consideration of access to the grid part of the site selection process was also countered by the submission that grid capacity constraints and problems exist. In response, the applicant made reference to the content of the EIAR on alternatives and countered that the principal characteristic of the project is that it is an onshore

wind farm and, therefore, offshore sites were not considered as reasonable alternatives. It was further submitted that the site was first identified from a strategic level screening process through the application of software, 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.

7.6.2. I first acknowledge that the applicant's consideration of alternatives included a 'Do Nothing' option, alternative locations, alternative technologies, alternative turbine layouts and development design, and alternative mitigation measures. It was an extensive examination of alternatives. The main reasons for selecting the chosen option as opposed to the range of alternatives were provided. It is a reasonable observation to make from the outset that land availability and suitability of that land must be regarded as a relevant contributor in considering, in a practical manner, a proposal and other projects which may reasonably be pursued as alternatives. It is, therefore, reasonable that the Coillte landbank was reviewed to determine alternative site locations. The reason for not selecting other suitable locations because they are due to be pursued as locations for wind farm developments is reasonable and justifiable. On the issue of the grid connection, the potential options to provide connectivity to the grid were given. This again is reasonable. Constraints with the grid are matters to be addressed elsewhere and are beyond the control of the applicant. Clearly, the project can only be viable if any such constraints are addressed. At this stage, the applicant can only reasonably demonstrate the ability to provide for the grid connection. Regarding the pursuit of offshore wind as an alternative, it is understood that the development of land-based renewable energy, including onshore wind farms, remains a key component of public policy in the pursuit of a low carbon economy and the aim to decarbonise the electricity generation sector. At a wider strategic level, of course such alternatives must be given due consideration. At a project-specific level, one must be practical and realistic in what can be given due consideration as a 'reasonable' alternative.

7.6.3. In conclusion, it is my submission to the Board that the applicant has provided a consideration of reasonable alternatives in the planning application. I cannot conclude that this application fails to comply with the requirements of the EIA Directive.

7.7. **The Management of Waste Materials**

7.7.1. It is estimated by the applicant that the quantity of peat requiring management on this site arising from the construction of the proposal would be 209,970m^3. The quantity of other spoil requiring management is estimated to be 196,860m^3. This gives a total of 406,830m^3. This is an enormous volume of material requiring handling, storage and management. The applicant is proposing to dispose of this material in the worked out borrow pit and in two repositories on a peat-dominated, upland area.

7.7.2. As rock is being extracted from the borrow pit, upstands of rock are proposed to be left in place, depending on the type of rock, to act as intermediate retaining buttresses. Where this is not achievable, stone buttresses are to be constructed within the borrow pit. In my opinion, it is extraordinary that the applicant does not know at this stage how a primary waste repository for this proposed development is intended to be finally constructed. Furthermore, it appears that the applicant is somewhat unsure about the type of rock intended to be extracted at this borrow pit location. One could not reasonably be assured that the handling, management and storage of this waste material will be carried out in a safe manner and will be sustainable for the lifetime of this wind farm at this upland location. I wish to impress upon the Board that this feature of the proposed development poses a serious pollution, health and safety risk.

7.7.3. In addition to the borrow pit, the spoil is to be put into two repository areas, one at the north-western end of the site and one at the south-eastern end. These are to be areas on the site that would be contained by constructed stone buttresses. The heights of the stone buttresses would be higher than the stored peat and spoil, with the buttress for the north-west repository being up to 7 metres in height, while the buttresses for the south-west repository would be up to 6 metres in height. These buttresses are intended to be constructed of well-graded granular rock fill of about 100mm up to 500mm in size. Alternatively, drains are proposed to be placed through the buttresses to allow excess water to drain. Interceptor drains are also intended to be provided upslope of the repositories and settlement ponds are proposed at the lower sides of these repositories. Based upon the details in this application, it is

apparent that the applicant remains unsure about how these repositories are intended be drained, which is a critically important design feature of this development that is intended to store huge volumes of material for the long-term. This is compounded by the applicant's lack of understanding of whether or not measures will be required for the control of groundwater (an issue which is intended to be determined as part of the ground investigation programme). It is also apparent from the design proposals that that the applicant is unsure about the type and condition of rock at these repository locations. In the event of the failure of providing for appropriate drainage of these repositories, it is apparent that the difficulties with containment and ponding of excess water would arise, that a build-up of pressure would be likely, and the potential failure of the repositories would be a realistic outcome. I am particularly concerned about proposed repository no. 2 and its siting on a hillside, the necessity of clear felling of forestry, and the peat-dominated nature of the soils at the repository locations.

7.7.4. It is evident that the applicant is going to extensive lengths to try to engineer the provision of repositories to contain a vast volume of spoil in upland where there is extensive blanket bog and where the applicant is evidently unsure about groundwater, rock and water conditions affecting this site. This poses a real pollution, health and safety risk. The vulnerability of this area to peat slides, as evidenced by an incident on the immediately adjoining Garvagh Glebe wind farm site at its construction stage, should not go unmissed when assessing the potential environmental threats posed by this proposed wind farm. In giving background to this event, I wish to draw the attention of the Board to Inland Fisheries Ireland's scoping response to the applicant set out in Appendix 2-1 of the EIAR. Therein, it was stated:

"*In September 2008, the Owengar River was severely polluted as a result of a catastrophic landslide caused by construction activities in association with wind farm and site road construction close to the Upper reaches of the Owengar River in Garvagh Glebe, Drumkeerin, Co. Leitrim. Water samples showed the impact of the pollution spread downstream through the Owengar River as far as Lough Allen over 9 kilometres downstream. The resulting pollution resulted in a fish kill of thousands of fish, mainly brown trout. The peaty material which was displaced into the*

watercourse led to the destruction of fisheries habitat on a massive scale. It will take many years for the impacted section of the river to recover.

IFI is seriously concerned over the potential for landslides in this area, based on the occurrence of two landslides in close proximity to this site during the construction and clear felling for the neighbouring Garvagh Glebe windfarm, which resulted in significant damage to the fisheries resource and water quality in the Owengar River. The Geological Survey of Ireland have also identified numerous landslides in this area, indicating significant risks from activities involved (sic) large scale earth works such as windfarms."

7.7.5. It is apparent from all of the applicant's submissions on the Garvagh Glebe significant pollution event arising from the construction of that wind farm that the applicant has been unable to adequately determine the reasons why that landslide occurred. The risk arising from the proposed development is evident.

7.7.6. Finally, the Board should also have regard to my considerations on drainage, and on soils, geology and water in the Environmental Impact Assessment section of my assessment. The stability of the proposed structures to contain the vast volumes of waste material arising from the proposed development is called into question in this instance. This is further exacerbated by the form and pattern of recent landslides in the immediate vicinity.

7.8. **Site Drainage**

7.8.1. Up to 9 new water crossings and 16 potential crossing upgrades are required as part of the proposed development. Where it is not possible to divert artificial drains around proposed works, the applicant proposes that drains would be blocked and this is proposed to take place after an alternative drainage system is put in place. If road widening or improvement works are necessary along existing roads (and this is very clearly the case as many existing internal roads are proposed to be significantly widened), where possible, the works are proposed to take place on the opposite side of the road to the drain.

7.8.2. The proposed drainage system for this development is intended to employ two methods as follows:

- The first method involves keeping clean water clean by avoiding disturbance to natural drainage features, minimising any works in or around artificial drainage features, and diverting clean surface water flow around excavations and construction areas.
- The second method involves collecting any drainage waters from works areas within the site that might carry silt or sediment to allow attenuation and settlement prior to controlled diffuse release.

7.8.3. This proposed drainage scheme is highly complex and, having examined the applicant's proposed drainage provisions, it is noted that the proposals include the following:

- Interceptor drains upgradient of work areas to collect surface water flow runoff and divert it to be redistributed over the ground surface as sheet flow. The material excavated to make these drains would be compacted on the downslope edge of the drain to form a diversion dike. The applicant estimates that areas in which works are carried out to construct roads, turbine bases or hardstands would have been built up with large grade hardcore and that this would retain sufficient void space to allow water to infiltrate the subsurface of the constructed areas. It is not anticipated that roadways or other infrastructure would intercept ground-conveyed surface water runoff such that it would result in scouring, overtopping or spill-over. Interceptor drains may have to be retained in certain locations to prevent roadways acting as conduits for water that might infiltrate the road sub-base. The velocity of flow in the interceptor would be controlled by check dams. Interceptor drains would be installed horizontally across slopes to run parallel with the natural contour line of a slope.
- Swales would be used to intercept and collect runoff from construction areas, developed along the downgradient perimeter of the construction areas. Swales would be similar in design to interceptor drains.

- Check dams, made up of straw bales or stone, would control the velocity of flow in interceptor drains and swales. Straw bales would be secured to the bottom of the drainage swales with stakes. Clean 4-6 inch stone would be built up on either side and over the straw bale to a maximum height of 600mm over the bottom of the interceptor drain. They would be installed at regular intervals to ensure the bottom elevation of the upper check dam is at the same level as the top elevation of the next downgradient check dam in the drain. The centre of the check dam is to be approximately 150mm lower than the edges to allow excess water to overtop the dam in flood conditions. If necessary, any excess sediment behind the dams would be removed.
- Level spreaders would be constructed at the end of each interceptor drain to convert concentrated flows in the drain into diffuse sheet flow on areas of vegetated ground. These would be located downgradient of proposed works areas. The discharge point is to be on level or only very gently sloping ground rather than a steep slope to prevent erosion. The slope in the channel leading into the spreader is to be less than or equal to 1%. The slope downgradient of the spreader onto which the water would dissipate is to have a grade less than 6%. If a grade of less than 6% is not available in the immediate area downgradient of a works area at the end of a diversion drain, a piped drain is to be used to transfer the water to a suitable location. The spreader is to be level across the top and bottom to prevent channelised flow leaving the spreader or ponding occurring behind the spreader.
- Piped stone drains would be used to convey surface water runoff from diversion drains downslope to flat areas where it would be reconverted to diffuse sheet flow. They would transfer water away from areas where slopes are too steep to use level spreaders. The entrance at the top of the pipe would be stabilised with sandbags if necessary. The bottom of the pipe would be placed on a slope with a grade of less than 1% for a length of 1.5 metres before outflowing onto a rock apron. The rock apron at the outlet would consist of 6-inch stone to a depth equal to the diameter of the pipe and a length six times the diameter of the pipe. The width of the rock apron would be three times the diameter of the pipe where the pipe opens onto the apron and would fan out to six times the diameter of the pipe over its length.

- Vegetation filters comprising existing vegetated areas are to be used to accept surface water runoff from upgradient areas. They would carry outflow from the level spreaders. They would not be used in isolation for waters with high silt loadings.
- Stilling ponds would be used to attenuate runoff from work areas and would handle runoff from roads and hardstanding areas during the operational phase. They would intercept runoff potentially laden with sediment. They would be excavated at each required location as two separate ponds in sequence, a primary pond and a secondary pond. The points at which water enters and exits the stilling ponds would be stabilised with rock aprons. The primary stilling pond is proposed to reduce the velocity of flow to less than 0.5 metres per second. The secondary stilling pond is proposed to reduce the velocity of flow to less than 0.3 metres per second, with water flowing out through a stone dam, partially wrapped in geo-textile membrane. Stilling ponds are to be sized to accommodate peak flow storm events. They would be dimensioned so that the length to width ratio would be greater than 2:1. Each pond would be a minimum of 1-1.5 metres in depth. Embankments forming the sloped sides of stilling ponds would be stabilised with vegetated turves. They would be located towards the end of swales, close to where water will be reconverted to diffuse sheet flow. Sediment will be cleaned out of the stilling pond when it exceeds 10% of pond capacity.
- A siltbuster is proposed to filter any water pumped out of excavation areas, if necessary, prior to discharge to stilling ponds or swales.
- Dewatering silt bags are proposed to remove any remaining silt in potentially silt-laden water collected from works areas. These would be used downgradient of stilling ponds at the end of drainage swale channels.
- Sedimats would be placed at the outlet of silt bags to provide further treatment of the outfall from the silt bag. They would be pegged or staked to the ground surface and would extend to the full width of the outfall.
- Culverts would be suitably sized for expected peak flows in watercourses. Some culverts would be installed to manage drainage waters from works areas, particularly where the waters would have to be taken from one side of

a roadway to the other for discharge. Culverts are proposed to be installed with a minimum internal gradient of 1%. Smaller culverts are proposed to have smooth internal surfaces. Depending on the management of water on the downslope of culverts, large stone may be used to interrupt the flow of water.

- Silt fences would be installed around existing watercourses in certain locations, particularly where works are proposed within the 50-metre buffer zone of a stream or the 100 metre buffer zone of a lake. They would be installed as single, double or a series of triple silt fences, depending on space availability and anticipated sediment loading. Up to three silt fences would be deployed in series.

7.8.4. As well as these drainage measures associated with the development of the wind farm infrastructure, there are further drainage proposals associated with forestry felling, the borrow pit, floating roads, and cable trenches. These are as follows:

- For forestry felling, these would include blocking existing drains, installation of temporary silt traps, provision of new collector drains and sediment traps to intercept water upgradient of felling areas excavated at a gradient of 0.3%-3% gradient. Mechanised operations are proposed to be suspended during and immediately after heavy rainfall. Felling of trees would be pointed directionally away from watercourses. Brash mats are to be aligned parallel to ground contours where possible. Straw bales and check dams are proposed to be placed downgradient of timber storage sites. It is proposed that branches, logs or debris would not be allowed to build up in aquatic zones.
- Surface water is proposed to be contained in the borrow pit area but it is proposed to control the level of the water by creating a single point outlet from the basin-like area to ensure water does not overtop the pit. Interceptor drains would be installed upgradient of the borrow pit before extraction. A mobile pump is proposed to be used at the construction phase to keep the pit free of standing water.
- For new floating roads, cross drains are proposed to be installed beneath the road construction corridor to maintain clean water drainage paths. Large

surface water drainage pipes would be extended each side of these roads below the level of the proposed road sub-base.

- For the cable trenches, excavated material is proposed to be stored on the upgradient side of a trench. Where runoff arising from rainfall occurs, material is proposed to be contained in the downgradient cable trench. Excess subsoil would be removed from the cable trench works areas and transported to the borrow pits or used for landscaping or reinstatement works. On steeper slopes, it is proposed that silt fences would be installed temporarily downgradient of the cable trench works area or on the downhill slope below where excavated material is proposed to be temporarily stored to control runoff.

7.8.5. I put it to the Board that this is a highly complex system of drainage, involving a very extensive range of drainage measures. This firmly indicates that this is a concerning site for a development of the nature proposed. This is particularly so in light of the history of peat slides in this area. I ask the Board to observe the very precise nature of so many of these measures, having due regard to the highly sensitive nature of the land on which these man-made, intrusive works are proposed to occur, i.e. a site which the applicant acknowledges is a peat-dominated environment. The Board will note that the dominant habitat on the site, conifer plantation, has been originally planted on peatland habitats. The destabilising impacts of these proposed engineered drainage works, together with clear felling, at such a sensitive upland location poses a serious environmental threat, in my opinion. There are definite concerns about the functionality of these provisions, particularly for any of those that may arise after a prolonged dry spell followed by the impact of heavy rainfall events. The ability to adequately manage and maintain drainage infrastructure during such events must be called into question and the lack of comprehensive details on the land and ground conditions of the extensive area over which these provisions would be applied is stark. The Board will note that the applicant intends to commence the construction works outside of the breeding season for birds, i.e. the period from April to July inclusive. In other words, the forestry felling, the intensive and large-scale construction activities, and associated drainage provisions would commence in the

autumn and winter period when the most significant threats arise from the works coinciding with the wettest rainfall periods in this upland, peat-dominated environment, where there is a history of peat slides on and in the immediate vicinity of the site.

7.8.6. Finally, in addition to the above, the Board should also have regard to my considerations on management of waste materials and soils, geology and water in the Environmental Impact Assessment section of my assessment.

7.9. **Shadow Flicker**

7.9.1. The casting of shadows by turbines and the rotation of blades can occur with wind farm development in certain defined circumstances. As a result, this can cause potential nuisance, in particular to residential properties in the vicinity. For this to occur the sun is required to be shining and to shine at a low angle, notably after dawn and before sunset. Along with this, a turbine is required to be between the sun and the affected property and there must be enough energy to make the turbine blades move. Where shadow flicker can potentially occur the Wind Energy Guidelines recommend that it should not exceed 30 hours per year or 30 minutes per day for dwellings within 500 metres. The Guidelines also note that, at distances greater than 10 rotor diameters from a turbine, the potential for shadow flicker is very low.

