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The Offices of An Coimisiún Pleanála (ACP)
64 Marlborough Street,
Dublin 1, D01 V902.
Email: sids@pleanala.ie

Date: 8th April 2026

Re: Strategic Infrastructure Development (SID) accompanied by Environmental Impact Assessment Report (EIAR) proposed Carrigeen Renewable Energy Development including 11 wind turbines and other associated works

Planning Case Reference: PAX20.324167 / ACP-324167-26

EHIS Reference: 5814

Applicant: Carraigín Power Ltd.

Proposed Development:

- 11 no. Wind Turbines with an overall turbine tip height of 185m, turbine hub height of 103.5m, and rotor blade diameter of 163m, a meteorological mast with a height of 30 metres, and associated foundations and hardstanding areas, and subsequent decommissioning of the wind turbines and meteorological mast, following a thirty five year operational life from the date of full commissioning of the wind turbines;
- A 110kV substation compound (Including control buildings (591 Sq. m) with welfare facilities, all associated electrical plant and apparatus, security fencing, underground cabling, storage containers, underground wastewater holding tank, site drainage and all ancillary works);
- Underground electrical (110kV) and communications cabling from the proposed 110kV Onsite Substation to the existing Flagford 220kV substation in the townland of Flagford (including joint bays, communication chambers, earth sheath links, and ancillary works along the underground electrical cabling route). This cabling route is primarily located within the public road corridor;
- Underground electrical (33kV) and communications cabling connecting the Wind Turbines and meteorological mast to the proposed 110kV Onsite Substation;
- 6 no. Temporary Construction Compounds (including site offices and welfare facilities (with a floor area of 405 Sq. m));
- Junction accommodation works to facilitate turbine delivery and construction access to the Wind Farm Site, including the upgrade of an existing site entrances off the N5 national road, and the construction of new site access roads off the L-1217 and L-56421 local roads;



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- Upgrade of existing Site Access Roads and provision of new Site Access Roads, junctions and hardstand areas (including upgrade of 3.6km of the L-1217, 660m of the L-56402, 360m of the L-5642, 480m of the L-56421, 210m of the L-56492 and 85m of the L-56491 local roads);
- 2 no. Borrow Pits;
- Peat & Spoil Management;
- Site Drainage;
- Tree felling (c.43.7 ha) and vegetation removal;
- Operational stage site signage;
- Biodiversity Enhancement measures and;
- All ancillary works and apparatus.

A 10-year planning permission and 35-year operational life from the date of commissioning of the entire Project is being sought. The Onsite Substation and Grid Connection will be under the ownership of ESB Networks and will form a permanent part of the national grid infrastructure, which will not be decommissioned with the wind farm at the end of its operational life.

Dear Sir/Madam

Please find enclosed the HSE consultation report in respect of the above proposal. If you have any queries regarding this report, the initial point of contact is PEHO, details below.

Yours faithfully,

Declan Roe
Príomhoifigeach Sláinte Comhshaoil
Principal Environmental Health Officer
Comhshaoil Aonad Tacaíochta Líonra
Environment Network Support Unit
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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:	8 th April 2026
Type of consultation:	SID accompanied by EIAR
Planning Case Reference No.:	PAX20.324167 / ACP-324167-26
Our Reference No.	EHIS 5814
Applicant:	Carraigin Power Ltd
Description of Proposed Development:	Construction of the Carrigeen Renewable Energy Development Windfarm 2026 (CWF) of eleven (11) wind turbines, Turbine Foundations, Turbine Hardstands, Site Access Roads, a Permanent Met Mast, Onsite Substation, Internal Cabling, Temporary Construction Compounds, Grid Connection and all ancillary and associated works in County Roscommon

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 31st March 2026:

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



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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).

Site Visit

A visit to the site of the proposed development was carried out by Local Environmental Health Roscommon office by Ms Siobhán Callaghan Senior Environmental Health Officer (SEHO) on the 30th April 2026. A review of the application, a review of the National Environmental Health Information System (EHIS) and a review of Roscommon CoCo Planning portal was also carried out. The following observations were made:

Farming, wetland /peatland and forestry are the main activities in the area. Forestry felling is currently underway along the townlands of Ballyroddy, Kilnamryall, Edenan and Kinclare, along the narrow secondary roads with damage to verge of road in this area, likely from heavy vehicles, south of T10 and T11.

