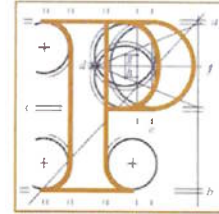


Our Case Number: ABP-318446-23

Planning Authority Reference Number:



**An
Bord
Pleanála**

Fintan Veale
Turbeha
Cappoquin
Co. Waterford
P51 V5Y9

Date: 30 January 2024

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

In the townlands of Coumnagappul, Carrigbrack, Knockavanniamountain, Barricreemountain Upper and Glennaneanemountain, Skeehans, Lagg, Co. Waterford.
(www.coumnagappulwindfarmSID.ie)

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Board will revert to you in due course with regard to the matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Board or email sids@pleanala.ie quoting the above mentioned An Bord Pleanála reference number in any correspondence with the Board.

Yours faithfully,

Niamh Hickey
Executive Officer
Direct Line: 01-8737145

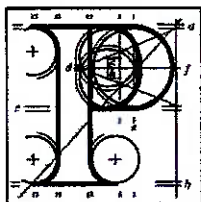
PA04

Teil
Glaao Áitiúil
Facs
Láithreán Gréasáin
Riomhphost

Tel (01) 858 8100
LoCall 1890 275 175
Fax (01) 872 2684
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64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902



Observation on a Strategic Infrastructure Development Application

Observer's details

1. Observer's details (person making the observation)

If you are making the observation, write your full name and address.

If you are an agent completing the observation for someone else, write the observer's details:

(a) Observer's name

Fintan Veale

(b) Observer's postal address

Turbeha,
Cappoquin,
Co Waterford.
P51v5y9

Agent's details

2. Agent's details (if applicable)

If you are an agent and are acting for someone else **on this observation**, please **also** write your details below.

If you are **not** using an agent, please write "Not applicable" below.

(a) Agent's name

Click or tap here to enter text.

(b) Agent's postal address

Click or tap here to enter text.

Postal address for letters

3. During the process to decide the application, we will post information and items to you or to your agent. For this **current application**, who should we write to? (Please tick ✓ one box only)

You (the observer) at the postal address in Part 1

☒

The agent at the postal address in Part 2

☐

Details about the proposed development

4. Please provide details about the **current application** you wish to make an observation.

- (a) **An Bord Pleanála case number for the current application (if available)**
(for example: 300000)

318446

- (b) **Name or description of proposed development**

Counnagappul wind farm co Waterford SID

- (c) **Location of proposed development**

(for example: 1 Main Street, Baile Fearainn, Co Abhaile)

Counnagappul, larrigbrack, knockavanniamountain, barricreemountain
upper & glennaneanemountain, skeehans, lagg, co Waterford.

Observation details

5. Grounds

Please describe the grounds of your observation (planning reasons and arguments). You can type or write them in the space below. There is **no word limit** as the box expands to fit what you write.

You can also insert photographs or images in this box. (See part 6 – Supporting materials for more information).

I Fintan Veale, make this submission/ observation in relation to BORD PLEANALA case reference- 318446, Coumnagappul wind farm, county Waterford.

This submission is in relation to EMPOWER/ APPLICANTS, proposed grid construction phase as well as the grid connection route and the methodology used, of which I have a number of observed doubts and concerns on the risk of planning permission been granted along with other possible legal implications.

The applicant Empower- Coumnagappul wind farm, proposes to use Horizontal directional drilling (HDD) of the Colligan River at Kildangan bridge.(Page 17 table 3-2, watercourse crossing 1, Eiar/vol 3 appendix 2.1)

On the following page 18, it states,

‘HDD will be employed in accordance with the following methodology’

“ The depth of the borehole should be 3meteres (3000mm) below the level of the public road so as not to conflict with road drainage and watercourse’

At this early stage of my observation i would like to bring to the boards attention that the same company ‘Empower’ and the same consultant engineering, environmental science firm-‘ Fehily Timoney’ in their application to the board in relation to their previous dyrickhill wind farm ABP application no-317265. Which also has a HDD crossing at the very same location have previously stated that their

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"HDD will be implemented to bore approximately 1500mm (1.5m) beneath the waterway and bridge foundations. The depth is based on locating a suitable clay/silt formation for HDD and the required depth may increase subject to geotechnical investigations'

see (ABP 317265- appendix 2.4 tli technical notes p.24)

So as it stands we have the same wind development company 'Empower' and the same consultant Engineering, Environmental Science firm ' Fehily Timoney' submitting two planning applications for two separate wind farm developments that both use HDD water crossing at the same location but with two different bore depths.