7.9.2. For the assessment of impact from shadow flicker, I note that turbines with a rotor diameter of 140m and a hub height of 100m are those that were modelled by the applicant. The applicant considered all dwellings within 1.4km in its assessment, which totalled 24 dwellings and these are shown in Figure 5.5 of the EIAR. The predicted shadow flicker estimated to occur is presented in Table 5-9 of the EIAR. This identified that 13 properties may experience daily shadow flicker in excess of the guideline threshold of 30 minutes per day. It was estimated that, when the regional sunshine average of 24% is taken into account, the total annual guideline limit of 30 hours is predicted as not being exceeded at any of the modelled

properties. I note that the applicant's assessment has also concluded that there would be no cumulative shadow flicker with other wind farms experienced at the 24 properties. Mitigation measures are proposed in Section 5.9.3.10 of the EIAR in the event of shadow flicker exceeding guideline threshold values of 30 minutes per day at residential receptor locations.

7.9.3. In considering this issue, I note that there are no occupied dwellings within 850 metres of any proposed wind turbines. I further note the findings of the applicant's modelling results for properties within 1.4km of the turbines. I am very much aware of the range of necessary conditions to be in place for shadow flicker to result. It is apparent that shadow flicker would not occur frequently in this area as appropriate weather conditions coinciding with direction of shadow would not likely converge for each day shadow flicker could potentially result. With due regard to these observations, the potential for the proposed development to have an adverse impact through shadow flicker is, therefore, considered to be highly unlikely. Notwithstanding this, in the event that any nuisance could potentially arise, I note that technology is available to prevent shadow flicker from affecting neighbouring properties. A simple and effective measure to address concerns is to turn off offending turbines during periods when they are most likely to potentially create shadow flicker. A turbine can be appropriately programmed for this to occur. Automatic controllers can be employed to stop those turbines which could give rise to shadow flicker for the hours in any year that the phenomenon could potentially occur. These can be incorporated into the controls of the turbines and can be programmed to continually monitor sunshine intensity and wind direction and can automatically take the turbines out of operation to prevent moving shadows affecting houses. With such mitigation available, I do not consider that shadow flicker could be considered to be a potentially significant issue impacting on the amenity of residents in the vicinity of this wind farm development.

7.10. **Noise Impact**

7.10.1. *Introduction*

I note the many third party submissions to the planning authority and the third party appeal that have raised concerns about the potential noise impact arising from the proposed development. The third party appeal submission in relation to noise has raised concerns about the health impacts from low frequency noise from turbines and the cumulative impacts with other wind farm development at this location. Reference is made to appellants experiencing considerable noise nuisance from nearby Garvagh Glebe Wind Farm and the concern that the proposed development would add to these impacts. I propose to address noise under a number of sub-headings as follows.

7.10.2. Noise Sources and the Existing Environment

When considering the issue of noise emissions, I must acknowledge both mechanical noise and aerodynamic noise. The former is derived from moving parts contained within the proposed turbines, such as from the gearbox or generator. I note that noise derived from this source may have tonal components and this may also be dependent on wind speed and the consequent rotation of the blades. I do not intend to focus on this noise type in this assessment as modern turbines generally provide for insulation that prevents the transmission of mechanical noise. It is aerodynamic noise that merits consideration as the likely potential noise source for the wider community.

I acknowledge that aerodynamic noise could be significant from large turbines. The aerodynamic noise derived from turbines increases with wind speed and rotational speed. As distance increases from a noise source the noise spectrum becomes more biased towards the low frequencies. This wind turbine noise fluctuates at a rate depending on the speed of rotation. This is referred to as ‘blade swish’. As distance from a turbine increases this effect generally reduces. I note that the response to wind turbine noise would be dependent on an array of factors and that individuals respond differently to similar noise. In this context, it is reasonable to conclude that different people have differing degrees of hearing sensitivity. What is of particular

relevance in determining the noise impact of the proposed development on the residents in the vicinity of the appeal site is that one can reasonably state that the residents in this remote area generally experience an environment where there are low background noise levels at present. I acknowledge that there are established wind farms in the area and that wind farm-related activities comprise a source that influences the noise environment in recent times. I must, however, note the further expansion of wind farm development north-westwards as proposed by this development in this location and the low background noise environment for residents in the vicinity at present. I also note that at night-time one would expect that significant regular noise sources, such as road traffic and farming and forestry-related activities which impact on the local area would be substantially reduced and low background noise would generally prevail as the extent of man-made noise sources decline. The impact at night-time from the proposed development by the swishing of blades from the large turbines proposed could potentially affect sleep patterns and could potentially generate stress where turbine noise is audible, particularly where windows may be left open in houses in the vicinity. The distinctive difference with blade swishing, when compared with other types of noise experienced within a rural environment, should be acknowledged as relevant in assessing noise impact. This type of noise could be perceived to change the character of the noise environment.

Wind turbine noise evidently can only occur when turbines are rotating. Noise levels are found to be greatest when the wind is blowing from the turbines in the direction of a sensitive receptor. I acknowledge that turbine noise may be masked by vegetation. I note the exposed, elevated nature of the site and the significant height of the proposed turbines. I also note the low density of housing in the vicinity and distance from urban settlements. Another important issue is the potential difference in wind speeds at the upper levels of a turbine of the height proposed and those experienced at ground level. With the tall structures proposed at this site it is perceivable that wind speed could be sufficient to rotate the proposed turbines while at lower levels the wind experience is not notable or is less detectable. The applicant's background noise assessment becomes an important feature to determine potential consequences in this scenario.

Finally, I am aware of the extensive public concerns relating to infrasound, amplitude modulation causing periodic thumping at low frequencies, and the negative health effects seen to arise from wind farm development on some people exposed to such development. There is extensive conflicting research on these issues. The assessment of this planning appeal clearly cannot provide the context for the making of decisions on public policy relating to such health matters. However, one cannot readily deflect from the public health impact if it is an issue that would arise in a particular project.

7.10.3. Wind Energy Guidelines

I note that the third party has referred to the legal status of the Wind Energy Guidelines in assessing the impact of the proposed development and has referenced their deficiencies and impending changes. The Guidelines have not been updated yet and, at present, I must determine that the prevailing guidance on noise is that set out in the current national Wind Energy Guidelines from 2006. I accept that the public concerns around noise is a particularly complex issue, with extensive conflicting research and a wide range of international guidance and standards. Evidently much can be learned from international best practice but the guidance to which the Board would ultimately be required to have due regard to at this time is set out in the Wind Energy Guidelines.

Section 5.6 of the Guidelines refers to ‘Noise’. The Guidelines acknowledge much of what has been referred to above in discussing noise in general. It is noted that good acoustical design and carefully considered siting of turbines is essential to ensure that there is no significant increase in ambient noise levels at nearby sensitive receptors. It is also noted that sound output from modern turbines can be regulated to mitigate problems. The Guidelines require that noise impact should be assessed by reference to the nature and character of noise sensitive locations. They require noise limits to be applied to external locations and that such limits should reflect the

variation in both turbine source noise and background noise with wind speed. The following is particularly noted:

"*In general, a lower fixed limit of 45 dB(A) or a maximum increase of 5 dB(A) above background noise at nearby noise sensitive locations is considered appropriate to provide protection to wind energy development neighbours. However, in very quiet areas, the use of a margin of 5 dB(A) above background noise at nearby noise sensitive properties is not necessary to offer a reasonable degree of protection and may unduly restrict wind energy developments which should be recognised as having wider national and global benefits. Instead, in low noise environments where background noise is less than 30 dB(A), it is recommended that the daytime level of the LA90, 10min of the wind energy development noise be limited to an absolute level within the range of 35-40 dB(A)*

Separate noise limits should apply for day-time and for night-time. During the night the protection of external amenity becomes less important and the emphasis should be on preventing sleep disturbance. A fixed limit of 43 dB(A) will protect sleep inside properties during the night.

In general, noise is unlikely to be a significant problem where the distance from the nearest turbine to any noise sensitive property is more than 500 metres."

A reasonable interpretation of the limits recommended above would be:

- A fixed limit of 43 dB(A) at a noise sensitive location for night-time hours,
- 45 dB(A) or up to 5 dB(A) above background noise, whichever is the greater, at a noise sensitive location for daytime hours, and
- 35-40 dB(A) at a noise sensitive location for daytime hours where background noise is less than 30 dB(A).

I note that noise conditions attached with a grant of planning permission for wind farm development in Ireland frequently reflect the above provisions.

I observe that none of the existing houses in the vicinity of the site are within 500 metres from any proposed turbine. I also observe that the scale and height of the proposed turbines are distinctly greater than those types of turbines that would have generally been prevalent at the time of the preparation of the Wind Energy Guidelines.

7.10.4. Operational Noise

I note the applicant's submission forming Chapter 11 of the EIAR and the supporting Appendices 11-1 to11-6. This submission noted that there are 78 noise sensitive locations (NSLs) within 2.2km of the proposed turbine locations, with the nearest being 850m from proposed Turbine 6. The applicant's assessment considered the construction, operational and decommissioning phases of the development. Background noise levels were measured at ten NSLs east, west and north of the site. The selection of NSLs appears to be based upon locations that fell outside of a predicted 35dB$_{LA90}$ noise contour being excluded for noise monitoring. The summary of the background noise data acquired indicates that these locations constitute a low noise environment at day and night times. Noise levels were calculated for the 78 NSLs. Cumulative predicted turbine noise levels were compared against adopted noise criteria curves at various wind speeds and the findings are set out in Table 11-21 of the EIAR. The findings indicate that the predicted noise levels for the various wind speeds would be within the noise criteria curves at all but two NSLs. In one instance there is a marginal exceedance of 0.2dB during the night-time at 8m/s, while it was found that the predicted noise levels generated would not result in an increase in noise levels experienced at the other NSL and would not cause an exceedance of the cumulative noise criteria. Noting that an exceedance of 0.3dB would arise for a house to the north of proposed Turbine 6, it is submitted that

turbine operation would be modified during the wind speed conditions and periods of the day and night identified in order to remove the predicted potential exceedance. The predicted operational noise effects from the turbines are predicted to be negative and moderate in significance.

I note the EIAR also assessed noise with regard to the operation of site roads and the proposed substation. I acknowledge the significant separation distances between the site and established NSLs and consider the use and operation of these infrastructural components would have no notable adverse noise impact on the wider community.

The applicant acknowledges in Section 11.5.5.1 of the EIAR the potential for low frequency noise and, as mitigation, it is recommended that an appropriate investigation be undertaken should this arise. Reference is made to guidance on conducting such an investigation but no reference is made to what should be done in the event that this is a problem. In Section 11.5.5.2 the applicant acknowledges the potential of amplitude modulation (AM) and it is proposed to employ an independent acoustic consultant to assess the level of AM in accordance with stated guidance should this arise. Once again, no reference is made to what would actually be done in the event there is a problem with amplitude modulation.

Overall on operational noise, I note the predicted limited noise impact arising for noise sensitive locations in the area where the proposed development is intended to be sited. There are predicted adverse noise impacts for one particular property and operational turbine modifications are intended to address that concern. It is accepted that there are substantial separation distances between proposed turbines and existing houses in the area. There evidently is a cumulative impact also resulting for a small number of properties and these are seen to be marginal in the context of noise exceedance criteria. I again acknowledge the low noise environment which houses in the general vicinity of this site experience and acknowledge those properties are substantial distances from existing turbines at present. I must acknowledge the occupiers of those properties who form part of the third party who have submitted that they are adversely affected by noise from an existing wind farm

beside the proposed wind farm. I understand why they would be concerned about more turbines in the vicinity of their homes and the cumulative noise impact that may arise to affect them. Finally and further to this, I consider that it is particularly difficult to draw any reasonable conclusion on residual noise impacts when the applicant acknowledges the potential for low frequency noise and amplitude modulation, while it proposes to investigate such adverse effects if they arise but does not clearly specify how it is going to mitigate such negative impacts. Therefore, there must be some degree of uncertainty with operational noise.

7.10.5. Construction Noise

I note the range of activities associated with the construction phase, including the development of a borrow pit, as well as the short-term nature of the construction period for the proposed development. While no national limits are set for construction noise, I am satisfied that the development would not be untypical of similar infrastructure projects and that the nuisance caused by construction activities related to the development would be short-term. Appropriate site management, guided by a Construction Environmental Management Plan and a Traffic Management Plan, would be pivotal in reducing nuisance and disturbance to the general public. Furthermore, construction periods could be controllable by way of attaching a condition with a grant of permission to limit days and times of construction, thus reducing potential adverse impact to residents nearby. Overall, construction noise impact would not be significant in my opinion.

7.10.6. Decommissioning Phase

I consider that it is reasonable to draw similar conclusions for the decommissioning phase as to those drawn for the construction phase. This impact would be short-term and would not be significant in my opinion.

7.11. **Landscape Character and Visual Impact**

7.11.1. Introduction

The physical extent of the visual influence of the turbines, their impact on the natural landscape character, the effects on tourism of the area, and the turbines' prominence from routes considered to be of scenic amenity value and amenity areas themselves represent the principal issues of landscape and visual concern.

7.11.2. Mitigation by Design

I note that the applicant in the early stages of its consideration on landscape and visual impact places an emphasis on 'Mitigation by Good Design' and refers to a schedule of landscape and visual design considerations that were given due regard (Section 12.2.1.1 of the EIAR). These include the turbine layout having been designed to create a coherent cluster, contiguous and connected to each other visually and with consistent spacing. I submit to the Board that this can reasonably be viewed as misleading at best. The layout by no means forms a coherent cluster of turbines. The number and placing of turbines at this site present as being primarily determined by the site constraints and not by any design-driven approach. I draw the attention of the Board to the constraints maps shown in the consideration of alternatives in the EIAR and to the required separation distances to residential properties, designated sites, waterbodies, sites of archaeological significance, telecommunications buffers, ESB lines and existing turbines adjoining the site. Mitigation by design is not a particularly relevant consideration in the instance of this proposed development and cannot be accepted as an approach that in some way led the design of this project. The number of turbines that could be accommodated on the site, when all constraints were taken into account, presents as more of a determining factor.

7.11.3. Landscape Character

I note the current Draft Leitrim County Development Plan 2023-2029 contains a *County Leitrim Landscape Character Assessment* which identifies Landscape Character Areas LCAs). No Landscape Character Assessment has been carried out

for County Sligo to date. The proposed turbines in County Leitrim fall within *LCA11 Corry Mountain*. The Assessment notes that panoramic views from elevated locations are available of the moorland plateaus, the surrounding lowlands and Lough Allen. Key characteristics are stated as follows:

- Extensive, mountainous uplands overlook Lough Allen from the west;
- Rough grazing on moorland hills and plateaus;
- Extensive areas of commercial forestry which dominate the moorland hills and lower slopes;
- A concentration of wind turbines on highest ridgelines;
- Sparsely populated;
- Impressive views from higher ground towards valley landscapes, Lough Allen and adjacent mountains;
- Moorland plateaus sense of isolation is eroded by the presence of many wind turbines;
- Field patterns on lower hill slopes fragmented by tracts of commercial forestry;
- Distinctive upland valleys sheltering small farming communities accessed by winding narrow roads; and
- Transitional woodland and scrub on steeper slopes.

Details submitted in the Assessment include:

- The most elevated areas of this landscape features rock outcrops present as mountain plateaus with blanket peat cover;
- Telecommunication masts and wind farms are conspicuous features in this mountainous area;
- The skyline of Corry Mountain, albeit featuring wind turbines, forms a distinctive backdrop to the lowland landscapes to the east and also the setting of the town of Drumkeeran;
- Landscape quality and condition is partially affected by the presence of wind turbines, in particular the upland areas where these and associated access tracks interrupt the otherwise remote and tranquil character of the mountain moorland plateaus;

- The upland plateaus are sensitive landscapes due to their visual exposure and intervisibility with the lowlands. Plantation coniferous forestry tends to be highly visible at higher elevations. Roads onto the moorland plateau tend to undermine the sense of isolation. Areas of heath and blanket bog are burned to encourage grass growth, which causes areas of peat to dry out and alters vegetation structure;
- Forces for change currently visible in the landscape include areas of search for wind turbines that have been identified within this LCA according to the Draft Leitrim Renewable Energy Strategy indicating potential for future development in the form of additional wind farms and single wind turbines.