No apparent objections to the proposed development were noted, insofar as no signage was observed in the vicinity. At this time, no complaints have been logged on National EHIS. Not aware of any recent refusal of planning permission in the vicinity.

Some residences located in close proximity to proposed turbines, e.g. House located at proposed entrance along L1217, NE of T04. Anecdotal evidence of local concerns relate about the height of the proposed turbines and their possible impact to neighbouring properties.

It appears from local media that a public information evening was held at a local venue to provide information and answer questions on 6th November 2025.



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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



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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 17th April 2025 (Ref: 6575 EHIS Ref: 4724) for scoping this application is still applicable.

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
- Noise and Vibration
- Soils and Geology
- Hydrology & Hydrogeology
- Shadow Flicker
- Food Safety and Environmental Compliance
- Construction Environmental Management Plan (CEMP)

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 of an eleven (11) wind turbines CWF, ancillary and associated works in the townlands of Leggatinty, Carrigeenacreeha, Ballynahowna, Caranlea, Killummod, Culleenatreen or Flagford, Cartroncaran, Lodge, Carrigeen, Ballaghcullia, Ballindrehid, Corbally East, Peak, Gortnacloy, Tonaknick, Ballysundrivan, Caran, Cloonkerin, Carrowntogher, Corbally Middle, Ballyroddy, Cloonshanville, Skeanavart, Dacklin, Kinclare, Erriblagh, Lisgarve, Loughbally, Rathardeagher, Carrigeenynaghtan, Brackloon, Edenan and Kinclare, Kilnamryall, Corbally West, Cartroncarrarowntogher, Carrowncaran in County Roscommon.



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The EIAR Boundary covers an area of approximately 1040ha. The land use within the CWF is comprised of agricultural pasture grazing land, commercial forestry and peat harvesting. There are 196 houses within 2km (39 houses are within 1km) of the proposed Wind Turbines (T). This excludes 1 No. house, H001 a derelict house located 230m from T10. The construction of CWF is estimated to take approximately 18-24 months to complete. A full description of the Proposed Development is provided in Chapter 2 section 2.2 and summarised version is included in the above cover letter.

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

The EIAR does demonstrate the link between public consultations and how those consultations have influenced the decision-making process in the EIA, this was outlined in Chapter 1 section 1.11, Table 1.6, Appendix 1.4, section 1.7.1 and the Community Engagement Report in Appendix 1.2.

The Public were informed of this Project via letters and dedicated project website in January and July of 2025. A Public Information Exhibition was held on 6th November 2025 and further project letters were distributed in March 2026.

NEHS notes the following per section 3.3.3 in Appendix 1.2 of EIAR that there will be:

“Direct Payments - to those living closest to the wind farm. A minimum €1,000 payment per annum for houses within 1km of the Proposed Project. Further payments to those living within 1-2km of the Proposed Project will be made using the remaining fund with Direct Payments capped at 50%.”

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.

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



4. Population Health and Human Health

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 10: Soils and Geology,
- Chapter 11: Hydrology and Hydrogeology,
- Chapter 13: Noise,
- Chapter 16: Traffic and Transport,
- Chapter 17: Shadow Flicker,
- Chapter 18: Air Quality,
- Chapter 19: Climate,
- Chapter 20: Major Accidents and Natural Disasters.
- Chapter 21: Interactions of the Foregoing

NEHS noticed that there was very little on the subject of Climate Change found within this chapter 5. This is notable from a public health point of view as Climate Change is widely regarded by the World Health Organisation as the greatest threat to global health this century. The mitigation of green-house gas emissions (GHGs) is a vital part of protecting human populations at the local and global level due to the transboundary nature of climate change.

Reference to the Healthy Ireland Framework could not be found in this chapter 5, for which everyone has a responsibility to embed the vision of a healthy Ireland into their developments. No reference either was found to the Sustainable Development Goals (SDGs) all of which contribute to the delivery of SDG 3 "*Ensure healthy lives and promote well-being for all at all ages.*"

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.



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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.