I now contend that Fehily Timoney, Environmental impact assessment report/ Appropriate Assessment process/ Screening and Natura impact Statement cannot be viewed as been lawful and would not stand up in case law as it,

'Does not contain complete, precise and definitive findings and conclusions and as shown have lacunae and gaps in its assessment'.

An application without a definitive and consistent method and plan in place is inaccurate and invalid as the ambiguity is completely unacceptable especially when the construction works lie in the zone of influence of a European designated site. Dungarvan harbour is a recognised special area of protection (SPA) under the EU Birds Directive 2009/147/ec and is classified as site no 004032. It is also a proposed Natural Heritage area (00663)

The Colligan River is the main hydrological pathway that flows into Dungarvan harbour SPA with the proposed HDD lying 1.8km up river, putting it within the zone of influence of the Dungarvan harbour SPA.

5. Grounds

BENTONITE, SUSPENDED SOLIDS/SILT, HYDROCARBONS AND THEIR NEGATIVE IMPACTS ON A EU DESIGNATED SITE.

In relation to the clearbore/bentonite drilling fluid and the use of in the HDD process, it is known that Bentonite and its derivatives can contain harmful metals such as, Arsenic, Lead and mercury. A document from Scotland's and northern Irelands netregs Environmental Guidance body states:

'Bentonite can be highly polluting to water if it is released into the environment' (1)

The HDD process involves three stages,

1. Pilot hole,
2. Pre-reaming,
3. Pipe pullback.

In each of these 3 stages Bentonite is used. Increasing the risk of bentonite release by a factor of three.

Additional Environmental concerns in relation to Bentonite mud slurry release into the colligan river include the following:

' Due to their low water conductivity and high water holding capacities, added bentonite clay from drilling mud releases can function as aquitards limiting ground water flow in and out of wetlands' (2)

' Any large effects to hydrological conditions would translate into poor conditions for wetland plant establishment and growth' (2)

"released drilling mud could also affect aquatic plant communities by reducing light availability for photosynthesis and seedling germination"(2)

5. Grounds

' Released drilling mud into streams and rivers could elicit increased invertebrate drift and potentially more severe effects to invertebrate communities and /or habitat quality'(2)

In relation to suspended solids /silt which can come from earthworks and excavations associated with the grid route crossing of the colligan river will have the potential to generate particulate/silt laden surface waters from the works area and for this to be discharged via run off or through existing road side drains to the colligan river and on down to the wetland habitat of the Dungarvan harbour SPA.

In relation to Hydrocarbons;

Releases of hydrocarbons similar to suspended solids arising from the excavation activities, hydrocarbons accidentally introduced to the colligan river during works associated with the grid connection route crossing will be conveyed downstream to the Dungarvan harbour SPA.

Hydrocarbons are a pollutant risk due to their toxicity to all flora and fauna organisms, including the special conservation interest bird species of the Dungarvan harbour SPA.

The potential impacts of a hydrocarbon release for the down river wetlands habitats and the special conservation bird species can be long lasting.

5. Grounds

THE DANGERS TO THE BALLINAMUCK AQUIFER- DUNGARVAN TOWN DRINKING AND BUSINESS WATER SUPPLY DUE TO THE HDD WATERCROSSING AT THE COLLIGAN RIVER:

In the Waterford county geological site report and in regard to the ballynamuck boreholes (3) It states:

Main Geological or Geomorphologic interest.

'Combined, the four boreholes have been proven to be capable of supplying up to 10,000m³ per day, or 10 million litres of water.

These boreholes comprise therefore potentially some of the best yielding wells in Ireland. It is considered that the river colligan which is only meters from the boreholes laterally, is perched on top of the alluvial clay deposits'

Site importance.

'These are exceptionally productive bored wells which are among the top-yielding wells in the country. They are of county Geological site importance.'

During the HDD process:

'Geotechnical- based risks are associated with the type, properties and behaviour of the encountered geotechnical material/soils. For shorter crossings, it is recommended that boreholes be completed on or as close as possible to each bank or edge of a crossing feature. Boreholes completed far away from the a water body crossing due to an inability to access or to mobilize equipment to the crossing location introduces risks associated with unknown geotechnical

5. Grounds

conditions until the time of construction, when the construction contractor may not be able to effectively manage the encountered geotechnical materials'

[Going under water: Engineering challenges associated with water body crossing, Glen Duyvestyn, PH.D, P.E, P.ENG](4)

During the HDD process;

' the drilling fluid will become mixed with material drilled in the borehole to form a drilling mud. As the drilling is completed under pressure and blockages in the pilot hole during drilling or reaming can result in inadvertent breakout of drilling mud within the pilot hole. Such breakouts can occur where an alternative path of less resistance, through the over burden present during a blockage'

I ask the board to consider, what would happen if the alternative path of less resistance happens to damage or open a channel to the karst (diffuse) aquifer of Ballynamuck. The result would no doubt be the contamination of the ballynamuck aquifer and Dungarvan town's drinking water supply.