I note the Wind Energy Guidelines considerations on landscape character. The Guidelines refer to six landscape character types to represent most situations as a basis for the Guidelines. They note that it is common that a wind energy development could be located in one landscape character type but would be visible from another. Importantly in the context of the proposed development, the Guidelines state that the entire visual unit should be taken into consideration. The site of the proposed development aligns mainly with the Guidelines' landscape character type 'Mountain moorland', notwithstanding it being extensively covered in commercial forestry. The key characteristics of this landscape character type are stated in the Guidelines to be:

- Peaked, ridged or rolling mountains and upland with steep sides or gently formed valleys;
- Generally unenclosed;
- Landcover comprising blanket bog, a mottling of heather, wild grasses and some rush in wet flushes; and
- A landscape type of relative remoteness and often comprising pristine, unspoilt and remote landscapes.

The site is positioned between Corry Mountain to the east and south-east and Carrane Hill to the west and south. The centre of the site sits on this saddle. Its northern section slopes down in a north / north-westerly direction. The saddle follows the Arigna River to the south-east. There are a number of watercourses traversing

the site, with a watershed in the centre. Lough Nacroagh is located near the centre of the site. The site is primarily covered by conifer plantation and there is extensive open moorland along the western side of the site. It comprises mountain terrain on which the turbines would be sited which is primarily unenclosed. Much of the landcover would naturally be blanket bog. There is extensive natural rock outcrop. It is understood that much of the character of the site has been distorted somewhat in recent times by commercial forestry. The area can be understood to be remote where the structures associated with the development are proposed to be constructed.

I again note that the Guidelines state that a wind energy development may be located in one landscape character type but may be visible from another and that, in such an instance, the entire visual unit should be taken into consideration. It is evident from the scale of the proposed development that its visibility extends over a very wide area that encapsulates a number of other Landscape Character Types, which include 'Hilly and flat farmland' and 'Transitional marginal land'. Having regard to this observation, one cannot readily determine that the appeal site falls neatly within the *Mountain Moorland* landscape character and then proceed to assess it in isolation. Thus, it may reasonably be determined that the impact of the proposed development on landscape character is particularly complex in this instance.

The current Leitrim County Development Plan states that development that can clearly demonstrate that it would not compromise the integrity of an environmentally sensitive area will be 'open for consideration'. Environmentally sensitive areas have been identified in the Plan. These include:-

- The Natura 2000 network
- Special Areas of Protection
- Natural Heritage Areas
- Proposed Natural Heritage Areas
- Areas of Outstanding Natural Beauty
- Areas of High Visually Amenity

- Outstanding Views and Prospects
- Areas of Archaeological Importance including those recorded on the list of Protected Monuments
- Areas of Geological Importance including those established under the Irish Geological Heritage (IGH) Programme.

I note that the part of the site that is within County Leitrim is not within any designated environmentally sensitive area. It does, however, abut a designated Area of High Visual Amenity in County Leitrim that lies to the south-east of the site and adjoins Corry Mountain Bog Natural Heritage Area to the south-east. Lough Gill Area of Outstanding Natural Beauty is also located to the north from which the proposed development would be highly visible. That part of the site within County Sligo is in close proximity to an area designated a 'Sensitive Rural Landscape' and a designated 'Visually Vulnerable Area' in the Sligo County Development Plan and the site immediately adjoins Carrane Hill Bog Natural Heritage Area which lies to the south of the site. Lough Gill to the north is designated a Sensitive Rural Landscape and is an area from which the proposed development would be highly visible. There are designated 'Scenic Routes' in the vicinity also. Designated views and prospects within the wider area include views in the direction of the site. These amenity areas and routes will be discussed later in the visual impact assessment. Based upon these observations, I consider that it is reasonable to determine that the site lies within an environmentally sensitive location and should be understood as such.

I observe that the area in the immediate vicinity to the south, east and south-east has been distinctly altered by the development of several wind farms. The proposed development seeks to expand this form of development in a north-westerly direction. The form and character of the proposed turbines would be distinctly greater in scale and height to those which exist at present in the vicinity. Its effect on landscape character would, therefore, produce a more significant impact due to the scale and consequent visibility of the proposed turbines and the geographical spread of turbines north-westward. It would further reduce the quality of the natural landscape character type over which it would have influence due to the physical prominence such structures would have and the clear structural, man-made impacts viewed over a wider area in proximity to more sensitive landscapes, notably to the west, north

and east. It is reasonable to determine that the scale and height of the proposed development are somewhat incomparable with other wind farm development in the vicinity and would produce structures of vastly greater visibility over an extensively greater geographical area. The other landscape character types proximate to this wind farm site would be greatly influenced by the proposed development, eroding amenity value and distorting sensitivity.

Finally, I note that the applicant's EIAR states that the greatest landscape effects would be experienced in the Corry Mountain LCA but maintains that extensive tree cover would greatly contribute to screening the proposed turbines from a large part of this LCA, thus mitigating the landscape effects. I submit to the Board that turbines to a height of 170 metres would simply not be greatly mitigated by any such tree cover in this area. It needs to be openly repeated that there would be a significant landscape impact arising from the height and scale of turbines proposed.

7.11.4. Visual Impact

Zone of Theoretical Visibility (ZTV)

As part of the applicant's assessment of visual impact of the proposed wind farm development, the generation of a Zone of Theoretical Visibility, with a radius of 20km centred on the appeal site, was undertaken. The ZTV represents the area over which the development would theoretically be seen within that 20km radius. It is apparent that the visibility of turbines would extend substantially beyond a 20km distance. The ZTV indicates broad areas where the visibility of the development is most likely to occur, how much is most likely to be visible, and the extent and pattern of visibility. It presents a 'bare ground' scenario, i.e. without screening structures or vegetation. I note that the applicant's ZTV shows the visibility of the proposed wind farm using the half blade height of the wind turbines as a point of reference and not the visibility of the hubs or blade tips of the turbines. The ZTV also indicates the number of turbines that would potentially be visible to half blade. Figure 12-6 and Appendix 12-4 of the EIAR show the half blade ZTV.

Before considering the ZTV undertaken by the applicant, it must first be noted that the proposed turbines would be very large, very high vertical structures and, as a result, they would be visible, recognisable and distinctive over a vast geographical area. They would be distinctly larger and higher than other turbines in the area. Wind turbines up to 170m high to blade tip placed on upland mountainous areas would have a very significant degree of visibility over a very wide geographical area in the context of this location. It is not a question of from where they are hidden or from where they would be screened. A development of this nature would have direct impacts on the interpretation of the natural landscape because of its form, scale and degree of visibility. These direct impacts cannot be graded readily by alluding to intermittency or piecemeal reading of impacts in a landscape of this nature as a result of vegetation in a defined location, a bend on a road, the location of a hill, or some other minor intrusion on visibility over a short distance. A development of this scale should, in my opinion, always be read with regard to a true sense of impact, which is in the context of a location. Accepting its visibility in its context, one may then determine whether this visibility in this location is acceptable or not. These large turbines would be seen. They would be prominent. They would come into views from near and far. They would impact on the setting of mountain and lowland. This is the reality of a development of this scale at this location.

Returning to the ZTV, it is unsurprising to note that the applicant's own modelling shows that the visibility of the turbines would be very expansive. The proposed development would have a distinctive visual influence from the north, west and east. Some clarity is required on the applicant's illustrations when referring to this. I note that Figure 12-6 of the EIAR shows the degree of visibility of the proposed turbines and the number of turbines that would be visible in different locations. Appendix 12-4 is at best very unclear and at worst unhelpful because it clearly distorts the understanding of the degree of visibility of turbines. The Board should note that Figure 12-6 (albeit a small illustration) is the accurate representation while Appendix12-4 is misleading with overlapping of landscape designations with theoretical visibility. This is unacceptable when this should be a key visual component of the applicant's submission on visual impact. Setting aside the confusion caused by Appendix 12-4, it is very clear that the proposed turbines would

be highly visible from several designated Areas of High Visual Amenity, Areas of Outstanding Natural Beauty, Scenic Routes, Scenic Views, and important tourist amenity areas.

In conclusion, I submit that the applicant's ZTV ably demonstrates the prominence of the proposed development at this upland location. This impact is reinforced by the height, scale, and number of turbines placed on elevated ridgelines and where often they would fail to retain mountainous backdrop and would frequently produce highly prominent development on the skyline. While again noting what the ZTV actually represents, i.e. a 'bare ground' scenario, one cannot but repeat that conifer plantation would do little to screen turbines of the height proposed.

Photomontages and Visibility from the Public Realm

I propose initially to offer considerations on the 18 photomontages presented as part of the applicant's EIAR which formed Volume 2 and the response to a further information request. From the outset, I wish to state that the representation of the likely visual impact arising from views selected by the applicant form a reasonable illustration of the visibility of the turbines when viewed from the specific points presented. These views have been confirmed. The views presented may reasonably be determined to be location-specific and it is evident that viewpoints could have been selected elsewhere to indicate a varying degree of visibility.

Photomontage 1

View 1 is taken from the summit of Bricklieve Mountain in Carrowkeel Megalithic Cemetery west of Lough Arrow and south-west of the nearest turbine. While a bright sky makes protrusions above the skyline very difficult to interpret in this montage, it is clear that there are many turbines from several wind farms visible to the south of the proposed development. This is a ridgeline of mountain and upland that has undergone extensive change and it is now dominated by turbines. Geevagh Wind Farm is distinctly prominent forward of the proposed development. The turbines particularly notable to the south appear to be associated with Altagowlan, Garvagh

and Derrysallagh wind farms. While the photomontage suggests there are many other turbines visible, it is apparent that the montage does not demonstrate such visibility. Notwithstanding the bright montage impacting on the degree of visibility of turbines, it is apparent that the scale and height of the proposed turbines make a distinct visual impression behind Geevagh Wind Farm. In many ways the turbines of Geevagh Wind Farm are dwarfed by the proposed development to the rear. This is a good representation of the difference of height and scale of the proposal when compared to nearby established development and this can be clearly interpreted from a view at a distance of 14.58km. It is evident that views from Carrowkeel would be drawn in the direction of the upland areas to the east. The panoramic view in this direction is already greatly distorted by the expanse of wind farm developments that have occurred along ridgelines in this view. The proposed development distinctly expands the intrusion northwards and the increased height and scale of the proposed turbines intensify the impact. The applicant's determination that the residual visual impact is 'Not Significant' is somewhat misplaced in my opinion. I must impress upon the Board the archaeological significance of Carrowkeel Passage Tombs, its distinct context, and the notable adverse impact the proposed development would have in greatly increasing the number and visibility of higher turbines from this highly sensitive location.

Photomontage 2

View 2 is taken from the N4 national primary road to the west of Lough Arrow (not east of Lough Arrow as stated in Volume 2 of the EIAR) on a section of road which is designated a Scenic Route in the Sligo County Development Plan. The view is taken more than 12km south-west of the nearest proposed turbine (not south-east as stated in Volume 2 of the EIAR). A bright sky once again makes protrusions above the skyline very difficult to interpret in this montage. Geevagh and Derrysallaggh Wind Farms are visible in this view and fortuitously a view of Carrane Hill Wind Farm, which is in between, is blocked by a tree in the foreground. The extent of wind farm development on the uplands is well understood when viewed from this location when a bright sky is not prevalent. Similar considerations on the height and scale of the proposed turbines compared to those in the Geevagh Wind Farm as expressed

in View 1 can reasonably be repeated for View 2, albeit that the view was taken from a lower lying area and the ridgeline reduces the extent of visibility of proposed turbines. The applicant's consideration on the residual visual impact of the proposed development on this view is that it is 'Imperceptible'. It is very clear that the proposed development can be well perceived in this view, with all turbines visible. It is the cumulative impact, the distinctly increased scale and height of turbines over those that exist, and the extension of wind farm development northwards along this upland ridge that visually impacts on users of the scenic route in this general area. The impact from this location could not reasonably be determined to be 'Imperceptible'.

Photomontage 3

View 3 is taken from the N4 over 14km west of the nearest proposed turbine (not east as stated in Volume 2 of the EIAR). Garvagh Glebe Wind Farm is visible to the rear of the site for the proposed development and Geevagh Wind Farm is visible forward of it, albeit that neither are highly prominent. The proposed development is significantly more prominent, exacerbated by the height and scale of the proposed turbines. This contributes to the drawing of the eye towards this location, which brings attention to the extent of wind farm development prevalent on the ridgeline. Notwithstanding the prominence of the proposed turbines and the effect of drawing attention to the upland by this prominence, the applicant has determined that the residual visual impact would again be 'Imperceptible'. Once again, I note for the Board that the impact is distinctly perceptible. To suggest that the high visibility of all of the proposed turbines has not significant consequences visually is simply incorrect.

Photomontage 4

View 4 is taken across a playing pitch from Radharc na gCaisleán housing estate in Collooney over 16km west of the nearest turbine (not east as stated in Volume 2 of the EIAR). The most striking impact arising from the proposed development is the significant extension northwards along the ridgeline in this view and the prominence of the proposed larger and higher turbines over that which are established south of

the site, namely Carrane Hill, Geevagh and Derrynasallagh Wind Farms. I note the commentary provided in Appendix 12-3 of the EIAR forming the applicant's viewpoint assessment. The residual visual impact is determined to be 'Not Significant'. The applicant has concluded that the proposed turbines do not expand the spatial extent of wind turbines from this location. The applicant is unequivocally incorrect. Notwithstanding the distance of over 16km, it is apparent that the proposed turbines distinctly expand the spatial extent of turbines across this ridgeline and their prominence is significantly greater than the established turbines to the south. Turbines of this scale and height are going to have a significant visual impact over large distances, such as in this instance.

Photomontage 5

This view is taken from a public viewing point off the R286 across Lough Gill Drive at a distance of almost 13km from the nearest proposed turbine. This is a highly scenic location and is a designated Sensitive Rural Landscape in the Sligo County Development Plan. The Regional Road is a designated Scenic Route. It is most striking that existing wind farm development does not intrude on the scenic views across the lake due to their distance and scale. The applicant's 'cumulative' photomontage however clearly demonstrates that the proposed development becomes a highly prominent feature in the view as the proposed wind farm development brings turbines in a northerly direction towards Lough Gill. The views across the lake would be significantly and adversely distorted by the proposed development. There can be no doubt that the eye would be drawn to the proposed turbines. Furthermore, the rotating blades will ensure the turbines remain a prominent part of this view, eroding the natural features enjoyed in the view. It is apparent that all turbines would be highly visible above the treeline on the opposite side of Lough Gill. Once again, the applicant has determined the residual visual impact to be 'Not Significant'. This conclusion cannot reasonably be accepted and, in my opinion, is categorically incorrect. The sensitivity of this amenity location and the visual impact arising is self-evident. The proposed development would have a distinct adverse landscape and visual impact on the natural amenity that is Lough Gill.

Photomontage 6

This view is taken from Parkes Castle, one of County Leitrim's significant tourism amenities, on the north-eastern edge of Lough Gill almost 13km from the nearest proposed turbine. This area is designated an Area of Outstanding Natural Beauty in Leitrim County Development Plan. The adjoining regional road is a designated Scenic Route. Similar to the previous montage, existing wind farm development does not intrude on the scenic views across the lake at this highly sensitive location due to their distance and scale. The reality of the effect of the proposed turbines in this view would be such that they would present as stark features in the view. This is a highly sensitive tourism and amenity location, in effect visually unaffected by wind farm development. Clearly the expansion of turbines northwards along the ridge draws the turbines more into view in this sensitive location. Furthermore, the increased scale and height of the turbines over those that exist would exacerbate the imposition on such sensitive locations. The applicant's consideration of impact is consistent in determining the residual visual impact to be 'Not Significant'. This is simply incorrect in my opinion. The natural character of this location would be greatly altered as wind turbines encroach on the approaches to the lake and on views across it. The proposed development clearly would have a significant adverse landscape and visual impact on the natural amenity that is Lough Gill.