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 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



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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 Guidance 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 included the following:

"in the context of Section 28 Guidelines for Wind Energy Development (2006), that 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 existing guidelines are potentially viewed as outdated."

https://publications.opr.ie/storage/publications/HKpLQPhtDmqiveTUlpHqYeoNVmt99rqGKgEai2J.pdf?_gl=1*1uukl22*_ga*MjA0MTE1MDM0Ny4xNzcwNzI1OTAx*_ga_J58VT3XFH2*_czE3NzA3MjU5MDAkbzEkZzEkdDE3NzA3MjYxMDgkajQzJGwwJGgw

The impacts of this development during construction and operation are addressed in Chapter 13 of the EIAR. Whilst section 13.2.3.4 of the EIAR does not accept the above position of the NEHS, the use of the 2006 Guidance with



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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.

The Roscommon County Noise Action Plan 2024 – 2028 is in line with Draft Revised Wind Energy Development Guidelines 2019 stating the following:

"a relative rated noise limit of 5dB(A) above existing background noise within the range of 35 to 43dB(A) for both day and night, with 43dB(A) being the maximum noise limit permitted."

In section 13.3.6 of the EIAR Noise limits "where receptors are financially involved a 45 dBA limit can be applied". NEHS notes that there are 2 properties H1 and H3 that are financially involved with this development. NEHS notes that Appendix 13.7 refers only "to a noise complaint is associated with Amplitude Modulation (AM) and/or tonality arising from operation of the project." This appendix 13.7 is linked to CEMP plan 6 Decommission phase section 3.4 and does not include mitigation measures for construction and operational phases. NEHS considered Chapter 22 schedule of mitigation measures and noted that it provided little information on noise mitigation it stated "General guidance for controlling construction noise through the use of good practice given in BS 5228 will be followed." It is in NEHS opinion that public health protection levels should not be dependent on any legal and/or financial interest in lands.

If consent is given for this development the mitigation measure such as a noise curtailment strategy 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.**

Rock Breaking

It is noted in section 13.4.1.2 that Rock breaking is expected and the “*maximum noise levels will persist for no more than 4 hours at any receptor.*” The NEHS recommends to minimise noise-travel, such as the construction of berms/mounds, to absorb noise or deflect noise away from receptors.

6. Soils and Geology

The NEHS has considered chapter 10 of the EIAR. The EIAR indicates that the worst-case scenarios are a Peat landslide, Ground Stability and Failure, Soil and Water contamination, Hydrocarbons spills under the following key areas in section 10.1.2 “*Development Description*”:

- Wind Farm Site
- Land Take
- Forestry Felling – “*c. 43.9 ha of commercial coniferous forestry will need to be clear-felled*”
- Five Site Entrances
- Construction Haul Route
- Turbine Delivery Route (TDR)
- Grid Connection (GC)
- Two Borrow Pits
- Six Temporary Construction Compounds
- Spoil Management

According to section, 10.3.6.1 Peat Depths a Peat Landslide Hazard Assessment (PLHA) was carried out for the site and it was noted in Table 10.7 below that peat depth category B was likely sufficient to influence ground stability.

Table 10.7: Peat Depth Distribution by Category

Peat Depth Category (m)	Number of Survey Points	Sufficient to influence ground stability
A – Absent or Negligible (0-0.5m)	1069 (44.8%)	Unlikely
B – Shallow (0.5-2.0m)	605 (25.3%)	Likely
C – Moderately Deep (2.0-3.0m)	263 (11.0%)	Very likely
D – Deep (3.0-4.0m)	132 (5.5%)	Very likely
E – Very Deep (>4.0m)	318 (13.3%)	Very likely

The PLHA determined that peat landslide hazard is moderate without mitigation measures. The below sections of Chapter 10 for Construction and operational



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phases of the development are all considered likely significant without mitigation.

