

From: [Mairead Kennedy](#)
To: [SIDS](#)
Subject: Submission Report 250526 SID application with an EIAR for the proposed CWF
Date: Monday 25 May 2026 11:08:05
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Signed Submission Report.

Regards,

Mairead Kennedy

Máiread Uí Chinnéide,
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Submission Report 250526

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National Environmental Health Service Submission Report

(as a Statutory Consultee under the Planning and Development Acts 2000 (as amended) & Regulations made thereunder)

Date:	25th May 2026
Type of consultation:	Strategic Infrastructure Development (SID) accompanied by Environmental Impact Assessment Report (EIAR)
Report to:	An Coimisiún Pleanála (ACP) Email: sids@pleanala.ie
Planning Case Reference No.:	PAX91.324164 / ACP-324164-26
Our Reference No.	EHIS 5888
Applicant:	MKO Planning Consultant on behalf of Carrow Renewable Energy Limited (Ltd.)
Description of Proposed Development:	Construction of the Carrow Renewable Energy Ltd. Wind Farm (CWF) Development including 14 wind turbines with a blade tip height of 185 metres (m) and a 110kV substation including underground 110kV cabling to connect to the national grid at the existing Killonan 110kV Substation and all associated works.

Dear Sir/Madam,

Please find below the HSE submission report in relation to the above proposal.
The following HSE departments were made aware of the consultation request for the proposed
development on the 28th April 2026:

- Emergency Planning
- National Capital Estates Office
- Director of National Health Protection
- Regional Executive Officer West

1. Introduction

The HSE is a statutory consultee under Article 28 of the Planning and Development Act 2000 (as amended) and has a remit to make observations on a planning application accompanied by an EIAR with regard to any likely significant effects on Public Health. The National Environmental Health Service (NEHS) can make observations on any planning application as a statutory consultee.

The objective of any observations by the NEHS are to inform ACP on any likely significant effects on Public Health and give an opinion on any proposed mitigation to protect Public and Environmental Health. Any observations made are to inform and assist the decision making of ACP in the planning process.

The NEHS submission report is based on an assessment of documentation submitted with the planning application, particularly the accompanying EIAR.

All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate.

- No additional investigations/measurements were undertaken by the NEHS.
- This report refers only to those sections of the application documents that are relevant to the NEHS which have likely significant Environmental Health or Public Health Impact(s).

Criteria for Consideration of Likely Significant Effects on Public Health

The NEHS considers likely significant effects on Public Health as per the EPA issued National Guidance (known as the EIAR Guidance): Guidelines on the information to be contained in Environmental Impact Assessment Reports, 2022

https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Particularly section 3 of the EIAR Guidance on Human Health which is reproduced below:

Human Health

The recitals to the 1985 and 2011 Directives refer to 'Human Health' and include 'Human Beings' as the corresponding environmental factor. The 2014 Directive calls this factor 'Population and Human Health'.

While no specific guidance on the meaning of the term Human Health has been issued in the context of Directive 2014/52/EU, the same term was used in the SEA Directive (2001/42/EC). The Commission's SEA Implementation Guidance states 'The notion of human health should be considered in the context of the other issues mentioned in paragraph (f)'. (Paragraph (f)⁴⁷ lists the environmental factors including soils, water, air etc). This is consistent with the approach set out in the 2002 EPA EIS Guidelines where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water or soil, namely:

'The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment.'

In an EIAR, the assessment of impacts on population & human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.. The Advice Notes provide further discussion of how this can be addressed.

Assessment of other health & safety issues are carried out under other EU Directives, as relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives⁴⁸. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them.

The NEHS therefore considers likely significant effects within a population and Human Health context that uses a source – pathway- receptor model, based on emissions through environmental media and population exposure. The exposure of populations, if any, is then considered against recognised health protection criteria.

Whilst EIAR Guidance recognises the requirement to identify sensitive receptors within the assessment process, ACP should be clear that it is within a Population health approach.