Photomontage 7

This view is taken from the R288 in Dromahair approximately 8.25km north-west of the nearest proposed turbine. Carrane Wind Farm is in the view at a significant distance and is difficult to make out. The progression northwards along this ridge by wind farm development is demonstrated very well in this photomontage. Clearly the impact of turbines alters significantly in the view with the introduction of the proposed development. They would be the dominant features in the view and the rotating turbines will ensure that they remain so. The applicant has increased its determination of residual visual impact to 'Slight'. It has been determined that the sensitivities of this location would not be affected. It is my submission that the views

southwards out of Dromahair to the upland rural area would be significantly distorted by the proposed turbines. They would be conspicuous and prominent in the view.

Photomontage 8

This view is taken from designated Scenic View 15 on a local road to the north of Carrigeencor Lough approximately 10.6km north of the nearest proposed turbine. There are very vague views of Garvagh Glebe and Carrane Hill Wind Farms. Due to the substantial separation distance and their scale, they do not have any substantial impact on the protected view across and beyond the lake. The opposite can reasonably be said of the proposed development. Once again, it is evident that the proposed wind farm greatly expands the impact of development of turbines northwards along the ridge. The view across the lake is greatly distorted by the turbines as they form prominent features in the view. This is a sensitive location where it has been determined that the view merits protection. It is apparent that this view is to be protected for its natural scenic qualities. The photomontage ably demonstrates the intrusive impact the proposed turbines would have on the views of the natural landscape. This again is downplayed in the applicant's assessment where it has been determined that the residual visual impact would be 'Not Significant'.

Photomontage 9

This view is taken from McDermiott Terrace housing estate in Manorhamilton approximately 16km north-east of the nearest proposed turbine (not north-west as stated in Volume 2 of the EIAR). There are no discernible turbines from this view or forward of it where a view of a more expansive landscape is prevalent. The proposed turbines distinctly come into view at this location and would remain prominent features in this view. The view is an expansive view of the landscape and the turbines are sited at a significant distance, presenting as being placed in the saddle between two upland areas. This is not a particularly sensitive view in an urban location and the conclusion drawn that the residual visual impact would be 'Not Significant' is reasonable.

Photomontage 10

This view is taken from the R280 at Killarga approximately 7.5km north-east of the nearest proposed turbine. Carrane Hill Wind Farm forms a discernible but peripheral part of the existing view. As the proposed development progresses northwards along the ridge and with the increased scale and height of the proposed turbines, the impact of turbines on the view substantially increases. The cumulative impact of turbines is evident also. This is not a particularly sensitive location. However, it is reasonable to determine that there would be notable changes in the landscape arising from the proposed turbines.

Photomontage 11

This view is taken from the R280 in Drumkeeran just over 4.5km east of the proposed wind farm. The existing Garvagh Glebe Wind Farm is prominent in this view. Proposed turbine 9 is the visually prominent component of the proposed wind farm development in this view. While distinctly greater in height and scale than the existing turbines, it can reasonably be determined that its cumulative impact would not be visually significant.

Photomontage 12

This view is taken from Corry Strand on the northern shoreline of Lough Allen approximately 8.77km east of the nearest proposed turbine. This is a notable public amenity area with access to the shoreline, picnic facilities and parking. The existing view ably demonstrates the visual impact of wind farm development as it expands across the entire ridgeline. The cumulative impact of wind turbines on this ridge is evidently increased by the proposed development. I would suggest to the Board that this is a notable sensitive location where the natural landscape and views have been significantly distorted by wind farm development. One could come to a conclusion that this ridge has been so heavily affected by wind farm development that the addition of others would make no real difference. There is no question that wind farm

development has adversely affected the sensitivity of views across Lough Allen in this area and the proposed development would add to this. More wind farm development means more significant visual impact and more significant distortion of the natural landscape.

Photomontage 13

This view is taken from a local road in Ballinagleragh approximately 15km east of the nearest proposed turbine. It is from an elevated position and the view takes in Lough Allen. There are extensive numbers of existing turbines visible from the Garvagh Glebe Wind Farm. As has been evident in so many of the photomontages, the proposed wind farm extends the linear pattern of the turbines northwards along the ridge which exacerbates the cumulative impact that already exists in the view. The photomontage ably demonstrates how the development of turbines from north to south along this ridge has impacted greatly on the skyline. The difference in the scale and height of the proposed turbines over those which exist is clear, notwithstanding the distance to the site. The applicant has determined the residual visual impact would be 'Not Significant'. The proposed turbines would be perceived, discernible and otherwise noticed in this view and they would have clear visual consequences on their own, as well as increasing the cumulative visual impact.

Photomontage 14

This view is taken from the R208 to the north of Drumshanbo and some 16km south-east of the nearest proposed turbine. The prominence of existing turbines along either side of the ridge in the view is apparent. The proposed development presents as going some way to filling in a gap in the middle, distorting the clear break between the two groupings of turbines visible each side of the view. It very clearly increases the cumulative impact of turbines on the views towards these upland areas. The applicant has determined this view to be 'Imperceptible'. It is evident that the proposed turbines will be clearly visible in the view, with rotating blades increasing such visibility, and that the development would go some way in filling in the area between wind farm development either side of the view.

Photomontage 15

This view is taken from designated Scenic Route 66 in the Sligo County Development Plan at Ballynashee approximately 5km south-east of the nearest proposed turbine. The lines of existing turbines breaking the skyline are most prominent in the existing view. The proposed turbines would expand the linear format of wind farm development north-westwards. The distinctly greater height and scale of the proposed turbines over those which exist is evident. It is accepted that this is a Scenic Route where views at this location have been greatly altered by wind farm development. The proposed development continues to distort views of the natural landscape and form by continuing a linear presentation along the ridgeline and adding to the cumulative impact on views from the Scenic Route.

Photomontage 16

This is a view taken from a minor road at Beagh approximately 1.37km north-east of the nearest turbine (not north-west as stated in Volume 2 of the EIAR). A number of turbines is visible from the existing Garvagh Glebe Wind Farm. Given the proximity to the site and their height and scale, the proposed turbines would be highly prominent as expected. This is not a particularly sensitive location but it ably demonstrates the likely visual impact at a local level, notably for those residing at similar distances from the proposed development.

Photomontage 17

This view is taken from a minor local road in Tullynascreen approximately 1.67km north-west of the nearest proposed turbine. Topography and existing trees impact on the view. Similar comment to that on View 16 applies in this instance. The localised visual impact is apparent.

Photomontage 18

An additional photomontage was submitted to the planning authority by the applicant as part of further information. This view was taken from Cleighran Mór Marina on the east side of Lough Allen approximately 12.7km south-east of the nearest proposed turbine. This is a significant tourism and amenity facility. There are extensive numbers of turbines from several wind farms in this view. The view is from a low-lying area and the hills and hedgerows in the foreground greatly screen the existing and proposed turbines in the view. The linear progression of turbines along the ridge is clearly understood and the proposed development adds to this. With this, the proposed development evidently increases the cumulative impact. The proposed development is understood as adding to a very significant proliferation of wind turbines in this area.

Conclusions on Photomontages

I first note that the applicant has primarily focused on particularly distant views to the wind farm and that localised views are extremely limited in number. Notwithstanding the distances to the site from most of the views, a number of conclusions can reasonably be drawn. The applicant has consistently referred to residual visual impacts as being 'Not Significant' or 'Imperceptible'. It is apparent that such conclusions distort the reality of the visual impact arising from the proposed development. This proposed development would have a very distinct cumulative visual impact with other wind farm developments existing along the ridgelines of this area. This is an important issue in the context of the landscape and visual amenity impacts. It very clearly expands the visibility of turbines north-westwards along the ridge. The height and scale of the proposed turbines are significantly greater than those which exist at this location and, as a consequence, they are frequently more prominent and more visually intrusive on the natural form of the landscape. The impact on the skyline is as prevalent, and at times more often, as those turbines which exist on the ridgeline. The effects on particularly sensitive views across lakes (Lough Gill in particular), from important amenity and tourist facilities (Parkes Castle in particular), from the important archaeological site of Carrowkeel, and from scenic

routes and views are distinct and unquestionably undermine the quality of the natural landscape which forms their recognised sensitivity and amenity value. It is apparent that the proposed development would be highly visible from designated scenic routes and that the impact on these routes demonstrates the inability of the proposed development to integrate with the natural landscape character. One can reasonably conclude that the proposed development would have a visually detrimental impact on the quality of views from scenic routes and from designated scenic views. The impact of the proposed turbines would be substantial on their own but would also greatly add to the cumulative impact arising on the natural ridgelines.

7.11.5. Conclusions on Landscape and Visual Impact

I submit to the Board that there would be no doubt that the proposed development would have a significant landscape and visual impact, both locally and over greater distances from roads, scenic routes, archaeological sites, and tourism and amenity locations and it would intrude on protected views. The height and scale of the proposed turbines would ensure the development would be highly visible. This visibility cannot be considered to be 'Not Significant' or 'Imperceptible' as the applicant seeks to present. Such terminology is simply misplaced when one is talking about the height, scale and siting of the proposed turbines. The applicant's photomontages demonstrate how substantial the landscape and visual impacts would be. The prominence of a development of this scale emphasises the frequently exposed nature of the landscape and how there are expansive views throughout much of this area. The prominence and skyline nature of a development of this scale is obvious and should be openly acknowledged. The result of the impact of this development would be to change the understanding of the landscape in many instances, particularly for Lough Gill. There would be damage caused to the landscape and visual qualities of this area. Incongruity with the natural landscape should also be openly acknowledged and the interpretation should not be fudged by presenting 'mitigation factors' that simply do not mitigate and cannot mitigate a development of this scale. Finally, there must be an honesty in the considerations of the cumulative impact of the proposed turbines. Wind farm development at this location can reasonably be determined to be very extensive. This proposal

significantly adds to the extent of turbines on this ridge. Furthermore, this proposal expands the linear spread north-westwards in the direction of scenic, tourist and amenity locations that are clearly recognised as being of importance and value. The natural landscape is the principal tourism and amenity asset of these locations. This landscape has been greatly distorted by wind farm development to date and it is a fact that the proposed development would add further in a substantial manner to this. The proposed development does not have an inconsequential landscape or visual impact as one could interpret from the applicant's assessment. There is a need to curtail the erosion of the landscape quality in this area that is ongoing by wind farm development in the interests of sustainability in order to protect the context of the most valued landscape resources in this area.

7.12. **Ecological Impact**

I acknowledge the wide range of submissions made to the planning authorities and the Board on ecological impacts. My concerns relating to environmental impacts resulting from a landslide at this site and the consequent environmental damage (ultimately to the biodiversity of this area) have been set out previously. While acknowledging concerns raised about impacts on bats, other fauna, etc., I consider that the principal planning concerns on biodiversity, setting aside landslide impacts, relate to the ornithological impacts arising from the proposed development.

I acknowledge the provisions of Leitrim and Sligo County Development Plans, and in particular Policy 81 of the Leitrim County Development Plan which is to treat the uplands of North Leitrim located above the 160m contour as an ecologically-sensitive entity, where these uplands are not already designated as such.

I note the submissions to the planning authorities from the Department of Culture, Heritage and the Gaeltacht on nature conservation. The Department referred to the site's location relative to a number of European sites and Carrane Hill Bog NHA and Corry Mountain Bog NHA. The loss of upland blanket bog and wet flush and fen habitats were noted. Peat stability was a particular concern in both of the

Department's reports and has been addressed in other sections of this assessment. The Department raised concerns on the assessment of impacts on birds, and in particular on Hen Harrier, Whooper swan, Golden Plover and Curlew. The recording of Whooper swan within the site was acknowledged, being a species of note with respect to Lough Arrow SPA. It was noted that Golden Plover were recorded multiple times, mainly wintering on adjacent habitats but also possibly breeding within a kilometre of the site and concern about potential displacement from upland habitat was referenced. The significance of collision risk and mortality rate were alluded to. The recording of Curlew possibly breeding adjacent to the site was also noted. The Department further noted that the frequency of observations of Hen Harrier within and around the site during the breeding season months supported evidence of the presence of a possible breeding pair. The sensitivity of this bird species to wind farm development was acknowledged. Following the submission of further information by the applicant, the Department again noted the site is in an area where Annex I species were observed, namely Whooper swan, Hen Harrier and Golden Plover. The impacts of the effect of creating a barrier effect for Whooper swan with other wind farm development in the vicinity was referenced. A continuing decline in the breeding population of Golden Plover in Ireland was noted and the importance of sites in West Sligo and Leitrim for Golden Plover was noted. While acknowledging the site itself is not suitable for breeding Golden Plover, it was submitted that breeding pairs outside of the site may be impacted. Acknowledging that the applicant's surveys show that wintering Golden Plover fly through the site frequently, it is submitted that the predicted loss of 22 birds per year (660 mortalities during the lifetime of the proposed wind farm) may have a significant impact on wintering and breeding Golden Plover populations locally. The Department remains concerned about the impact on Hen Harrier also, noting that there is suitable habitat in pockets within the plantation at this location and surrounding the site of importance to Hen Harrier. I acknowledge the monitoring requirements set out at the end of the Department's second report.

I first observe the location of the proposed development, i.e. it is sited on the slopes of Carrane Hill, which continues to Kilronan Mountain to the south-east, and it adjoins Corrie Mountain to the east. The principal waterbodies include Lough Allen to the east, Lough Arrow to the west and Lough Gill to the north. The site is in a

remote, upland area, comprising a peat-dominant habitat. This is an area under significant development pressure from wind farm development as evidenced by the extent of turbines sited immediately south, south-east and west of the proposed development. It is clear from the applicant's surveys and from the observations of the Department of Culture, Heritage and the Gaeltacht that this is a location of significant nature conservation value, particularly for Annex I bird species. In my opinion, there can be no doubt that the continued expansion of wind farm development in this area adversely effects the existence of these species of conservation value at this location. The development of larger and higher turbines on the proposed site, together with the cumulative effect, clearly will increase the displacement of Annex I species in this area, it will affect breeding birds, it will increase the barrier effect with other wind farm development, and it will also have significant impacts by way of collision and mortality. In my opinion, the continued 'squeezing out' of Annex I species from this area due to the ongoing expansion of wind farm development must be regarded as unsustainable as it erodes the distinct nature conservation value of this location and its role in supporting the key biodiversity traits of the area. Monitoring of further turbine development in this upland location will not respond to or address the loss of suitable habitat or disturbance, displacement and mortality of Annex I species arising from this proposed development. While it may easily be determined that the site of the proposed development is not a designated site of conservation itself, that it is an area already subjected to extensive wind farm development and that more of the same (or even greater in scale and height) will not make much more of a difference, the reality is that this location is important for Annex I bird species. It is an area that is attempting to retain birds of conservation value, notwithstanding it being under significant pressure from wind farm development. I seriously question the sustainability of allowing further wind farm development at this location. I pose the question: when does the time come to put a halt to the cumulative impact of wind farm development because of its impact on Annex I bird species? I submit that all the applicant's bird surveys indicate that more wind farm development at this location is unsustainable.

In conclusion, I cannot determine that the continued development of wind turbines at this location would in any manner be consistent with Leitrim County Council's policy of treating these uplands as an ecologically-sensitive entity.

7.13. Grid Connection

It is my submission to the Board that the intended connection of the proposed wind farm to the existing Garvagh 110kV substation appears to be a rational objective. The proposal to underground cable via internal access roads and the local road again appears a reasonable provision in principle. However, I must acknowledge that, being an integral part of the overall infrastructure associated with the proposed wind farm, it is not possible to separate undergrounding of cables within the site from the significant potential adverse impacts that may result from a landslide associated with the construction of the proposed development. The accommodation of undergrounding of cables throughout the site and their location under internal access roads requires to be understood in the context of the need for (and provisions being made for) new internal roads and extensive widening of existing roads in this peat-dominated holding.