- 10.4.2.3.1 Excavations – *“Processes such as soil instability, poor spoil handling, compaction and subsidence brought about by earthworks activities, can cause a release of silt into the environment, which can adversely affect local (and potentially regional) sensitive receptors, such as watercourses”*
- 10.4.2.3.2 Site Access Roads - *“the effects associated with general excavation works are considered to be Long-term, Adverse and Significant.*
- 10.4.2.3.3.1 Bedrock Excavations at Turbine Foundations
- 10.4.2.6 Peat Landslide Hazard, Ground Stability and Failure
- 10.4.2.7 Soil Contamination
- 10.4.2.7.2 & 10.4.3.3.1 Hydrocarbons and Chemicals

Section 10.5.2.3 of the chapter details Avoidance, Good Practices, Reduction and Reuse Mitigation Measures for each phase of the development with much of the measures listed in the below sections:

- Table 10.24: Peat Landslide Hazard – Specific Mitigation Measures
- Appendix 10.3: Soils & Geology Assessment, Peat Landslide Hazard Risk Assessment Part I including Appendix E Peat Slide Risk Assessment –“Preventative Action: A Guide for Workers”
- An emergency plan (refer to CEMP, Management Plan 1)
- Soil Management plan (refer to CEMP, Management Plan 4)
- Chapter 22 -Table 22.1 Summary of Mitigation Measures

NEHS recommends if consent is given for this development the mitigation measures described above in Chapter 10 on Soils and Geology and CEMP are adopted for construction and operations phases should be included as a condition of consent.

7. Hydrology & Hydrogeology

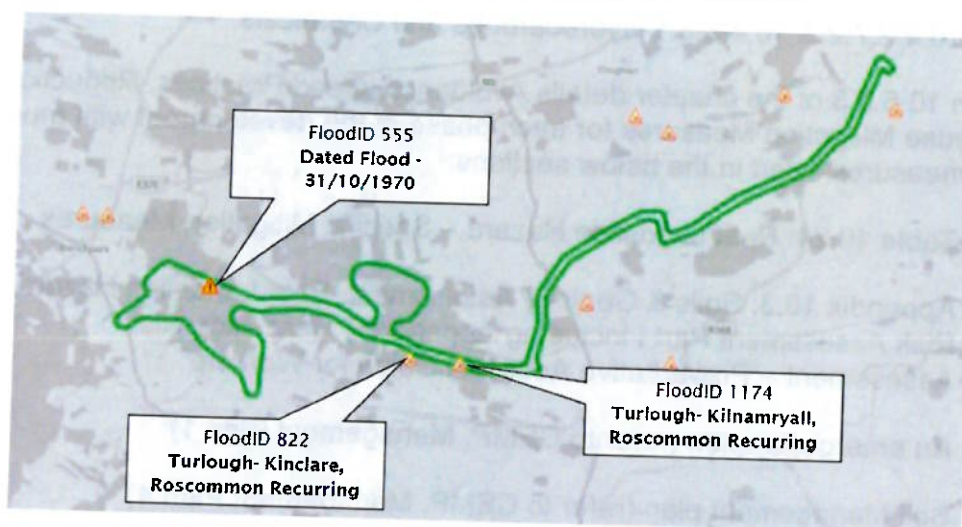
The NEHS has considered chapter 11 of the EIAR which sets out to assess the potential impacts of the development on the water environment (surface and groundwater).

NEHS noted in section 11.4.9 that there are 12 no. properties were identified with unregistered water supplies within the screening extent, except for 3 no. properties that Uisce Éireann mains supplies are noted and 2 no. properties are derelict. Out of the 12 no., 6 no. properties are involved with the Project.

All water features drain to the following Carricknabraher, Owennaforeesha, and Mantua Rivers. The range from 'Low' to 'Extremely High' of Groundwater Vulnerability is illustrated in Figure 11.11 and Figure 11.12 shows 5 no. karst features including 3 enclosed depressions, Swallow Hole, Turlough and a Sinkhole. In Appendix 11.1 Flood Risk Assessment (FRA) in section, 3.3.1 of also includes OPW past flood events in Figure 1.3 see below.

- A historic flood event was reported at **Loughbally, Roscommon on 31st October 1970 (Flood ID 555)**, at the Loughbally Bridge (at the time called the "Metal Bridge") from the Breegogue River. The County Engineer noted that "for the last ten days the whole area has been flooded. The road from Frenchpark to Matua has been blocked by water, and it has been impossible to use the road due to the volume of water covering it at the bridge—popularly known as the Metal Bridge".
- The recurring flood events at **Kinclare and Kilnamryall (Flood IDs 822 & 1174)** are associated with GSI Turlough Data, dated 14th April 2005.