This very scenario occurred in 2021 where bentonite slurry was leaked by HS2 contractors into an aquifer that carries water to those living and work in London.

" High speed 2 (HS2) contractors have admitted leaking 1,500m³ of bentonite slurry into a chalk aquifer that traditionally carries water supplied To Londoners – as the environmental agency faces a legal challenge over its approval of the works"(5)

Any legal challenge in an Irish context would be of little recompense to the business and people of Dungarvan town who rely on clean uncontaminated drinking water from the Ballynamuck aquifer.

5. Grounds

Below is a list of report descriptions regarding the Ballynamuck aquifer.

In relation to the Ballynamuck aquifer, further concerns are raised into the possibility of groundwater contamination by the HDD crossing of the river Colligan.

On pages 1 and 2 of the Dungarvan gwb: summary of initial characterisation (6) , it states:

VULNERABILITY.

'The sandy tills are considered moderately permeable and rang from 0->10m thickness in the valley floor which leads to to are variable vulnerability

Areas of high vulnerability bound this to the north and south'(6)

Kildangan bridge and the river colligan HDD river crossing lies north of the Ballynamuck aquifer.

MAIN RECHARGE MECHANISIMS.

.' Recharge to the limestone synclines is likely to be increased as a result of surface water running off the surrounding less permeable and topographically higher old red sandstone rocks onto the more permeable limestone. The sandy till probably allows significant recharge in most areas'(6)

Therefore any contaminated surface water and bentonite mud slurry would go into recharging the Ballynamuck aquifer.

THE APPLICANT in my opinion HAS FAILED TO SHOW DEFINITIVE MITIGATION MEASURES THAT WOULD PREVENT THIS EVENT FROM OCCURING.

GROUNDWATER FLOW PATHS.

' The upper weathered and fractured zone of bedrock acts as a zone of high

5. Grounds

permeability; large fissures or karistic conduits are often present within the bedrock, through which a large proportion of groundwater flow takes place; and where sand and gravel is present[e.g. at Ballynamuck] increased ground water storage will be available to the well'(6)

Could the sand and gravel mix present a problem or pose a risk to this HDD river crossing going very wrong.

According to Mark Miller PE and Jon Robson PE Geo-technical engineers, this seems to be the case,

HDD construction cuttings removal.

"In gravely sized soils, no amount of drilling fluid modifications can be made to transport large gravel sized particles from the hole. If gravel content of the formation is great enough, the build up of these particles down hole can restrict the hole enough to cause the pull section to get stuck during pull back operations" (7)

No mitigation measures could be found in the applicants planning documents in relation to this eventuality and the concerns and doubts go on in relation to the grid connection/ construction phase of this project.

With the European and Irish legislation continuing to place strong emphasis on achieving a high standard of water quality, the water framework directive which was adopted in 2000, requires that good status is achieved in all water bodies by 2027.

"All water framework directive (wfd) water bodies have been identified as drinking water protected areas due to the potential for qualifying abstractions of water for human consumption as defined in article 7 of the wfd. The ground water drinking

5. Grounds

areas (gwda) are represented by the full extent of each wfd ground water body. This in turn is drawn up with due accordance with European communities(drinking water) (no2) regulations 2007, (si.no278/2007) (8)

With the above in mind it is important to highlight that the kildangan bridge hdd construction under the colligan river is shown to be within Waterford city and county group scheme and public supply source protection zone and can be seen as thus at geological survey Ireland ground water data viewer for Dungarvan co. Waterford.

Grid connection route Watercourse crossing 2.

Ballynaguilkee lower stream.

According to the applicant there already exists a culvert crossing of the Ballynaguilkee lower stream and they further state: on page 16. Eiar/vol ii ch 12.

'The crossing method will use a culvert undercrossing or over crossing method which will be selected based on the cover available above the culvert..'

They then go on to state:

'Where it is not possible to cross under the existing culvert in place, the culvert maybe replaced..'