7.14. Traffic Impact

7.14.1. The applicant's EIAR assessed the effects of the proposed development at the construction, operational and decommissioning phases on roads and traffic. I note that, at the operational stage, the development would be unmanned and would be monitored remotely. Traffic volumes at that stage would be minimal, relating principally to maintenance. Access to the proposed amenity car park would be from local road L-8282 from the north and this road would not require any upgrade to accommodate the anticipated low volume of amenity-related traffic at the operational stage. For the construction phase, there would be substantial increases in traffic volumes arising from the delivery of concrete, site preparation and ground works, delivery of large equipment, and worker traffic. General construction access to the

site would be via local road L-4282 from the south. Route assessment and junction adequacy for accommodating the movement of abnormal sized loads were examined and autotracks were completed. The route to the site for wind turbine deliveries would be via the N4 to the south, Regional Road No. R280 and local road L-4282 and a short section of new access road close to Drumkeeran. A range of mitigation measures are proposed. Large turbine components would be transported at night, specific traffic management measures would be employed, an on-site borrow pit would be developed, and the development would be subject to a Construction Environmental Management Plan (CEMP) and a Traffic Management Plan.

7.14.2. It is my submission to the Board that the proposed transportation of abnormal loads associated with turbine delivery would have potential effects on the existing local road network, requiring short sections of road widening, hedgerow works, etc. However, I am satisfied that the applicant has comprehensively assessed the proposed route, has identified where the potential impacts would likely result, and has drawn up a range of mitigation measures to reduce the significance of the potential impacts. With the implementation of such mitigation measures, I do not envisage there would be any substantial long-term adverse impact for the road network affected. I acknowledge that there would be some short-term inconvenience to local road users during deliveries and general vehicular movements. I note that the national and regional roads affected are regularly used by HGV type traffic. A security or special contribution relating to protecting the road network affected by the turbine delivery routing could be applied to address any adverse physical impact on roads or bridge structures in the immediate term after any such impact. I consider that traffic management within settlements could likely facilitate delivery in an efficient manner to minimise local inconvenience. I particularly acknowledge the temporary provisions being made within Drumkeeran to improve access to the local road leading to the site. I do not accept that the delivery of abnormal loads would in general result in any significant environmental damage to established hedgerows, tree lines, etc. While the 12-18 months construction period would result in substantial volumes of general construction-related traffic to and from the site (much of which would be larger vehicles), I consider this is not likely to result in any capacity issues for the regional and national routes affected. This traffic would evidently have

potential structural effects on the local road serving as the principal entry point to the site, as well as being a potential obstruction and nuisance to farmers, residents, and other using this road. This would be a short-term impact and any structural defects could be addressed by the requirement for a financial contribution to the planning authority by way of condition to rectify such impacts.

8.0 Environmental Impact Assessment

8.1. Introduction

8.1.1. This application falls under Directive 2014/52/EU on the assessment of the effects of certain public and private projects on the environment (i.e. the 2014 EIA Directive). I have examined the information presented by the applicant, including the EIAR, and the submissions made during the course of the appeal. I have considered whether the information contained in the EIAR and the supplementary information provided by the applicant to date in the application process adequately identifies and describes the direct and indirect effects of the proposed development on the environment and complies with relevant legislative provisions.

8.1.2. Third party submissions have been received and many of the issues raised are addressed in detail in my planning assessment.

8.1.3. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality to allow consideration as to whether the information contained in the EIAR and any supplementary information provided by the applicant adequately identifies and describes the direct, indirect and cumulative effects of the proposed development and complies with article 94 of the Planning and Development Regulations 2000, as amended.

8.2. **Alternatives**

8.2.1. The applicant provided details on the site selection criteria and examined a 'Do Nothing' alternative, alternative locations, alternative layouts and designs, and alternative mitigation measures.

8.2.2. The Board will note my earlier considerations on this issue in my planning assessment. I am satisfied that an extensive examination of alternatives was reviewed in this application and that the applicant's assessment and reasons for the selection of the site for a wind farm development are reasonable.

8.3. **Population and Human Health**

The applicant examined population, human health, employment and economic activity, land use, residential amenity, community facilities and services, tourism, property values, shadow flicker, noise, and health and safety. I note that extensive consideration was given over to reports on public opinion on wind farms and on research into the impacts on human health from wind turbines. I have examined the issues relating to shadow flicker, noise, health and safety, pollution, and tourism in my main planning assessment and do not propose to repeat in detail my considerations on these issues.

My general considerations otherwise are as follows:

- The site of the proposed development is located in a remote, rural, upland area. Residential development is sparse in the immediate vicinity of the site. There are 5 dwellings within one kilometre of the proposed turbines, of which only one is occupied and this is located approximately 850 metres north of its nearest proposed turbine.
- The site is separate from established urban settlements in this area, with Drumkeeran located approximately 5km to the east and Dromahair being approximately 7.5km to the north-west. These settlements are the nearest providing community and social services, amenities and access to public transport.

- The principal land use within the main body of the site is commercial forestry. The principal land use surrounding the forestry is farmland. The forestry land use for the site will remain.
- Tourism amenities in the vicinity of this site include those which provide opportunities for walking, cycling and scenic drives. The Miner's Way, Sligo Way and the North-West Cycle Trail are principal amenities in this area. Lough Gill and Parkes Castle to the north, Lough Allen to the east and Carrowkeel Passage Tombs to the west are key tourist visitor locations in the vicinity. The proposed development seeks to enhance the provision of such amenities by adding marked trails and a boardwalk within the site. I acknowledge that tourism would form a notable contributor to the local economy
- The applicant's EIAR placed a substantial emphasis on tourism reports and surveys from Ireland and Scotland in support of its considerations that there would not be a significant impact on tourism. It is reasonable to determine that the Irish surveys, both Fáilte Ireland and Sustainable Energy Ireland, are at best dated and could not reasonably be relied upon due to their outdated nature and the reality must be acknowledged that the scale of wind turbines (such as those proposed) have greatly altered since the undertaking of these supporting surveys.
- The construction phase of the proposed development is not likely to have significant adverse impacts on the amenity of residents or the functioning of farms in the area. This stage would be subject to well-defined management and work practices, including delivery timing, working hours restrictions, traffic management, dust and noise controls, etc., and this stage of the development would have temporary, short-term impacts in terms of any disturbance or nuisance arising.
- I note the distinct separation distances between the proposed wind farm and residential properties and settlements. I also acknowledge that the site is an area in which there are substantial numbers of existing turbines. Clearly, the encroachment of very high turbine structures and their potential noise and

shadow flicker impacts on the closest established residential properties could not reasonably be seen as a development which would enhance residential property values, whilst it may prove particularly difficult to definitively place a monetary value on adverse impact. I consider that it is reasonable to determine that the value of a property in close proximity to a site for turbines would likely differ before their existence and after, depending upon the separation distances and the potential for nuisance effects.

- Health and safety concerns for workers should not arise at the construction phase when appropriate site controls and appropriate work practices are put in place. However, there is a distinct concern relating to landslides arising from the construction of the proposed development. Health and safety concerns relating to impact on bogland and the threats to the wider community and the environment are clearly set out in this assessment.
- The proposed development would provide up to 100 jobs during the construction, operation and maintenance of the proposed development, with the jobs relating to maintenance and control being two or three jobs and the majority being at the construction stage. The EIAR states that a maximum of 80 staff would be employed at the site at the construction stage at any one time during the site preparation and groundworks stage. The construction phase would last for between 12 and 18 months. I note that some of the materials used would be sourced locally.
- At the operational phase, the applicant proposes a wide range of mitigation, including measures relating to maintenance of the development, shadow flicker, and interference with communication systems.

It is reasonable to determine that the principal environmental impacts applicable to population and human health are those relating to shadow flicker, noise, health and safety, pollution, traffic, and tourism. These have been assessed earlier in this report.

8.4. **Biodiversity**

Chapter 6 of the applicant's EIAR considered the impact of the proposed development on biodiversity, flora and fauna. Chapter 7 considered impacts on avian receptors. The EIAR addressed the baseline ecological conditions and receptor evaluation, an assessment of the effects at the different stages of the development, proposed mitigation, and an assessment of residual effects.

My considerations on biodiversity, flora and fauna are as follows:

- The site is not on, in or in immediate proximity to any European site. I refer the Board to the section of my assessment on Appropriate Assessment.
- Corry Mountain Bog NHA (002321), whose Qualifying Interest is peatland, adjoins the site to the south-east. The applicant seeks to mitigate impacts at the construction and operational stages by appropriate design and hydrology-related mitigation measures. My considerations on site drainage and spoil management are acknowledged.
- Carrane Hill Bog NHA (002415), whose Qualifying Interest is peatland, is under 300m south-west of the site. There is no known direct or indirect hydrological connectivity between the site and this NHA.
- Owengar Wood pNHA (001419) is to the east of the main body of the site and adjoins the proposed access route.
- A total of fourteen habitats were recorded within the site. Upper blanket bog was recorded at the site's north-western section within which Turbine 1 and part of its associated site road are proposed and close to the location for Turbine 3, and in the centre of the site just north of the location for proposed Turbine 7. The former has been assessed as corresponding to the habitat listed in Annex I of the Habitats Directive. The dystrophic lake, Lough Nacroagh, is located close to the centre of the site. The dominant habitat on the site is conifer plantation. This plantation was originally planted on peatland habitats. Transition mire and quaking bog was recorded with Poor fen and flush at the north-western end of the site and along the southern shore of Lough Nacroagh.

- No botanical species listed under the Flora (Protection) Order, the EU Habitats Directive or in the Irish Red Data books were recorded on the site.
- Japanese Knotweed was recorded at two locations, east of the location for proposed Turbine 2 and close to farm buildings to the east of the site.
- Fauna-related findings recorded in site surveys included a main badger sett and an outlier sett within and adjacent to the study area, bat activity (with Leisler's bat recorded most frequently), common frog and Irish hare.
- At the construction stage, the following is submitted:
    - The proposed development would include the crossing of waterbodies within the site. There is potential for construction activity runoff of silt, nutrients and other pollutants into these watercourses. The Board will note my earlier considerations under the headings 'Management of Waste Materials' and 'Site Drainage' and the applicant's proposed drainage management plan.
    - The applicant refers to the proposed development resulting in the loss of 0.91 hectares of upland blanket bog. The Board will again note my considerations on the potential for significant effects arising from the construction works and the handling and management of spoil.
    - The potential drainage effects have potential significant effects for aquatic species in the waterbodies on and in the vicinity of the site.
    - Disturbance is likely to arise for badger. Mitigation measures are proposed, including avoidance of the setts.
    - Mitigation measures, in the form of best practice, are proposed to control the spread of Japanese Knotweed.
- At the operational stage, the following is submitted:
    - I note the applicant has concluded that there is no potential for significant effects on waterbodies at the operational phase following the implementation of mitigation measures. I again draw the attention of the Board to my earlier considerations on site drainage and management of spoil. I remain firmly of the view that there is significant potential for peat slippage and a consequent adverse impact on

waterbodies at this location and beyond the site, with adverse impacts resulting for aquatic species.

- The applicant places great emphasis on its Biodiversity Management Plan, with the proposal to replace lost upland blanket bog habitat with replacement bog within the site. I put it to the Board that the loss of such bog is not habitat that can be readily replaced as appears suggested.
- A review of bat roosts for the area by the applicant did not identify any roosts within or adjacent to the proposed development site. A range of mitigation measures are proposed and are set out in Appendix 6-2 of the EIAR.

My considerations on ornithology are as follows:

- The applicant undertook an extensive range of field surveys, as set out in Section 7.2.4 of the EIAR.
- I note the field survey findings set out in Section 7.6. The bird species recorded within the zone of influence of the proposed development included Annex I species Whooper Swan, Golden Plover, Hen Harrier, Merlin, and Peregrine and Red listed species Red Grouse, Woodcock, and Curlew, and Amber listed Snipe. Raptors referenced in Schedule IV of the Wildlife Act that were recorded included Buzzard, Sparrowhawk, and Kestrel.
- Whooper Swan, Golden Plover, and Hen Harrier were observed within and/or flying over the site. Merlin was observed hunting over bog within the site.
- Red Grouse were noted to hold a breeding territory within 500m west of the site and birds were flushed from bog between 200m and 500m of the site. Woodcock was observed within the site near Lough Nacroagh and beyond the site. A possible breeding territory for Curlew was observed west of the site.
- Buzzard, Sparrowhawk, Kestrel and Snipe were observed within and in proximity to the site.

- I draw the attention of the Board to Appendix 7-4 of the EIAR. The activity over, on and in the immediate vicinity of the site by birds of conservation value is evident.
- Habitat loss, displacement and collision risk arising from a development of this scale, height and location pose concerns for many of these bird species.
- The cumulative impact of wind farm development in this area must be substantially eroding the quality of the environment for sensitive bird species of conservation value by distorting migratory routes, eroding habitat, encroaching on foraging areas, affecting roosting and breeding sites, etc. The proposed development would add to this impact. The species of conservation value identified in the applicant's surveys are being squeezed out of this area as habitats are displaced and distorted by increasing wind farm development.

I submit to the Board that the range of birds of conservation value observed by the applicant on, over and in close proximity to the site in its surveys indicates this is an area of significant ornithological value. This area is under significant pressure from existing wind farm development. The EIAR notes that there are 13 existing wind farms less than 8km from the site, providing a total of 107 turbines, several of which adjoin the site. The potential for further habitat loss, displacement, and collision risk by yet more turbines in this area is apparent from the proposed development. The Board will also note that the proposed turbines are significantly higher and larger than the average turbines existing at present at this location, posing a notably greater risk of collision and avian displacement. The cumulative impact would be significant in my opinion.

8.5. **Lands, Soils and Geology**

The applicant's EIAR addressed a baseline assessment, site surveying, baseline monitoring and site investigations, including geotechnical ground investigations and a peat stability assessment (Appendix 8-1 of EIAR).

I note the following:

- Blanket peat is the dominant soil type at the site, covering more than 80% of the site.
- Peat depths at turbine locations varied from 0.3m to 4.5m, with an average depth of 2.0m.
- Peat depths along existing and proposed access roads are typically less than 3m, with localised depths up to 5m.
- Bedrock at the borrow pit was met at 2.2m.
- There are numerous mapped faults in the area. Two north-east / south-west trending faults have been mapped within the site.
- The applicant's peat stability assessment concluded that the site at the infrastructure locations has an acceptable margin of safety and is suitable for the proposed development. Analysis of 324 locations showed the site generally has an acceptable margin of safety. For both the drained and undrained condition, 324 locations showed an acceptable Factor of Safety of greater than 1.3 except for 8 no. marginally low Factors of Safety. These were typically located alongside existing access roads. Two were also located along the proposed access road to Turbine 9, coinciding with a deep pocket of peat.
- The estimated volume of peat to be extracted is 209,970m^3. The turbines and access roads would require excavation of 169,425m^3 of peat. The estimated volume of other spoil to be excavated is 196,860m^3. This gives a total of 406,830m^3.
- The volume of rock to be excavated from the borrow pit is estimated to be 372,600m^3.
- The volume of waste materials to be stored in the borrow pit and two repositories is estimated to be 398,000m^3.
- The applicant submits that there will be no loss of peat or subsoil, it will just be relocated within the site (Section 8.5.2.1 of EIAR).

The main factors that influence peat stability are slope angle, shear strength of peat, depth of peat, pore water pressure, and loading conditions. I note the huge volumes of peat and other materials proposed to be excavated for this development and

proposed to be moved and deposited in the borrow pit and the two repositories. I note the significant depths of peat at some turbine locations and along sections of proposed new access roads. I note the marginally low Factors of Safety alongside existing and proposed access roads, particularly along the proposed access road to Turbine 9, where some of the deepest areas of peat prevail. I note the low permeability of the limestone bedrock at this location, leading to a high water table. I note that there are 55.1 hectares of trees proposed to be felled to accommodate the new development, with this plantation growing predominantly on peat and these soils and subsoils being subsequently exposed. I note numerous mapped faults in the area, including two within the site. I note the upland nature of the terrain and the high rainfall levels to be expected in this location. I note that there is a high density of drainage channels throughout this site, both natural and man-made.