A Population Health approach to the sensitivity of receptors would not consider individual specific sensitivity of a human receptor, but the sensitivity of the established land use or service provision. For example, a school would be considered a sensitive receptor within a Population Health approach, but an individual student who was particularly sensitive to noise attending the school would not be specifically considered in the assessment criteria. The exception would be a health care facility that provided services for people with recognised noise sensitivity would be considered in its entirety as a particular noise sensitive location.

The Population Health approach therefore has important differences in how likely significant effects on Population and Human Health are considered in EIA. The assessment should consider established land development and use and service provision and activities within communities and not individual members of communities.

It is recommended that the An Coimisiún Pleanála (ACP) also follows this method when consider Public Health in their decision-making.

The NEHS submission on the 13th May 2024 (Ref: 231102 EHS Ref: 3840) for scoping this application is still applicable even though there was a revision by the applicant on the 11th October 2024 resulting in change in the number of wind turbines from 8 to 14, resulting in SID status and this current application to ACP.

This report only comments on Environmental Health impacts of the proposed development as outlined in the EIAR and the adequacy of the EIAR from the Environmental Health viewpoint. The NEHS has made observations and submissions on the following specific environmental health areas.

- Public Consultation and the Non-Technical Summary (NTS)
- Population and Human Health including Shadow Flicker
- Noise and Vibration
- Soils and Geology
- Hydrology & Hydrogeology
- Food Safety and Environmental Compliance
- Construction Environmental Management Plan (CEMP) Appendix 4.3

The comments below are not exhaustive but serve to capture key points of the proposed development.

2. Description of the Project and Physical Environment

The applicant has submitted an EIAR on the proposed development including 14 wind turbines, 110kV underground cabling connection and all associated works in the townlands of Carrow, Moheragh, Carrowkeale, Glenpaudeen, Scarrough, Camus, Ballynahinch, Kilshenane, Dundrum, Gortarush Lower, Ballybrack, Ballysheeda, Shanaknock, Rahyvira, Newtown North, Glassdrum, Greenfield, Cappagh, Philipston, Knockane, Kilbeg, Moher East, Shanacloon, Toem, Moher West, Cahernahallia, Gortaderry, which are near the villages of Hollyford and Dundrum in Co. Tipperary.

This also includes the 110kV Grid Connection Route in the townlands of Toomaline Lower, Toomaline Upper, Doon South, Lisgaugh, Cooga Upper, Kilmoylan Lower, Cooga Lower, Darkisland, Ballycoshown, Gortavalla North, Knocknacarriga, Gortnascarry, Cappamore, Portnard, Turagh, Dromsallagh, Dromcluher, Eyon, Brittas, Gorteennaskagh, Killinure, Bohergar, Sandylane, Boher, Cloghnadromin, Lismullane, Kishyquirk, Clooncunna South, Clooncunna North, Ahabeg, Cunnihee, Whitehall, Coolyhenan, Milltown and Killonan, in Co. Limerick.

Proposed Development:

- The construction of 14 no. wind turbines with an overall turbine tip height of 185 metres; a rotor blade diameter of 163 metres; and hub height of 103.5 metres, and associated foundations and hard standing areas;
- A permanent 110kV substation compound (2 no. control buildings with welfare facilities, all associated electrical plant and equipment, security fencing, entrance on to existing track, all associated underground cabling, wastewater holding tank, site drainage and all ancillary works;
- Underground internal wind farm electrical cabling and communications cabling connecting the wind turbines to the proposed on-site 110kV electrical substation and associated ancillary works;
- A meteorological mast of 103.5m in height, and associated foundation and hard-standing area;
- All works associated with the upgrade of the existing agricultural access off the L1154 local road (including the installation of fencing and steel gates) to serve as the main site entrance for the wind farm;
- The provision of 4 no. new access/egress points along the L1154;
- The provision of 4 no. new access/egress points along the L-5117;
- The provision of 5 no. new access/egress point L-5206;
- The provision of 2 no. new access/egress points along the L-52061;
- Upgrade of existing tracks/ roads and junctions and provision of new site access roads and junctions;
- 3 no. temporary construction compounds with temporary offices and staff welfare facilities;
- Accommodation works along the public road network in the townlands of Camus, Ballynahinch, Kilshenane, Dundrum, Gortarush Lower, Carrow, Scarrough, and Moheragh, Co. Tipperary to facilitate the delivery of turbine components and other abnormal loads;
- 2 no. Borrow Pits;
- Spoil Management;
- Site Drainage;
- Tree Felling and hedgerow removal;
- Biodiversity Management and Enhancement Measures;
- Operational stage site signage;
- Battery Energy Storage System and all associated electrical plant and equipment, security fencing, 2 no. static water storage tanks and a firewater retention tank, and all associated infrastructure and apparatus;
- The provision of underground electrical (110kV) and communications cabling from the proposed on-site 110kV electrical substation to the existing Killonan 110kV electrical substation to facilitate the connection to the national grid (RPS S018);
- Provision of 58 no. joint bays, communication chambers and earth sheath links along the proposed underground electrical cabling route;
- Reinstatement of land, road and track surface above the proposed cabling trench; and
- All related site works and ancillary development considered necessary to facilitate the proposed development, including landscaping and the reinstatement of land.

A 10-year planning permission and 35-year operational life from the date of commissioning of the entire Project is being sought. The Proposed Grid Connection and onsite 110kV substation will remain in place as it will be under the ownership and control of the ESB Networks and/or EirGrid and will form a permanent part of the national electricity grid i.e. will not be decommissioned with the wind farm at the end of its operational life.

The proposed development encompasses an area of approximately 1,564ha as per Figure 1-1 of Chapter 1 of the EIAR. The Carrow Wind Farm (CWF) Boundary covers an area of approximately 830ha. The land use within the CWF is comprised of commercial forestry, agricultural pastoral land, mixed forest and transitional woodland/shrub. There are 104 properties within 1.63km (36 properties within 1km) of proposed Wind Turbines.

The land use for the Proposed Grid Connection route comprises of public road corridor, public open space, low-density residential, urban fabric, agriculture, mineral extraction, commercial forestry and mixed forest. There are approximately 761 properties located within 100m of the underground grid connection-cabling route within and around the settlements of Doon and Cappamore in County Limerick.

Land-use in the wider area of this development comprises a mix of agriculture, quarrying, low density residential, renewable energy and industrial and commercial. The construction of the whole development is estimated to take approximately 18-24 months to complete.

A full description of the Proposed Development is provided in Non-Technical Summary (NTS) and Chapter 4 in more detail.

3. Public Consultation and Non-Technical Summary (NTS)

The NEHS is satisfied that the NTS provides an adequate description of the proposed project.

The EIAR does demonstrate the link between public consultations and details how they have influenced the decision-making process in the EIA for this CWF in Co. Tipperary and Limerick. This was outlined in Chapter 2 section 2.7.2 and 2.8, Table 2.9 and Appendix 2.3 Community Engagement Report. This report is in line with the requirements as set out in the Draft Revised Wind Energy Development Guidelines (WEDG) (December 2019).

The NEHS notes that a dedicated Community Liaison Officer (CLO) is appointed for this development with dedicated CLO email address and phone number. The Public were informed of this Project via three door-to-door visits with leaflet drops to 103 homes within 1.5km radius from CWF, businesses, schools, groups and clubs within 5km of CWF received an information pack, and dedicated project website went live in August 2025. A Public Information Exhibition was held on 21st January 2026 and the public positive and negative feedback was collected and were considered in the development of the final design.

There will be a Community Benefit Fund with direct payments to houses within 1.5Km of CWF. It is NEHS perspective that this should not reduce the Public health protection measures for all those living near this proposed development.