Therefore I contend that the applicant has failed to show a definitive construction method in this regard, with their survey showing to be incomplete in relation to this grid connection water crossing and cannot be seen to represent a clear representation of their intent and as such planning should be refused on said grounds.

This is all the more concerning as the Ballynaguilkee lower stream is a

5. Grounds

hydrological pathway and within the zone of influence of the river finisk [epa code 18f02] which in turn is also within the zone of influence and recognised as part of the Blackwater river special area of conservation, **SAC** are protected under the European union 'habitats directive(92/43/EEC) as implemented in Ireland by s.i. no477/2011- European communities (birds and natural habitats) regulation 2011(as amended) and part xab of the planning and development act 2000 (as amended)

The applicant clearly states, on page 4- Eiar vol iii app 9.3 aquatic survey,

'of the available fisheries data for other rivers in study area, the Finisk river is known to support Brown Trout, Atlantic Salmon, Lamprey (lampetraspp.) stone loach (barbatula barbatula), European eel and three- spined Stickleback.

I would like to bring to the boards attention the following:

LAMPREY.

1. 'All three lamprey species are listed on annex ii of the European union habitats directive (992/43/EEC). This directive legally protects each of these species in designated special areas of conservation (SAC) and requires **MONITORING AND PROTECTION OF LAMPREY SPECIES COUPLED WITH THE CONSERVATION AND MAINTENANCE OF THEIR PREFERRED HABITAT**' (9)

With the river finisk supporting lamprey and also having suitable spawning habitat sites any water quality issues associated with the grid connection construction phase at Ballynaguilkee stream lower will have the potential to impact the spawning habitat available for this protected species along the river Finisk.

5. Grounds

Atlantic salmon

2. This species is protected under the following legal instruments:

Habitat directive [92/42/EEC] Annex ii Annex iv.

Convention on the conservation of the European wildlife and natural habitats(Bern convention) appendix ii (in fresh water only)

Fisheries act 1959-2006

The habitat directive reporting for Ireland states the following;

Range = favourable;

Population = inadequate

Habitat = inadequate.

Future prospects = inadequate.

Not a great overall picture for our Atlantic salmon.

EUROUPEAN EEL.

Sadly at present the European eel is critically endangered and any further habitat loss to its fresh water environment is not something this species can endure and as the finisk river is an extension of the blackwater SAC it is protected under legal requirements of such.

I urge to board to use and apply the relevant laws that are set out to protect ALL the above species, as is Ireland's legal duty and again call for the planning application to be denied.

THE RISK TO IN- RIVER FLORA

Floating river vegetation is designated in the EU Habitats Directive 992/43/EEC) as an Annex 1 Habitat and as such, its inclusion as an annexed habitat under the EU habitats directive means there is an obligation to protect it.

In regard to floating river vegetation of the blackwater river SAC, if any adverse

5. Grounds

effects of water quality of the finisk river catchments occur (ballyguilkee stream lower), it will have the potential to result in a reduction in the extent of suitable river habitat within the blackwater river SAC to support this qualifying habitat.

As the far reaching potential environmental effects of this wind farm planning application are becoming more apparent, my doubts and concerns continue to grow should the board grant planning permission.

CUMULATIVE EFFECTS OF THE PROPOSED DEVELOPMENTS AS A WHOLE:

I ASK THE BORD TO CONSIDER THIS FOR A MOMENT: ALL OF THESE AFOREMENTIONED AND HIGHLIGHTED DOUBTS, CONCERNS AND RISKS, ARE INCLUDED IN JUST ONE ASPECT OF THE PROPOSED DEVELOPMENT – THE GRID CONNECTION. IT DOES NOT EVEN TAKE ON BOARD THE ACTUAL MAIN INDUSTRIALIZED WIND FARM SITE CONSTRUCTION OR HAUL ROUTE, WHICH IN ITSELF HAS HUGE POTENTIAL TO FURTHER INCREASE THE HAZARDOUS IMPACTS ON THE SURROUNDING UNIQUE AND VULNERABLE ENVIRONMENT WHICH INCLUDES THE DUNGARVAN HARBOUR SAP, THE BLACKWATER RIVER SAC AND ALL THE PROTECTED FLORA AND FAUNA THEREIN.

TO EXPECT THE APPLICANTS MITIGATION MEASURES TO FUNCTION AT 100% SUCESS RATE IS BEYOND BELIEVABLE AND THE PROBABLE ENVIRONMENTAL AND LEGAL REPERCUSSIONS COULD COST IRELAND DEARLY.