I must impress the Board that this is a major intrusive industrial project on this upland bogland location. The volumes of material proposed to be excavated, and peat in particular, on this upland are vast. The instability associated with the works and movement of waste material and the methodology of attempting to transport such volumes of peat (being primarily water), together with the dumping of the waste peat and other materials in three large holes on this site on a hill in bogland terrain poses a serious threat to health, safety and the environment. The interference with the natural terrain by the development of the turbine bases, the hardstanding areas, the construction of access roads cutting across the contours on bogland and providing preferential flow paths for surface waters, and the development of other infrastructure is incomparable in terms of intrusion with any commercial forestry plantation heretofore. I further note that this is an area where there have been previous peat slides and where, in the immediate vicinity of this site, there has been a landslide from the construction of another wind farm development. The landslide at the Garvagh Glebe wind farm site has already been noted previously. The Board will also note from the applicant's Geotechnical & Peat Stability Assessment Report, forming Appendix 8-1 of the EIAR, that there has been a high density of historical landslides in this area and that there have been three historical landslides within the site itself. I note again the landslide at the construction stage of the Garvagh Glebe wind farm and I acknowledge that there has since been a further landslide in this area in June 2020 in the vicinity of the Dawn of Hope Bridge to the north-east of the

site and north of Lough Allen on a low slope and after a period of heavy rainfall. The applicant's report highlights the evident susceptibility of the proposed site to landslides and indicates extensive parts of this site which are at significant risk at the construction stage in the immediate vicinity of several turbines and access roads.

I impress upon the Board that this site is classified by Geological Survey Ireland as being of low to moderately high landslide susceptibility. In my opinion, the risk of significant environmental damage arising from peat slides is too great on this site. This is not something that can be readily engineered after proposing to marginally avoid areas of significant risk. There must be serious concerns about peat erosion, peat instability, localised movement of peat, and ultimately peat failure on this site with a development of this nature, particularly from clear felling followed by the construction of the turbine bases and the development of the access road network traversing the contours of this upland site. At times of heavy rainfall, preceded by a prolonged dry spell, when water is channelling down through this site, when felling is underway and excavation is occurring through the peatland, the proposed strict adherence to management plans and drainage control measures can, and will be, seriously challenged on this site. The proposed development is most likely, in my opinion, to pose a significant adverse environmental impact arising from peat failure and ultimately a landslide. The Board will note from the applicant's EIAR the concerns from Inland Fisheries Ireland, Geological Survey of Ireland, and Irish Peatland Conservation Council (IPCC) in the scoping responses received by the applicant on soils and geology and water. I have referenced IFI concerns previously in my planning assessment. IPCC could not support the development due to little intact bog being left in County Leitrim, its location within a vast area of protected reserves, loss of habitat, and the high chance of landslides. I further note the landslide susceptibility mapping from GSI which indicates clearly susceptibility within this site.

8.6. **Water**

A key feature of note with the development of the proposed wind farm relates to the impact on peat, which itself is primarily made up of water. This issue has been addressed under soils and geology above and has also been considered earlier in

my planning assessment. The issue of site drainage has also been considered in my planning assessment. Both of these issues are of significant environmental concern. Further to this, the Board will note my considerations on appropriate assessment and the likely effects on European sites arising from the proposed development. This part of my assessment will focus on ground and surface waters.

The applicant's EIAR described the existing water environment, identified likely effects on ground and surface waters and mitigation measures, and considered residual and cumulative effects.

My observations on water are as follows:

- In terms of regional hydrology, the site is located within two river basins and three regional surface water catchments. The southern half of the site is located within the Shannon River surface water catchment within the Shannon International River Basin District. The northern half of the site is located in the Garavogue River surface water catchment. Four of the proposed turbines would be located within the former catchment and six within the latter. The grid connection route would pass through the Shannon River surface water catchment and the Garvogue River surface water catchment.
- In terms of local hydrology, the southern half of the site is located within the Arigna River surface water catchment, which flows into Lough Allen some 16km downstream. The northern half of the site is located within the Bonet River surface water catchment which flows into Lough Gill some 15km downstream. The north-western section of the site is connected to the River Bonet via the Tullynascreen Stream and the Kilanummery Stream. The former emanates from Lough Nacroagh within the site. The Cashel Stream drains the north-eastern section of the site to the River Bonet. The applicant noted that the status for the Arigna River is 'Good' and 'Not at Risk' in the Water Framework Directive River Waterbody Status 2013-2018 and for the Kilanummery Stream is 'Good' and 'At Risk'. The site access road is drained by several streams that flow eastwards to the Owengar River.
- There are two groundwater bodies within the site – the Lough Allen GWB and the Belhavel Lough GWB. These are delineated along a similar line to that

separating the Arigna and Bonet river sub-catchments. Due to low permeability of the bedrock, groundwater flow paths are likely to be short.

- There are numerous man-made drains in place within the site to drain existing forestry.
- There is no flood risk associated with the proposed development on this upland area.
- The applicant proposes an extensive range of drainage mitigation measures at the construction and operational phases. The complexity of this drainage management system has been referred to earlier in my planning assessment.

The assessment of the issue of water is inextricably linked with the soils and geology of this location, the proximity to waterbodies throughout the site, the expanse of the predominant peatland, and ultimately to the potential for a landslide affecting waterbodies on and beyond this site. The sheer complexity and the practical deliverance of the expansive drainage provisions must be called into question, in my opinion. The reliance on the term 'where possible' in proposed mitigation is commonly used by the applicant and the dependence on the suspension of extraction during periods of heavy rainfall is regularly referenced, notably requiring comprehensive control measures before heavy rainfall events, including emergency drainage. The entrainment of suspended solids and the release of nutrients to waterbodies arising from peat failure is a distinct concern with this proposal.

8.7. **Air and Climate**

The applicant's EIAR identified, described and assessed potential effects on air quality and climate arising from the construction, operation and decommissioning of the proposed development.

My considerations are as follows:

- I have acknowledged earlier in my assessment that the principle of the development of a wind farm would be consistent with the aims of reducing

greenhouse gas emissions, improving renewable energy production, and contributing to the aim of achieving a low carbon economy.

- I note that the proposed development includes the excavation of 209,970m of peat and associated drainage potentially effecting peat beyond the infrastructure developments. This is a vast volume of peat to be removed, with a highly complex and very extensive drainage system proposed. This proposal most certainly impacts on the consideration of the carbon balance between the use of the wind farm and the loss of carbon stored in the peat. However, it is accepted that over time the CO_2 lost by the construction of the proposed development would be displaced by the carbon saving of the wind farm after its early years of operation.
- The principal air emissions that would arise would be at the construction phase and would relate to transport emissions and dust generation.
- There would be substantial separation distances between the proposed infrastructure associated with the wind farm development and established residential and farm developments in the area.
- The development would be subject to a Construction Environmental Management Plan and the applicant has an extensive range of mitigation measures aligned with good construction management to address impacts on air quality.

8.8. **Noise and Vibration**

The applicant's EIAR considered the proposed development with due regard to sensitive receptors in the vicinity and examined existing noise sources and noise and vibration sources derived from the proposed development.

My planning assessment has examined the noise impact of the proposed development at the construction, operational and decommissioning phases. I do not propose to repeat these considerations but acknowledge the third party concerns expressed on adverse noise effects from existing wind farm development and on

potential cumulative impacts, while I note the applicant's unsatisfactory conclusions drawn on addressing low frequency noise and amplitude modulation.

My considerations on vibration are as follows:

- The site is remote from sensitive receptors, with the nearest residential property being 850m from proposed Turbine 6.
- The likely significant vibration impacts would arise at the construction phase of the proposed development. Such impacts would be short-term.
- It is not anticipated that the construction of the turbine bases (including piling), the erection of the turbines, the construction of the substation, the development of access roads, the provision of a borrow pits (including blasting activity), or the construction traffic would result in guidance limits relating to vibration being exceeded at any of the nearest sensitive receptors.

8.9. Landscape and Visual Impact

The Board will note my earlier assessment of the environmental effects of the proposed development in terms of landscape and visual impacts. I do not propose to repeat that assessment here. Suffice to indicate the following:

- The proposed development would have significant adverse landscape and visual impacts, both locally and over greater distances from roads, scenic routes, and from tourist and amenity locations and it would impact on scenic views.
- The height and scale of the proposed turbines would result in the development being highly visible.
- The applicant's EIAR clearly shows the prominence of a development of this scale within and from sensitive landscapes and how there would be expansive views of the proposed turbines throughout much of the wider area within the defined Zone of Theoretical Visibility.
- Incongruity with the natural landscape could not be avoided.

- The cumulative impact of the proposed development with existing wind farm development at this location would be significant, with landscape and visual impacts greatly increased as proposed turbines encroach further north-westwards along the ridge.

Overall, it is reasonable to conclude that the proposed development would have a significant adverse landscape and visual impact.

8.10. **Cultural Heritage**

The applicant's EIAR examined the potential impacts of the proposed development on recorded archaeology and the cultural heritage of the site and the area in which it is proposed to be located.

My considerations are as follows:

- The site of the proposed development comprises upland coniferous forestry mainly. The principal features of cultural heritage relevant to the site relate to archaeology. There are no features of architectural heritage or other known features of cultural heritage on the site. The nearest structures of architectural heritage value are some 5km from the nearest proposed turbine.
- The applicant's cultural heritage assessment included an archaeological impact assessment. There was a detailed assessment of the visual effect of the proposed development on monuments and sites of archaeological significance, which included viewshed analysis to assess the effects on the setting of archaeological monuments beyond the site.
- The EIAR states that there are 6 National Monuments within 10m of the nearest proposed turbines. They are screened mainly from view due to natural topography and vegetation.
- There are no monuments subject to statutory protection in the Record of Monuments and Places or the Sites and Monument Record within the site boundary and none are adjacent to this boundary. 95 are located within 5km of the nearest proposed turbine, none within a kilometre of the nearest proposed turbine.

- The applicant's analysis shows that turbines may be visible from these monuments. I accept that there are substantial separation distances between turbines and these archaeological sites.
- I acknowledge that the assessment of the impact on the setting of archaeological sites beyond the site of the proposed development can be subjective but again note the extent of assessment of this issue within the EIAR. This has demonstrated that the likely indirect impacts on the wide range of monuments would not be significant.
- The applicant has provided a range of mitigation measures, which include archaeological monitoring of groundworks.

Overall, excepting the contribution the proposed development would make to the cumulative impact of wind farm development on the internationally important Carrowkeel Passage Tombs as referenced in my visual impact assessment, I conclude that the proposed development is not likely to have a significant environmental impact on cultural heritage.

8.11. **Material Assets**

The material assets examined by the applicant were transportation infrastructure and telecommunications and aviation. The Board will note my assessment on traffic impact and I do not propose to repeat the conclusions drawn in that assessment. Suffice to indicate that the applicant has comprehensively assessed the proposed delivery access route and the construction-related traffic impacts, has identified where the potential impacts would likely result, and has drawn up a range of mitigation measures to reduce the significance of the potential impacts. With the proposed mitigation measures, I do not envisage there would be any substantial long-term adverse impact for the road network affected.

On matters relating to telecommunications and aviation, I submit the following:

- I note that the applicant was in consultation with national and regional broadcasters, fixed and mobile telephone operators, aviation authorities, and other relevant service providers.
- There would be no impacts on telephone and broadband operators generally.
- The Irish Aviation Authority required an aeronautical obstacle warning light scheme to be agreed for the development. If a development of this height and scope is permitted, it is evident that an aeronautical obstacle warning light scheme would be required for reasons of public safety.

The environmental impacts of the proposed development at the construction and operational phases on telecommunications and aviation would not be significant in my opinion.

8.12. **Cumulative Impacts**

I note that the applicant in each section of the EIAR considered the cumulative impacts of the proposal with other land uses, plans and projects in the wider area. I further note the extent of established wind farm developments in what may reasonably be termed the immediate vicinity of this site. I am satisfied that there are clearly a number of wind farm projects which could reasonably be determined to constitute development that would derive significant cumulative environmental impacts with the proposed development, notably in relation to the ornithological impact and the landscape and visual impact, as well as some potential concerns arising from potential increased noise for the wider community.

8.13. **Interaction of Impacts**

Chapter 15 of the EIAR examined the interactions of the potential impacts arising. A matrix is presented to identify potential interactions. I have considered the interrelationships between factors and whether these might affect the environment, even though in some instances the effects may be acceptable on an individual basis.

In conclusion, I am satisfied that there would be significant adverse effects arising, particularly for population and human health/soils/geology/water/climate/biodiversity and for landscape/biodiversity, which cannot be avoided, managed or mitigated by the measures which form part of the proposed development or by planning conditions. My assessment details the extent of adverse impacts arising.

8.14. **Major Accidents**

I note that the applicant's EIAR did not expressly deal with the issue of major accidents. I acknowledge that fire risk can be a potential hazard from the operations of a wind farm. I consider that it is reasonable to observe that the remote siting of the development from established residential and other development, the application of modern technologies and continued monitoring of infrastructure would aid in reducing significant fire risks to the wider community. The other major potential accident that could result from the proposed development would relate to a landslide and peat slippage from excavation, handling and storage of peat in the development of roads and the proposed infrastructure in this upland area that has been prone to slippage in recent times. The potential for a major accident resulting in significant adverse environmental impact arising from the development of this project is real in my opinion. This also clearly has health and safety implications at the construction stage for workers.

8.15. **Reasoned Conclusion**

Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary further information provided by the applicant, and the submissions from the planning authories, prescribed bodies and third parties in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- The proposed development poses a significant risk from landslides, with the development occurring on a peat-dominated environment. A huge volume of

waste material totalling 406,830m^3 is required to be handled, stored and managed on this site. This upland blanket bogland area is prone to landslides, with a history of landslides occurring on and in the immediate vicinity of this site. The proposals to excavate a borrow pit and repositories and to seek to contain and store extensive volumes of peat and other spoil material on this upland mountainside, the development of access tracks across deep areas of peat, the construction of turbines and hardstanding areas on bog, the removal of extensive conifer plantation, and the provision of a highly complex drainage system would result in a significant pollution threat to waterbodies and the wider environment resulting from a landslide.

- An extensive range of birds of conservation value have been observed on, over and in close proximity to the site in the applicant's surveys, indicating that this is an area of significant ornithological value. It is also an area under significant pressure from existing wind farm development, with 13 existing wind farms less than 8km from the site, providing a total of 107 turbines, several of which adjoin the site. The potential for further habitat loss, displacement, and collision risk by yet more turbines arises. This adverse cumulative ornithological impact is compounded by the proposed turbines being significantly higher and larger in scale than the average turbines existing at present at this location, posing a notably greater risk of collision and avian displacement. The cumulative impact would be significant.
- The proposed development would result in significant adverse landscape and visual impacts arising from the siting, scale and height of the proposed turbines, and the cumulative impact with the extensive array of established turbines in the immediate vicinity. The proposed development would be highly prominent over an extensive geographical area, would have a dominant, obtrusive, skyline impact on visually and environmentally sensitive landscapes, and would impact on the amenity and tourism value of the area. The proposal would significantly add to the extent of turbines on the existing ridgeline and it would expand the linear spread north-westwards in the direction of valued scenic, tourist and amenity locations. This cumulative impact and siting of the proposed development would contribute further to the erosion of the quality of the natural landscape.

The submitted EIAR has been considered with regard to the guidance provided in the EPA documents 'Guidelines for Planning Authorities and An Bord Pleanála on Carrying our Environmental Impact Assessment' (2018), 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' (draft August 2017), and 'Advice Notes for Preparing Environmental Impact Statements' (draft September 2015). It is noted that Article 3 (2) of Directive 2014/52/EU requires that:

'The effects referred to in paragraph 1 on the factors set out therein shall include the expected effects deriving from the vulnerability of the project to risks of major accidents and / or disasters that are relevant to the project concerned'.

The submitted EIAR did not include a specific chapter on the issue of major accidents or natural disasters. I would refer the Board to the chapters on Land, Soil and Geology and Water and to my considerations thereon. There is a serious risk relating to landslides with this proposed development which would constitute a major environmental accident arising from such an event.

In conclusion, the likely significant environmental impacts arising as a consequence of the proposed development have been satisfactorily identified, described and assessed. I am satisfied that there would be significant adverse residual impacts relating to soils, geology, water, biodiversity, and landscape and visual effects. Therefore, the proposed development is determined to have unacceptable direct and cumulative impacts on the environment. The benefits resulting from this renewable energy project cannot, and would not, outweigh the serious adverse environmental effects which its construction and operation would likely deliver.