Opportunities for Health Gain

NEHS recommends that the community fund should facilitate infrastructure for everyone and not only funding existing organizations. Consideration should be given to opportunities for health gain from the proposed development. This would include opportunities to create recreational spaces, opportunities to increase physical exercise through walking and cycle routes. Where possible, pedestrian areas should be accessible to wheelchairs, pushchairs and mobility vehicles in order that all ages and all levels of mobility can access the improved recreational amenities.

4. Population Health and Human Health including Shadow Flicker

The NEHS has considered chapter 5 of the EIAR which assesses the impacts of the Proposed Development on population and human health during the phases of Construction, Operations, maintenance and Decommissioning. The most relevant aspects highlighted draws upon findings of other chapters notable:

- Chapter 9: Hydrology and Hydrogeology Soils and Geology,
- Chapter 10: Air Quality,
- Chapter 11: Climate,
- Chapter 12: Noise and Vibration,
- Chapter 15: Material Assets.

Consideration of Population and Human Health should be done in a proportionate manner that is specific to the proposed development and any likely significant effects the proposal might have on Population Health.

Particularly:

- Any likely significant effect from exposure to noise during construction and operation,
- Any likely exposure to shadow flicker during operation,
- Any likely significant reduction in air quality during construction, particularly dust and emissions,
- Protection of ground and surface water during construction activities from contamination with hydrocarbon spillages or sedimentary run off.

It is the opinion of the NEHS that the EIA has identified these areas for assessment, and they are reported in the EIAR.

The NEHS recommends An Coimisiún Pleanála (ACP) consider Chapter 5 in the context of our previous recommendations in this submission, i.e. emissions into the environment and exposure of populations to the emissions and an evaluation against recognised health protection standards.

Shadow Flicker

In Chapter 5 section 5.9.1 of the EIAR states there are *"73 no. sensitive receptors are theoretically predicted to experience some shadow flicker; Of these, 42 no. sensitive receptors are theoretically predicted to experience shadow flicker that exceeds the DoEHLG 2006 Guideline' thresholds for daily and/or annual shadow flicker."* In section 5.9.2, figure 5-8 and table 5-10 it states there are *"7 no. properties have the potential to experience cumulative shadow flicker impacts, when the operational Glencarbry and operational Glenough wind farms are assessed alongside the Proposed Wind Farm."*

The NEHS notes from section 5.2.5.9 that there is flexibility on the applicant to comply with no shadow flicker condition in the Draft Revised Wind Energy Development Guidelines (WEDG) 2019 by the Department of Housing, Planning and Local Government (DoHPLG) when they are adopted by using stricter mitigation measures in section 5.10.3.2.7.

NEHS recognises that the applicant is currently utilising part of Draft (WEDG) 2019 as stated in section 5.3.1 and illustrated in figure 5-7 “*All sensitive receptors are located at or over the recommended 4 x tip height setback (740m) from properties not involved in the project (as recommended in the Draft DoHPLG 2019 Guidelines.*”

NEHS reviewed section 5.10.3.2.7, Mitigation Measure (MM) 32 in Chapter 18 and Appendix 4-3 CEMP and recommends that the section titled “*Screening Measures*” and the line in section “*Wind Turbine Control Measures*” “*which are not naturally screened nor can be screened in any other manner.*” are removed.

This MM32 is placing the onus onto the property owner of the sensitive receptor to allow CWF to install window blinds, screening vegetation or other site –specific measures even though the full costs will be borne by the wind farm operator. The applicant proposes to use the screening measures first before utilizing the wind farm’s SCADA control system.

The draft (WEDG) 2019 Guidelines is still available on the Department’s website as of the date of this submission.

The draft 2019 Guidelines proposed a planning condition of:

The adopted DoEHILG 2006 Guidelines are currently under review. The Draft DoEHILG 2019 Guidelines recommend local planning authorities and/or An Bord Pleanála impose conditions to ensure that:

“no existing dwelling or other affected property will experience shadow flicker as a result of the wind energy development subject of the planning application and the wind energy development shall be installed and operated in accordance with the shadow flicker study submitted to accompany the planning application including any mitigation measures required.”