ON A FINAL NOTE OF IMPORTANCE AND RELEVANCE, I ASK THE BOARD TO CONSIDER THE ABILITY OF THE APPLICANT TO COMPLY FULLY AND WITHOUT DOUBT, TO ALL ASPECTS OF THE FOLLOWING STATEMENT AND TO TAKE DUE REGARD OF ALL MY AFOREMENTIONED DOUBTS, CONCERNS AND RISKS POSED BY THE COUMNAGAPPUL WIND FARM DEVELOPMENT, INTO ACCOUNT.

5. Grounds

' WITH THE OVERALL AIM OF THE EU HABITATS DIRECTIVE BEING TO MAINTAIN OR RESTORE THE FAVOURABLE CONSERVATION STATUS OF HABITATS AND SPECIES AND WITH THE FAVOURABLE CONSERVATION OF SPECIES ACHIEVED WHEN:

1. POPULATION DYNAMICS DATA ON SPECIES CONCERNED INDICATE THAT IT IS MAINTAINING ITSELF ON A LONG-TERM BASIS AS A VIABLE COMPONENT OF ITS NATURAL HABITAT AND
2. THE NATURAL RANGE OF SPECIES IS NEITHER BEING REDUCED NOR IS LIKELY TO BE REDUCED FOR THE FORESEEABLE FUTURE.

IN MY OPION THE MITIGATION MEASURES PROPOSED BY THE APPLICANT HAVE NOT SHOWN THAT THEY CAN DEFINATELY ACHIEVE THE ABOVE AND MY DOUBTS, CONCERNS AND RISKS ASSOCIATED WITH THE PROPOSED COUMNAGAPUL WIND FARM DEVELOPMENT ARE EVIDENTLY TOO BIG TO IGNORE AND IN MY OPINION A DECISION TO DENY PLANNING SHOULD BE APPLIED.

Thank you for your time and effort in reading my observation.

Regards,

FINTAN VEALE.

REFERANCES:

1. <https://www.netregs.org.uk/environmental-topics/materials-fuels-and-equipment-used-on-construction-sites/using-bentonite>
2. <https://www.researchgate.net/publication/3048188>
review of environmental issues associated with horizontal directional drilling at

5. Grounds

water crossings

3. https://gsi.geodata.gov.ie/downloads/geoheritage/reports/wd008_ballynamuck-boreholes.pdf

4 <https://trenchlesstechnology.com-challenges-associated-waterbody-crossings/>

5 <https://www.newcivilengineer.com/latest/hs2-contractors-lose-bentonite-into-aquifer>

6 <https://gsi.geodata.gov.ie/downloads/groundwater/reports/gwb/dungarvangwb.pdf>

7 <https://www.geoengineers.com/wp-content/uploads/2018/02/1h-hdd-construction-process-notes-2.pdf>

8 <https://data.gov.ie/dataset/wfd-register-of-protected-areas-ground-water-bodies-for-drinking-water-wfd-rbmp-cycle-3>

9 <https://ecofact.ie/current-projects/research/lamprey-surveys/>

Supporting materials

6. If you wish, you can include supporting materials with your observation.

Supporting materials include:

- photographs,
- plans,
- surveys,
- drawings,
- digital videos or DVDs,
- technical guidance, or
- other supporting materials.

You can insert photographs and similar items in your observation details: grounds (part 5 of this form).

If your supporting materials are physical objects, you must send them together with your observation by post or deliver it in person to our office. You cannot use the online uploader facility.

Fee

7. You **must** make sure that the correct fee is included with your observation.

Observers (except prescribed bodies)

- strategic infrastructure observation is €50.
- there is no fee for an oral hearing request

Oral hearing request

8. If you wish to request the Board to hold an oral hearing, please tick the "Yes, I wish to request an oral hearing" box below.

You can find information on how to make this request on our website or by contacting us.

If you do not wish to request an oral hearing, please tick the "No, I do not wish to request an oral hearing" box.

Yes, I wish to request an oral hearing

☐

No, I do not wish to request an oral hearing

☐

Final steps before you send us your observations

9. If you are sending us your observation using the online uploader facility, remember to save this document as a Microsoft word or PDF and title it with:

- the case number and your name, or
- the name and location of the development and your name.

This also applies to prescribed bodies sending an observation by email.

If you are sending your observation to us by post or delivering in person, remember to print off all the pages of this document and send it to us.

For Office Use Only

FEM – Received		SIDS – Processed	
Initials		Initials	
Date		Date	

Notes