9.0 Appropriate Assessment

9.1 Screening for Appropriate Assessment

9.1.1. *Background*

I note that the applicant submitted an updated Appropriate Assessment Screening Report as Appendix 1 of the Natura Impact Statement (NIS) submitted to the planning authority following the further information request. This Stage 1 AA Screening Report was prepared in line with current best practice guidance. It provides a description of the proposed development, identifies European sites within a possible zone of influence of the development, identifies the possibility of significant effects, addresses the likely cumulative impact, and assesses the significance of potential impacts. The conclusion of the applicant's AA Screening Report is as follows:

"*Following an examination, analysis and evaluation of the relevant data and information set out within this Screening Report, it cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would be likely to have a significant effect on the following sites:*

- *Lough Gill SAC (001976)*
- *Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (000627*
- *Cummeen Strand SPA (004035)*

As a result, an Appropriate Assessment is required, and a Natura Impact Statement has been prepared in respect of the proposed development in order to assess whether the proposed development will adversely impact the integrity of these European Sites.

No pathways for significant effect on any other European Site were identified. Thus it can be excluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would be likely to have a significant effect on any other European Sites other than those listed above."

Having reviewed the screening documents and additional submissions to the planning authority, I am satisfied that the information allows for a complete examination and identification of any potential significant effects of the development, alone or in combination with other plans and projects, on European sites.

9.1.2. ***Description of Development***

The applicant provides a description of the project and the characteristics of the project in Section 2 of the AA Screening Report. In summary, the development comprises:

- Construction of 10 no. turbines with a maximum overall blade tip height of 170 metres and associated hardstand areas;
- A 38kV electrical substation, including a control building with welfare facilities, associated electrical plant and equipment, security fencing, underground cabling, and wastewater holding tank;
- A permanent meteorological mast with a maximum height of up to 100 metres;
- Associated underground electrical and communications cabling connecting the turbines to the proposed substation;
- Works associated with the connection of the proposed wind farm to the national electricity grid via underground cabling to the existing Garvagh substation;
- Upgrading of existing tracks and roads and provision of new site access roads and hardstand areas;

- The partial demolition and alteration of two agricultural buildings and associated junction access and road works to the existing yard, agricultural buildings and agricultural lands to provide a link road for construction traffic off the R280;
- A borrow pit;
- 2 no. peat and spoil repository areas;
- 2 no. temporary construction compounds;
- Recreation and amenity works, including marked trails, boardwalk, viewing area and signage;
- Site drainage;
- Permanent signage;
- Ancillary forestry felling; and
- Associated site development works.

9.1.3. ***European Sites***

I note that the applicant identified and examined nine Special Areas of Conservation and three Special Protection Areas. Due to there being no existing pathways, it was determined that there was no potential for significant effects on Boleybrack Mountain SAC, Unshin River SAC, Cuilcagh-Anierin Uplands SAC, Lough Arrow SAC, Bricklieve Mountains and Keishcorran SAC, Union Wood SAC, Lough Forbes Complex SAC, and Ballykenny-Fisherstown Bog SPA. This is accepted and further assessment of the likely effects on these eight European sites is not required.

Lough Gill SAC (Site Code: 001976) is located over 7km hydrologically from the site. Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code: 000627) is located 28.6km hydrologically from the site. Cummeen Strand SPA (Site Code: 004035) is located approximately 29.1km hydrologically from the site. The latter SAC and SPA are linked hydrologically to Lough Gill. I note that Lough Arrow SPA (Site code: 004050) is located 9.3km from the site.

The qualifying features of conservation interest and conservation objectives for these sites are as follows:

Lough Gill SAC

Qualifying Features

Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]

Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]

Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]

Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]

Austropotamobius pallipes (White-clawed Crayfish) [1092]

Petromyzon marinus (Sea Lamprey) [1095]

Lampetra planeri (Brook Lamprey) [1096]

Lampetra fluviatilis (River Lamprey) [1099]

Salmo salar (Salmon) [1106]

Lutra lutra (Otter) [1355]

Conservation Objectives

To restore the favourable conservation condition of:
Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation,
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites),
Old sessile oak woods with Ilex and Blechnum in the British Isles,

Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*)*,
Sea Lamprey (*Petromyzon marinus*),
Brook Lamprey (*Lampetra planeri*),
River Lamprey (*Lampetra fluviatilis*), and
Atlantic Salmon (*Salmo salar*)

To maintain the favourable conservation condition of White-clawed Crayfish (*Austropotamobius pallipes*) and Otter (*Lutra lutra*).

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

Qualifying Features
Estuaries [1130]

Mudflats and sandflats not covered by seawater at low tide [1140]

Embryonic shifting dunes [2110]

Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]

Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]

Juniperus communis formations on heaths or calcareous grasslands [5130]

Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]

Petrifying springs with tufa formation (*Cratoneurion*) [7220]

Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]

Petromyzon marinus (Sea Lamprey) [1095]

Lampetra fluviatilis (River Lamprey) [1099]

Phoca vitulina (Harbour Seal) [1365]

Conservation Objectives

To restore the favourable conservation condition of:

- Shifting dunes along the shoreline with Ammophila arenaria ('white dunes'),
- Fixed coastal dunes with herbaceous vegetation ('grey dunes'),
- *Juniperus communis* formations on heaths or calcareous grasslands, and
- Sea Lamprey.

To maintain the favourable conservation condition of

- Estuaries,
- Mudflats and sandflats not covered by seawater at low tide,
- Embryonic shifting dunes,
- Petrifying springs with tufa formation (*Cratoneurion*),
- Narrow-mouthed Whorl Snail,
- River Lamprey, and
- Harbour Seal.

Cummeen Strand SPA

Qualifying Features

Light-bellied Brent Goose (Branta bernicla hrota) [A046]

Oystercatcher (Haematopus ostralegus) [A130]

Redshank (Tringa totanus) [A162]

Wetland and Waterbirds [A999]

Conservation Objectives

To maintain the favourable conservation condition of Light-bellied Brent Goose, Oystercatcher, and Redshank, and wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

Lough Arrow SPA

Qualifying Features

Little Grebe (Tachybaptus ruficollis) [A004]

Tufted Duck (Aythya fuligula) [A061]

Wetland and Waterbirds [A999]

Conservation Objectives

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

To maintain or restore the favourable conservation condition of the wetland habitat at Lough Arrow SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

9.1.4. ***Identification of Likely Effects***

It is first acknowledged that the proposed development is not connected with or necessary for the conservation management of any Natura 2000 site. I further note that the site and all works associated with the proposed development are intended to take place outside of the above referenced SACs and SPAs. As a result, there would be no direct loss of habitat within these European sites.

It is acknowledged that there would be hydrological connectivity with three of these European sites. The following is observed:

- Lough Gill SAC is located less than 4.5km from the site and just over 7km hydrological distance from it via the Tullynascreen Stream and the Kilanummery River which drain the northern part of the site. A potential pathway for indirect effects exists in terms of the deterioration of surface water arising from pollution during the construction, operation and decommissioning activities. It is acknowledged that the applicant submits that, due to either the absence of connectivity or the nature of the terrestrial habitats, there is no

potential for indirect effects on the Qualifying Interests ‘Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)’ and ‘Old sessile oak woods with Ilex and Blechnum in the British Isles’.

- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC is located approximately 17.7km from the site and some 28.6km hydrological distance from it via the Killanummery River that joins the River Bonet downstream, entering Lough Gill before entering the SAC at Drumcliff Bay via the Garavogue River. A potential pathway for indirect effects exists in terms of the deterioration of surface water arising from pollution during the construction activities. It is acknowledged that the applicant submits that, due to either the absence of connectivity with the works or the nature of the terrestrial or groundwater dependent habitats, there is no potential for indirect effects on the Qualifying Interests of ‘Embryonic shifting dunes’, ‘Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)’, ‘Fixed coastal dunes with herbaceous vegetation (grey dunes)’, ‘*Juniperus communis* formations on heaths or calcareous grasslands’, ‘Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)’, ‘Petrifying springs with tufa formation (*Cratoneurion*)’, and ‘*Vertigo angustior* (Narrow-mouthed Whorl Snail)’.

- Cummeen Strand SPA is located just over 18km from the site and just over 29km hydrological distance from it via the Killanummery River that joins the River Bonet downstream, entering Lough Gill before entering the SPA at Drumcliff Bay via the Garavogue River. A potential pathway for indirect effects exists in terms of the deterioration of surface water quality affecting the supporting habitat of the Special Conservation Interest (SCI) species. It is accepted that the proposed site soes not offer suitable habitat for the SCI species for which the SPA is designated. It is further accepted that, due to the distance between the site and the SPA and lack of supporting habitat on the site, there is no potential for disturbance or displacement of the SCI species, collision or habitat loss.

I note that the Department of Culture, Heritage and the Gaeltacht referred to the assessment of effects on SCI species for Special Protection Areas in the wider area, including Lough Arrow SPA. This SPA is located over 9km from the site. It is located in a separate hydrological catchment and there are no potential pathways for surface water impacts on the SCI species. While Little Grebe and Tufted Duck are specified SCIs, the Site Synopsis for this SPA recognises that the occurrence of Whooper swan is of note. The Board will note the applicant's bird surveys have indicated the presence of Whooper swan over the site of the proposed development and the Department's reference to Lough Arrow in this context. It is accepted that there is no potential for disturbance or displacement of Little Grebe and Tufted Duck, or for collision or habitat loss.

Given the hydrological connectivity referenced above, the potential for construction, operational and decommissioning activities to indirectly impact on surface water quality by way of pollution on Lough Gill SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, and Cummeen Strand SPA is accepted. Therefore, significant effects on the surface water dependent qualifying interests of these SACs and the Wetland and Waterbird qualifying interest of the SPA cannot be excluded beyond reasonable scientific doubt.

I wish to impress upon the Board that there is a distinct potential for a landslide arising from the construction stage of the proposed development, with likely significant effects on the Qualifying Interests and habitats for wetland and waterbirds which cannot be excluded.

9.1.5. ***In-combination Effects***

Cumulative in-combination effects could potentially result with forestry felling and further forestry plantation at this location and with other existing and proposed wind farm development in the wider area. Thus, it is accepted that there is potential for significant cumulative effects with other potential sources of pollution in the area.

9.1.6. ***Mitigation Measures***

No measures designed or intended to avoid or reduce any harmful effects of the proposed alterations on a European site have been relied upon in this screening exercise.

9.1.7. ***Screening Determination***

The proposed development has been considered in light of the requirements of Section 177U of the Planning and Development Act 2000 as amended. Having carried out Screening for Appropriate Assessment of the project, it has been concluded that the project individually or in combination with other plans or projects would be likely to give rise to significant effects on Lough Gill SAC (Site Code: 001976) and, via Lough Gill, on Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code: 000627), and Cummeen Strand SPA (Site Code: 004035), in view of their Conservation Objectives, and Appropriate Assessment is therefore required.

This determination is based on the following:

- The nature and extent of the proposed works associated with the proposed development and the operation of the wind farm, and
- The known pathways between the site and the European sites.

9.2. **Appropriate Assessment**

9.2.1. **Background**

The proposed development is not directly connected to or necessary for the management of any European site. It is therefore subject to the provisions of Article 6(3) of the EU Habitats Directive. Following the screening process above, it has been determined that appropriate assessment is required as it cannot be excluded on the basis of objective information that the proposed development individually or in-combination with other plans or projects will have a significant effect on Lough Gill

SAC (Site Code: 001976), and then on Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code: 000627), and Cummeen Strand SPA (Site Code: 004035). The possibility of significant effects on other European sites has been excluded on the basis of objective information. Measures intended to reduce or avoid significant effects were not considered in the screening process.

9.2.2. **Natura Impact Statement**

The application included a document entitled *Natura Impact Statement: Croagh Wind Farm, Co. Leitrim & Co. Sligo*. This NIS was subsequently revised and resubmitted in response to the planning authority's further information request. The NIS summarises the AA Screening Report, gives a description of the project, identifies characteristics of the receiving environment and the relevant Natura 2000 sites, discusses potential direct and indirect effects on European sites, and considers residual adverse effects and cumulative effects. The NIS had due regard to the array of studies, field surveys and consultations undertaken as part of the application. The NIS was prepared in line with current best practice and provides an assessment of a range of potential effects on the SACs and the SPA arising from the proposed development.

The NIS concluding statement was as follows:

"*For the reasons set out in detail in this NIS, in 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 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."

I note the submission received from Inland Fisheries Ireland and the Department of Culture, Heritage and the Gaeltacht on this application, the considerations of the planning authorities, including the Environment Section, the applicant's consultation with prescribed bodies and other interested bodies and agencies, and the third party submissions.

Having reviewed the documents, submissions, reports and consultations, I am satisfied that the available information allows for a complete assessment of any adverse effects of the development on the conservation objectives of Lough Gill SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, and Cummeen Strand SPA alone, or in combination with other plans and projects.

9.2.3. **Appropriate Assessment**

Introduction

This assessment considers all aspects of the proposal which could result in significant effects and mitigation measures designed to avoid or reduce any adverse effects are considered and assessed. The assessment has had due regard to the applicant's submitted Natura Impact Statement, the Environmental Impact Assessment Report, the reports received by the planning authority and the Board, and third party submissions.

The following guidance is adhered to in the assessment:

DoEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.

EC (2002) Assessment of plans and projects significantly affecting Natura 2002 sites. Methodological guidance on the provisions of Articles 6(3) and 6(4) of te Habitats Directive 92/43/EC.

EC (2018) Managing Natura 2000 sites.

European Sites

The following sites are subject to appropriate assessment:

- Lough Gill SAC (Site Code: 001976),
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code: 000627), and
- Cummeen Strand SPA (Site Code: 004035)

A description of these sites and their Conservation and Qualifying Interests / Special Conservation Interests, including any relevant attributes and targets for these sites, are set out in the NIS. Details of these European sites' Conservation and Qualifying Interests / Special Conservation Interests are set out in the Screening undertaken earlier in this report.

Relevant Aspects of the Proposed Development

I note that, in terms of local hydrology, the southern half of the site is located within the Arigna River surface water catchment, which flows into Lough Allen downstream. The northern half of the site is located within the River Bonet surface water catchment which flows into Lough Gill downstream. The north-western section of the site is connected to the River Bonet via the Tullynascreen Stream and the Kilanummery Stream. The former emanates from Lough Nacroagh within the site. The Cashel Stream drains the north-eastern section of the site to the River Bonet.

Section 3 of the applicant's NIS details the characteristics of the proposed works associated with the project and Section 7 identifies other plans, projects and activities relating to potential in-combination effects. I once again acknowledge that the site is outside of and beyond the boundaries of any European site and, as a result, there would be no direct effects on the qualifying interests of any European site.

The main aspects of the proposed development that could adversely affect the conservation objectives of Lough Gill SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, and Cummeen Strand SPA relate to the potential for construction, operational and decommissioning activities to indirectly impact on surface water quality by way of pollution.

The potential effects would include:

- Deterioration of water quality arising from a landslide affecting aquatic habitats and species in the European sites,
- A reduction in water quality by way of silt runoff, hydrocarbons, cementitious material and other pollutants during construction, operation and decommissioning which could affect the aquatic habitats and species in the SACs, and
- Deterioration in surface water quality by way of silt runoff, hydrocarbons, cementitious material and other pollutants during construction, operation and decommissioning which could affect the supporting wetland habitat of SCI waterbirds in the SPA.

The Board will note that the applicant's NIS did not definitively address the likely significant effects on European sites arising from a potential landslide. My assessment on this issue in relation to management of spoil, drainage provisions and the assessment of soils, geology and water in the EIA section of my assessment have clearly detailed the concerns arising and the real risk of a landslide resulting from the proposed development. The outcome arising from a landslide would have profound impacts on the surface waters of an expansive area in the vicinity of this site, including those waterbodies within the designated Lough Gill SAC. The following observations synopsise the issues and concerns at hand:

- The site is classified by Geological Survey Ireland as being of low to moderately high landslide susceptibility.
- The vulnerability of this area to peat slides, as evidenced by a number of recent peat slides on and in the immediate vicinity of this site, is acknowledged.
- The applicant acknowledges the susceptibility of the site to landslides and accepts that extensive parts of this site are at significant risk at the construction stage in the immediate vicinity of several turbines and access roads.
- The proposal includes the excavation and management of 209,970m^3 of peat, with a total of 406,830m^3 of spoil proposed to be excavated and managed.