The Draft DoEHILG 2019 Guidelines are based on the recommendations set out in the ‘*Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review*’ (December 2013) and the ‘*Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach*’ (June 2017).

In the interest of the protection of Public Health the condition in the Draft (WEDG) 2019 Guidelines should be implemented if consent is given for the development. The technology has advance since the publication of the 2006 Guidance and it is a reasonable health protection measure to be included in any conditioning of a wind farm development. The mitigation measures that will eliminate exposure to shadow flicker are technologically robust and established. This mitigation measure should be implemented irrespective of whether the current guidance is updated.

5. Noise and Vibration

Project Specific Guidance for Wind Energy Development

The current Guidelines for Wind Energy Development (GWED) are: Wind Energy Development Guidelines (2006) <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

It is recognised that the nature of wind energy development has significantly changed since the publication of these Guidelines. Particularly the size of the turbines and the proximity to centres of populations and the cumulative effects with other wind energy development.

A revision of the 2006 GWED commenced in 2013 and Draft Revised Wind Energy Development Guidelines (WEDG) were issued in December 2019.

<https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/> These are yet to be adopted.

The draft Revised WEDG 2019 states '*the revised guidelines will provide greater consistency of approach in planning for onshore wind energy development, as well as providing greater certainty and clarity to the planning system, to the wind industry and to local communities.*'

The NEHS would consider the most appropriate criteria for assessing significance of the predicted noise would be consideration of the ENVIRONMENTAL NOISE GUIDELINES for the European Region, 2018 The 2018 WHO Guidance set health protection levels from environmental noise. <https://iris.who.int/bitstream/handle/10665/279952/9789289053563-eng.pdf?sequence=1>

The NEHS is aware of the High Court decision in ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024***, and details of the judgement. The judgement that the noise from the wind farm was a Private Nuisance is a predominately health based assessment, in that the elements that were deemed to create the nuisance were directly related to health effects on the complainants. It is the understanding of the NEHS that assessment of compliance with health protection conditions set in the consent process was not a material consideration in the judgement. The judge did state that she could consider nuisance irrespective of any compliance with consent conditions, particularly in the absence of up to date national Policy and Guidance in the area. The Draft 2019 (WEDG) Guidelines is still on the Department's website as of the date of this submission.

Nuisance from noise is fundamentally a subjective assessment based on 'reasonable' perception and reaction of the effects of the noise exposure. This perception and reaction depends on situational specific conditions and land use. This was recognised in the Judgement after 51 days of evidence and consideration of the specific facts. It also the understanding of the NEHS that the Judgement did not make an order as to the level or characteristic of the noise that would abate the nuisance.

If ACP are now considering that they are under a duty to incorporate the likelihood of a Private Nuisance into their decision making, then they should consider the judgement in ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024***. This judgement identified, in the absence of Irish Guidance, the usefulness of UK Guidance in the investigation of wind farm noise as a statutory nuisance. This is, of course, a reactionary methodology where specific noise exposure is known and not a predictive methodology for the likelihood of a Private Nuisance.

https://docs.wind-watch.org/IRE-2024_IEHC_136.pdf

<https://assets.publishing.service.gov.uk/media/5a795184e5274a3864fd5f82/pb-13584-windfarm-noise-statutory-nuisance.pdf>

NEHS notes the most recent development in the Case below.

Nagle View Turbine Aware Group v An Bord Pleanála, and Coom Green Energy Park Limited (2024 IEHC 603) 1st November 2024. The Office of Planning Regulator key takeaways on page 20 included the below screen shot:

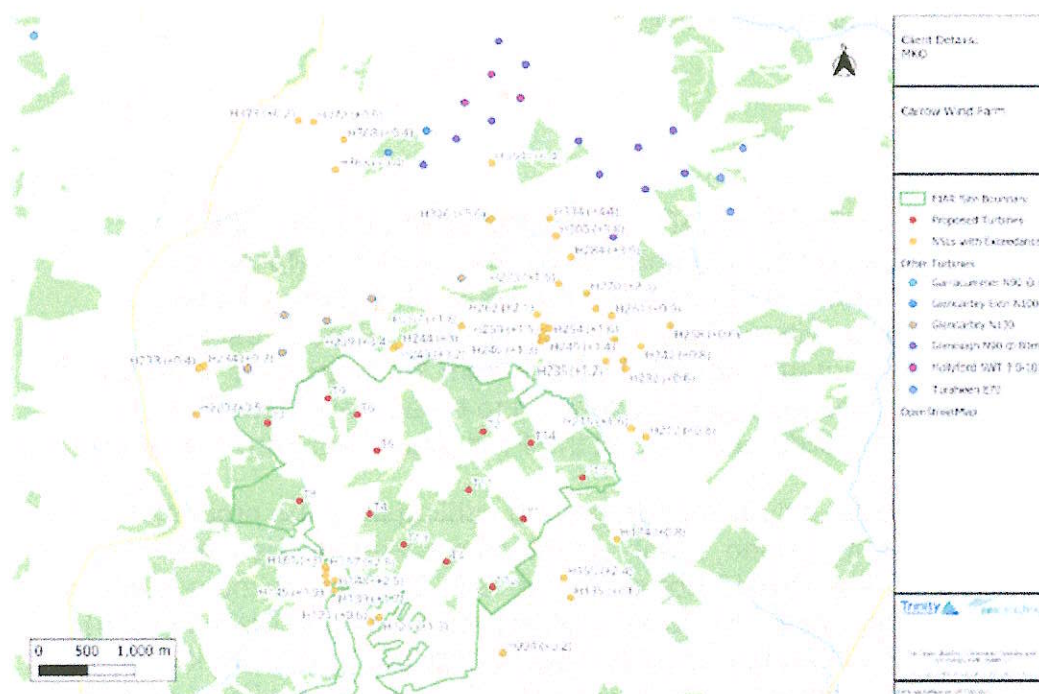
- In the context of Section 28 guidelines, it is in principle lawful to have regard to draft guidelines as part of the evolving scientific context or in "illuminating what amounts to best practice", particularly where the extant guidelines are potentially viewed as outdated.

https://publications.opr.ie/storage/publications/HKpLQPHtDmvqiveTUIpHqYeoNVmt99rqGKgEAI2J.pdf?_gl=1*1uukl22*_ga*MjA0MTE1MDM0Ny4xNzcwNzI1OTAx*_ga_J58VT3XFH2*_czE3NzA3MjU5MDAkbzEkZzEkdDE3NzA3MjYxMDgkajQzJGwwJGgw

The impacts of CWF and Grid Connection route during construction and operation are addressed in Chapter 12 of the EIAR. Whilst section 12.2.2.2.1 of the EIAR does not accept the above position of the NEHS, the use of the 2006 Guidance with regards to noise exposure, and in particular the 'balance between development and protection of public health' stated in ETSU R-97 are resulting in a significant volume of complaints from communities exposed to noise from wind turbines post development. This position that the absolute noise exposure limits set in the 2006 Guidance do not necessarily protect Public Health in specific development situations is now supported by Judgements of the Irish Courts, as reference previously in this submission.

In section 12.5.3.1 and figure 12-4 states that the noise levels at the proposed wind farm are exceeded at 49 locations particularly with exceedances at 6 m/s displayed at each Noise-Sensitive Location (NSL).

Figure 12-4 NSLs with exceedances at 6 m/s wind speed



NEHS reviewed the proposed mitigation measures in section 12.6.2.1.1 for construction and section 12.6.2.1.3 for operational phase along with Chapter 18

If consent is given for this development the mitigation measure (MM) such as a noise curtailment strategy i.e. MM94-97, and MX26 should be made a condition of

the consent for all phases i.e. construction, operation, maintenance and decommissioning phases. Particularly to prevent sleep disturbance. This recommendation is made in the interest of protecting Public Health.

Observations (Construction Noise)

The NEHS recommend that operating times during the construction phase are limited as follows in order to minimise the impact of noise on residents. It is advised that the applicant should not operate outside these time limits unless absolutely necessary and with prior approval from the Planning Authority.

- **Monday to Friday 07:00 – 19:00**
- **Saturday 08:00 – 13:00**
- **Sundays and Public Holidays - No noisy operations on site.**
- **Exceptionally work outside these hours must have permission from Tipperary and/or Limerick Planning Authority.**

Rock Breaking/Blasting

It is noted in sections 12.5.2.1.2, 12.5.2.4 and 12.6.1.1 that Rock breaking and blasting is expected at the proposed borrow pits locations or other locations across the Site. The NEHS recommends to minimise noise-travel, such as the construction of berms/mounds, to absorb noise or deflect noise away from receptors. Rock blasting must follow in line with Guidance on the Safe Use of Explosives in Quarries (Safety and Health Commission for the Mining and Other Extractive Industries, 2002) and the British Standard BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Noise.

6. Soils and Geology

The NEHS has considered chapter 8 of the EIAR. The Proposed Wind Farm Site is located in an upland setting on the southern foothills of the Mauherslieve Mountains, which is hilly ~376m OD on the north to ~163m OD on the south. It is mainly within coniferous forestry plantations along with agricultural pastoral land, mixed forest and transitional woodland-shrub. The average depth of bedrock from 18 locations is 1.8m and maximum excavation depth at turbine locations is expected to be approximately 3m. Overall risk of ground instability/landslide occurring at the Proposed Wind Farm site is low.

The Proposed Grid connection route including underground cabling from the proposed 110kV substation setting is in poorly drained, rough grassland pastures and is primarily located within the public road corridor. NEHS notes that the Grid Connection route is not expected to interact with underlying bedrock due to shallow nature cable trenching (1.2m). There is no bog within the Site. The Turbine Delivery Routes from the Port of Cork (Ringaskiddy) will require along 8 temporary which are along Regional Road R505 and local road L1283.

In section 8.6 details the likely significant effects and associated mitigation measures. The main concerns from Public Health perspective is soil and ground contamination e.g. contaminated by tar, hydrocarbons, accumulation of spills of fuels, lubricants on plant/vehicles and oil used to cool the transformer(s) in the substation and in each turbine,

and the potential risk of fires at the Battery Energy Storage System (BESS) compound. As the Proposed Wind Farm is along the Aughnaglanny and Multeen Rivers and the Proposed Grid Connection route is along Lower River Shannon and crosses Cahernahallia, Bilboa, and Mulkear Rivers via existing road and bridge structures.

In NEHS recommend strict adherence to the CEMP, with emphasis on the below main elements in the proposed mitigation measures in section 8.6. These should be included as a condition of consent.

- 110% bunded capacity in all fuel, storage areas, BESS, all transformers and substation areas,
- Interceptor drains/traps,
- CEMP and
- Appendix 4-4 Fire Risk Management & Emergency Response Plan

NEHS recommends if consent is given for this development the mitigation measures described above and in more detail in Chapter 8 section 8.6 on Soils and Geology and CEMP are adopted for construction and operations phases should be included as a condition of consent.

7. Hydrology & Hydrogeology

The NEHS has considered chapter 9 of the EIAR which sets out to assess the potential impacts of the development on the water environment (surface and groundwater).

In section 9 of NTS states the following: *The primary risk to groundwater at the site would be from hydrocarbon spillage and leakages at the borrow pits. Two methods will be employed to control drainage water within the site during construction. During the construction phase all runoff will be treated to a high quality prior to being released. A self-imposed 50m stream buffer was used during the layout of the Proposed Wind Farm development site, thereby avoiding sensitive hydrological features. the Proposed Wind Farm infrastructure does not encroach fluvial flood zones. A site-specific Flood Risk Assessment was carried out for the Proposed Project."*

While no direct human health impacts are anticipated, there is potential for indirect effects during construction through sediment runoff, spills, or disturbance of drainage pathways.