- There are significant depths of peat at some turbine locations and along sections of proposed new access roads. There are marginally low Factors of Safety alongside existing and proposed access roads, particularly along the proposed access road to Turbine 9, where some of the deepest areas of peat prevail. There is low permeability of the limestone bedrock at this location, leading to a high water table. 55.1 hectares of trees growing predominantly on peat are proposed to be felled, and the soils and subsoils would be subsequently exposed after felling. There are numerous mapped faults in the area, including two within the site. The upland nature of the terrain and the high rainfall levels to be expected in this location are acknowledged. There is a high density of drainage channels throughout this site.
- The proposed development includes deep excavations for turbine bases, development of hardstanding areas, the construction of access roads cutting across the contours on bogland and providing preferential flow paths for surface waters, along with the development of other infrastructure.
- The excavated spoil is to be disposed of in a worked out borrow pit and in two repositories. There is no clear understanding of how the primary waste repository is intended to be finally constructed and there is lack of clarity about the type of rock intended to be extracted at this borrow pit. Furthermore, the applicant is unsure about the type and condition of rock at the repository locations, how the repositories are intended be drained, and whether or not measures will be required for the control of groundwater.
- The very precise nature of very expansive proposed drainage measures in a peat-dominated environment is noted.
- The destabilising impacts of proposed engineered drainage works are noted, together with clear felling, at a sensitive upland location, where there are concerns about the functionality of the proposed provisions, the timing of construction works, and the ability to adequately manage and maintain such drainage infrastructure.

In my opinion, the above results in a clear concern that entrainment of suspended solids and the release of nutrients to waterbodies arising from peat failure and a landslide is a distinct concern with this proposal, with potential significant effects for

Lough Gill SAC which has hydrological connectivity with Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA.

9.2.4. **Potentially Significant Cumulative Effects**

I note Section 7 of the applicant's NIS wherein a review of plans and projects with the potential to result in cumulative and/or in-combination effects was undertaken. This included a review of the relevant provisions of Leitrim, Sligo and Roscommon County Development Plans, forestry, and other existing and proposed wind farm developments in the wider area. The recent construction of the Garvagh Glebe wind farm and the landslide resulting from these works have already been referred to in my assessment. The proposed development individually poses a significant threat from a landslide and, thus, would potentially be likely to adversely affect the integrity of Lough Gill SAC. The occurrence of a significant environmentally damaging landslide on the adjoining lands indicates that there is a real threat posed by the proposed development.

9.2.5. **Mitigation**

Section 5 of the applicant's NIS details the range of mitigation measures intended to be employed as part of the proposed development. The measures include mitigation by design, construction methodologies, drainage management, culvert upgrading, handling of hydrocarbons and waste material, control measures for cement, peat stability management, and monitoring.

I submit to the Board that, in the event of a landslide, the applicant's proposed mitigation measures simply will not work. Indeed, I contend that the applicant's proposed mitigation measures are most likely to exacerbate the potential for a landslide on this site at the construction stage, by creating instability. In my opinion, there is definitive scientific doubt about the effectiveness of the applicant's proposed mitigation measures.

9.2.6. **Residual Impacts**

Having regard to my considerations on the potential for a landslide arising from the construction of the proposed development, I cannot concur with the applicant's inference that, if the proposed mitigation measures are implemented in full, it is

expected that significant effects would not result for the qualifying features of Lough Gill SAC and Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC or for the habitats for species of conservation interest of Cummeen Strand SPA.

Following my appropriate assessment of the proposed development and, with due regard to consideration of the proposed mitigation measures, I am not able to ascertain with any confidence that the proposed development would not adversely affect the integrity of Lough Gill SAC in view of the Conservation Objectives of this site. I must also acknowledge that, due to the hydrological connectivity of Lough Gill SAC with Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA, lack of significant effects on the integrity of these European sites cannot be assured. This conclusion is drawn on a complete assessment of all implications of the proposed development alone and in combination with other plans and projects.

9.2.7. **Appropriate Assessment Conclusion**

The proposed development has been considered in light of the assessment requirements of the Planning and Development Act 2000 as amended.

Having carried out screening for appropriate assessment of the project, it was concluded that it may have a significant effect on Lough Gill SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, and Cummeen Strand SPA. Consequently, an appropriate assessment was required of the implications of the project on the qualifying features of those sites in light of their conservation objectives.

Following an appropriate assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects, would likely adversely affect the integrity of Lough Gill SAC, and potentially Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA, in view of the sites' Conservation Objectives.

This conclusion is based on a complete assessment of all aspects of the proposed project. It is concluded that there is reasonable doubt as to the absence of adverse effects.

This is based on:

- A full and detailed assessment of all aspects of the proposed project, including proposed mitigation measures in relation to the Conservation Objectives of Lough Gill SAC.
- Detailed assessment of in-combination effects with other plans and projects.
- Reasonable scientific doubt as to the absence of adverse effects on the integrity of Lough Gill SAC and potentially on Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA.

10.0. Recommendation

I recommend as follows:

Appropriate Assessment

The Board agreed with the screening assessment, appropriate assessment and conclusion contained in the Inspector's report that Lough Gill SAC (Site Code: 001976), Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code: 000627), and Cummeen Strand SPA (Site Code: 004035) are the European sites for which there is a likelihood of significant effects.

The Board considered the submitted Screening Reports for Appropriate Assessment, the Natura Impact Statements and all other relevant submissions and carried out an appropriate assessment in relation to the potential effects of the proposed development on the above referenced European sites. The Board noted that the proposed development is not directly connected with or necessary for the management of a European site and considered the nature, scale and location of the proposed development, as well as the report of the inspector. In completing the appropriate assessment, the Board adopted the report of the inspector and concluded that the proposed development, by itself, or in combination with other plans or projects in the vicinity, would be likely to have a significant effect on the European sites in view of the sites' conservation objectives.

Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking account of:

(a) The nature, scale, location and extent of the proposed development,

(b) The Environmental Impact Assessment Reports (EIAR) and associated documentation submitted in support of the application,

(c) The submissions received from the planning authorities, prescribed bodies and third parties, and

(d) The Inspector's report.

The Board considered that the Environmental Impact Assessment Reports, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes the direct, indirect, secondary and cumulative effects of the proposed on the environment.

The Board agreed with the examination set out in the Inspector's report of the information contained in the Environmental Impact Assessment Reports and associated documentation submitted by the developer and submissions made in the course of the planning application.

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are as follows:

- A significant risk from a landslide, with due regard to the development occurring on a peat-dominated environment, the requirement for a very significant volume of waste material to be handled, stored and managed on the upland site, the blanket bogland area being prone to landslides, the inadequacy of provisions to contain and store extensive volumes of peat and other spoil material on the site, the development of access tracks across deep areas of peat, the construction of turbines and hardstanding areas on bog, the removal of extensive conifer plantation, and the provision, functionality of and reliance on a highly complex drainage system.

- Habitat loss, displacement and collision risk arising from a development of this scale, height and location for birds of conservation value, including Annex I species Hen Harrier, Golden Plover and Whooper swan, together with the cumulative ornithological impact arising with established wind farm development in the immediate vicinity leading to erosion of the quality of the environment for sensitive bird species of conservation value by distorting migratory routes, eroding habitat, encroaching on foraging areas, and affecting opportunities for roosting and breeding sites.

- Significant adverse landscape and visual impacts arising from the siting, scale and height of the proposed turbines, which would be highly prominent over an extensive geographical area, would have a dominant, obtrusive, skyline impact on visually and environmentally sensitive landscapes, and would impact on the amenity and tourism value of the area, together with the cumulative impact of the proposed development at this location and the expansion of the linear spread of turbines north-westwards in the direction of valued scenic, tourist and amenity locations, which would contribute further to the erosion of the quality of the natural landscape.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that the effects of the development on the environment, by itself and in combination with other plans and projects in the vicinity, would not be acceptable due to the health and safety risks and the environmental impacts arising from a potential landslide, the impact on protected bird species, and the adverse landscape and visual impacts. In doing so the Board adopted the report and conclusions of the inspector.

Having regard to the conclusions drawn in my planning assessment, the assessment of environmental impacts and my assessment of likely significant effects on European sites, I recommend that permission is refused for the proposed development for the following reasons and considerations:

Reasons and Considerations

1. Having regard to:

(a) The classification of the site by Geological Survey Ireland as being of low to moderately high landslide susceptibility;

(b) The high density of historical landslides in this area, including three landslides within the site itself;

(c) The numerous mapped faults in the area, including two within the site;

(d) The upland and sloping nature of the terrain;

(e) The high rainfall levels prevalent in this location;

(f) Blanket bog being the dominant soil type at the site;

(g) The low permeability of the limestone bedrock on the site, leading to a high water table;

(h) The high density of drainage channels throughout the site, both natural and man-made;

(i) The timing of construction works outside of the breeding season for birds coinciding with wetter periods;

(j) The expansive areas of trees to be clear felled, with peat soils and subsoils subsequently exposed;

(k) The extensive water crossings and crossing upgrades required;

(l) The deep peat at turbine locations and along existing and proposed access roads;

(m) The significant volumes of peat and other spoil material requiring excavation, handling, storage and management on the site;

(n) The instability associated with the works and movement of waste material, including the necessity for placement of vast volumes of waste peat and other spoil materials in three large repositories on bogland hilly terrain;

(o) The construction of high retaining stone buttresses required to contain waste peat and other spoil;

(p) The peat-dominated nature of the soils at the repository locations;

(q) The lack of a clear understanding of the land and ground conditions associated with the development of the proposed peat repositories, including matters relating to the final construction of the primary repository, the drainage of the peat repositories, measures required for the control of groundwater, the type and condition of rock at the repository locations, and the hillside siting of the northernmost repository and the associated clear felling of forestry;

(r) The construction works culminating in interference with the natural terrain by the development of the turbine bases and the hardstanding areas, the construction of access roads cutting across contours on bogland, the provision of preferential flow paths for surface waters, and road widening and improvement works along existing internal roads;

(s) The proposed highly complex system of drainage and the very precise nature of the application of many of the proposed measures required for their functionality; and

(t) The destabilising impacts of the proposed engineered drainage works,

it is considered that, due to the elevated risk of a major accident arising from a landslide associated with the proposed wind farm, the proposed development would pose a serious danger to the environment, potentially causing extensive pollution of waterbodies within and in the vicinity of the site. Furthermore, the Board is not satisfied that the proposed repositories would be effective in providing for the permanent retention of peat and other unsuitable materials and that the mitigation measures, inclusive of the proposed complex drainage system, would be adequate to ensure the protection of the environment. Therefore, it is considered that the proposed development would present a significant risk of adverse environmental impact on the sensitive natural habitats of the site and of the wider area, constituting an unacceptable risk of pollution of watercourses in the area and seriously injuring the amenities of property in the vicinity. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

2. The site of the proposed development is located within an area of significant ornithological value, as evidenced by the applicant's bird surveys in support of the application. It is the policy of Leitrim County Council, as set out in Leitrim County Development Plan, to treat the uplands of North Leitrim located above the 160m contour as an ecologically-sensitive entity, where these uplands are not already designated as such. This is an area under significant development pressure for wind farm development.

   It is considered that the siting, height, scale and operation of the proposed turbines would result in a loss of habitat, disturbance and displacement for Annex I bird species, inclusive of Hen Harrier, Golden Plover and Whooper swan, as well as significant risk of collision. Furthermore, it is considered that the cumulative impact of wind turbines in the immediate vicinity, together with the proposed development, would substantially erode the quality of the natural environment for these sensitive bird species, including distorting migratory routes, eroding habitat, encroaching on foraging areas, and affecting roosting and breeding sites. The proposed development would, thus, have significant adverse impacts on the ornithological importance of the area by way of collision, mortality, disturbance and displacement of protected bird species, would be incompatible with the policy to treat this area as an ecologically-sensitive entity, and would, therefore, be contrary to the proper planning and sustainable development of the area.

3. The site of the proposed development is located in a prominent and visually sensitive location on the north-eastern slopes of Carrane Hill and immediately north-west of Corrie Mountain in north County Leitrim and south-east County Sligo. This is a location that is visually prominent from Lough Gill to the north, Lough Allen to the east, and Lough Arrow and Carrowkeel Passage Tombs to the west, which are areas of significant tourism, amenity and archaeological value. Corrie Mountain Bog Natural Heritage Area adjoins the site to the east and Carrane Hill Bog Natural Heritage Area is located a short distance to the west.

   In the Leitrim County Development Plan, the Corrie Mountain area to the south-east is designated an Area of High Visual Amenity and Lough Gill and its

immediate hinterland to the north are designated an Area of Outstanding Natural Beauty. Furthermore, the Plan has designated a number of outstanding views and prospects, which are views primarily of the county's lakes and upland areas from public roads that are seen as an important resource for the development of tourism in the county. Environmentally sensitive areas identified in the Plan include Natural Heritage Areas, Areas of Outstanding Natural Beauty, Areas of High Visually Amenity, Outstanding Views and Prospects, and Areas of Archaeological Importance. It is a provision of the Plan that development that would compromise the integrity of an environmentally sensitive area will not be favoured by the planning authority. Objectives of the Plan include:

- Protect all Natural Heritage Areas (Objective 66),
- Protect Lough Gill and environs Area of Outstanding Natural Beauty (Objective 80),
- Protect Corry Mountain and Lough Allen Areas of High Visual Amenity (Objective 81), and
- Protect the view towards Carrigeencor Lake from Local Roads LS08162 and LS08164 (Objective 82).

In the Sligo County Development Plan, a designated Sensitive Rural Landscape immediately adjoins the site to the west and the ridgeline of Carrane Hill within this Sensitive Rural Landscape is designated a Visually Vulnerable Area. The shorelines of Lough Gill to the north are designated Sensitive Rural Landscapes and Visually Vulnerable Areas in the Plan, as are the areas west of Lough Arrow, inclusive of Carrowkeel Passage Tombs. There are designated scenic routes to the west/south-west of the site (Scenic Route 66) and in the vicinity of Lough Gill to the north (Scenic Route 13) from which the views and prospects to Visually Vulnerable features are to be preserved. Policies of the Plan include:

- Protect significant landscapes from the visual intrusion of large-scale energy infrastructure (Policy SP-EN-7),
- Protect the physical landscape, visual and scenic character of County Sligo and seek to preserve the county's landscape character (Policy P-LCAP-1),

- Discourage any developments that would be detrimental to the unique visual character of designated Visually Vulnerable Areas (Policy P-LCAP-2),
- Require the preservation of the context, amenity, visual integrity and connection of archaeological monuments to their setting (Policy P-AH-3), and
- Preserve the scenic views listed in the Plan and the distinctive visual character of designated Scenic Routes by controlling development along such Routes and other roads (Policy P-LCAP-3).

Furthermore, it is an objective of the Plan to protect the internationally important archaeological landscape of Carrowkeel (Objective O-AH-1).

Having regard to:

- The height and scale of the proposed wind turbines,
- The siting on elevated ridgelines,
- The highly prominent skyline nature of the wind turbines,
- The proximity to Carrane Hill Bog and Corry Mountain Bog Natural Heritage Areas,
- The encroachment northwards towards, and the prominent visual and landscape impact on, the Lough Gill Area of Outstanding Natural Beauty,
- The high level of visibility of the proposed turbines over an expansive area, inclusive of Areas of High Visually Amenity, Sensitive Rural Landscapes, Visually Vulnerable Areas, and Carrowkeel Passage Tombs,
- The prominence of the proposed turbines from designated scenic routes and the protected views, which form an integral part of the tourism resource of the area, and
- The cumulative impact with extensive wind farm development in the immediate vicinity,

it is considered that the proposed development sited at this location would constitute a highly obtrusive development that would:

- detract from the existing natural character of the area,

- adversely affect the natural landscape and visual context of Lough Gill and its associated amenities (inclusive of Parkes Castle, one of County Leitrim's principal historical and tourism assets),
- erode the landscape and visual quality of the designated scenic routes in the vicinity,
- distort the visual qualities of protected views,
- adversely impact on the rural character of the area,
- exacerbate the cumulative impact of wind farm development from amenity sites on the shoreline of Lough Allen, and
- would otherwise compromise the scenic amenities of this visually sensitive and vulnerable area.

The proposed wind turbines would, thereby, comprise excessively dominant features and a visually obtrusive form of development in this landscape, which would contribute to the erosion of the visual and environmental amenity of the area, would materially conflict with the policies and objectives as set out in the Leitrim and Sligo County Development Plans, and would seriously injure the landscape and visual amenities of the area. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

Kevin Moore
Senior Planning Inspector

1st July 2022