The NEHS recommends strict adherence to the CEMP and mitigation measures in section 9.5 of Chapter 9, with particular emphasis on:

- **Surface water protection,**
- **Spill prevention and,**
- **Management of excavated material.**

8. Food Safety and Environmental Compliance

The development itself will bring level of employment in the construction phase. Should welfare facilities in any of the temporary construction compounds become a commercial kitchen/canteen or food preparation area, then it operates as a food business. The NEHS require that registration be undertaken in accordance with Article 6(2) of Regulation (EC) No. 852/2004, and that early engagement with the appropriate registering authority be undertaken to ensure compliance with food hygiene legislation.

Where smoking shelter(s) are provided if any within temporary construction compounds, they shall comply with Section 47 of the Public Health (Tobacco) Act 2004 (as amended).

NEHS recommends that early engagement with the appropriate registering authority is undertaken to ensure compliance with Tobacco legislation.

9. Construction Environmental Management Plan (CEMP)

The NEHS has considered the CEMP and is of the opinion that here will be adequate protection of Public and Environmental Health during the construction phase providing:

- The mitigation and controls are implemented in full.
- The effectiveness of environmental controls are monitored and reviewed and increased mitigation/corrective action is taken where required.
- All drinking water and water used for the preparation of food in the temporary construction compounds should meet the requirements of S.I. No. 99/2023 - European Union (Drinking Water) Regulations 2023 (as amended).
- There should be no direct emission to ground or surface water of any foul waste water. All waste water should be contained and taken off site to a licensed treatment facility.
- Site drainage should ensure the protection of surface and ground water during the construction phase.
- The dust monitoring is a monthly average standard. Compliance with standard can incorporate short periods of very high levels of dust deposition followed by low levels and still be compliant. It is therefore important that dust minimisation is continually implemented and any complaints are investigated and responded to.
- A pest/vector management control plan should be developed into a specific pest/vector management programme for protection of nearby sensitive receptors. Construction activities should ensure that drains and sewers are not damaged or left open, in order to prevent rodent access and infestation.

10. Recommendations

Should permission be granted for the proposed development, the NEHS makes the following recommendations:

- The condition in the Draft (WEDG) 2019 Guidelines i.e. no Shadow flicker, should be implemented if consent is given for the development.
- A noise curtailment strategy and MM94-97, and MX26 from CEMP should be made condition's of the consent for all phases i.e. construction, operation, maintenance and decommissioning phases.
- The applicant should not operate outside these time limits unless absolutely necessary and with prior approval from the Tipperary and Limerick Planning Authority. Particularly to prevent sleep disturbance.
 - **Monday to Friday 07:00 – 19:00**
 - **Saturday 08:00 – 13:00**
 - **Sundays and Public Holidays - No noisy operations on site.**
- In relation to rock breaking/blasting recommend to minimise noise-travel, such as the construction of berms/mounds, to absorb noise or deflect noise away from receptors.

- The mitigation measures described in section 8.6 of Chapter 8 on Soils and Geology and CEMP should be adopted for all stages i.e. construction operation and decommission phases, and be included as a condition of consent.
- The mitigation measures described in section 9.5 of Chapter 9 on Hydrology & Hydrogeology and CEMP should be adopted for all stages i.e. construction operation and decommission phases, and be included as a condition of consent.
- CEMP mitigation and controls are implemented in full, and be included as a condition of consent, especially a pest/vector management control plan.
- Compliance with food safety legislation where applicable (Regulation (EC) No. 852/2004) and that early engagement with the appropriate registering authority be undertaken for any temporary smoking facilities on site to ensure compliance with food hygiene legislation.
- Compliance with tobacco legislation with Section 47 of the Public Health (Tobacco) Act 2004 where applicable for any temporary smoking facilities on site.

If you have any queries regarding this submission, the initial contact is Anne Moriarty Principal Environmental Health Officer who will refer your query to the appropriate person.

Yours Sincerely,

pp Aileen Cleary, SEHO

Anne Moriarty

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