Figure 3.1: OPW Past Flood Event Mapping (floodinfo.ie)



In section 11.6.1.4 of EIAR the majority of the proposed Site Access Roads are sited in Flood Zone C, with the exception of where watercourses are required to be crossed to provide access, one Site Access Road within the western section of the Wind Farm Site is proposed in Flood Zone A and Flood Zone B. The FRA in Appendix 11.1 defines the three flood zones as:



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Policy objectives applicable to the Study Area are set out in the *Roscommon County Development Plan (CDP) 2022-2028* per the Strategic Flood Risk Assessment undertaken to inform this plan (Roscommon SFRA). The SFRA was prepared in accordance with the requirements of the OPW Guidelines and therefore adopts the same 'Flood Zone' standard.

Flood Zones are the extents associated with particular design flood events and are used to determine the suitability of development from a flood risk point of view. They are defined in both the SFRA and OPW Guidelines as follows:

- **Flood Zone A** - where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding).
- **Flood Zone B** - where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 year and 0.5% or 1 in 200 for coastal flooding).
- **Flood Zone C** - where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding).

The OPW Guidelines specify that **Flood Zones** should be derived from 'present day' hydrological estimates without taking account of flood defences, and that proposed developments should be designed to be resilient to the effects of climate change.

Other risks to groundwater was included in the NTS such as oil spillage and leakages at turbine foundations or during construction plant refuelling along with risk from piling works at Turbine Foundations T1 and T3.

Mitigation measures

In the summary section 5.1 of the FRA "determined that fluvial flooding is the only potentially significant flood mechanism affecting the Project." The mitigation measures includes Flood Management plan in section 5.3 of FRA along with a justification test in section 5.5 as some parts of the development is located in Flood Zone A.

NEHS notes that section 11.6 details avoidance measures, conservative buffer zones in Table 11.5 below, and sections 11.8, 11.9 and 11.10 includes additional mitigation measures for construction, operational and decommission phases.

Table 11.15: Minimum Adopted Hydrological Buffer Zones

Water Features	Width of Adopted Buffer
Major Watercourses (catchment >0.25 km ²)	50m
Minor Watercourses (catchment <0.25 km ²)	10m
Other Drainage Features	Managed on-site by diversion / temporary blocking in accordance with GGPs and PPGs.

Other key documents with mitigation measures include:

- Appendix 11.2: Surface Water Management Plan (refer to CEMP, Management Plan 3)
- Water Quality Monitoring Plan (refer to CEMP Plan 2)



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- Chapter 22 - Table 22.1 Summary of Mitigation Measures

NEHS recommends if consent is given for this development the mitigation measures described above in Chapter 11 on Hydrology & Hydrogeology and CEMP are adopted for construction, operations and decommission phases should be included as a condition of consent.

Shadow Flicker

The NEHS has considered chapter 17 of the EIAR. The applicant has advised in section 17.2.7 of Chapter 17 of the EIAR states "from Table 17.4, there is the potential for 117 sensitive receptors out of 145 to experience some degree of shadow flicker." Some of the sensitive receptors were ruled out. In Table 17.5 of EIAR states there are "39 sensitive receptors".

The NEHS notes from Chapter 17 section 17.2.9.3 of EIAR that there is flexibility on the applicant ability to utilise shadow flicker control system technology to comply with the 2006 WEDGs and if the draft 2019 Guidelines are adopted to comply with no shadow flicker condition proposed in the draft 2019 Guidelines. In Chapter 5 section 5.4.6.2. states the following: "The implementation of mitigation to cease operation of the turbines during periods of potential shadow flicker will ensure that shadow flicker effects do not exceed the 2006 or draft 2019 Guidelines at any sensitive receptor within the Study Area."

The draft 2019 Guidelines proposed a planning condition of:

The adopted DoEHG 2006 Guidelines are currently under review. The Draft DoEHG 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 DoEHG 2019 Guidelines are based on the recommendations set out in the 'Proposed Revisions to Wind Energy Development Guidelines 2006 - Targeted Review' (December 2011) 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 proposed condition in the 2019 Draft Guidance should be implemented if consent is given for the development. The technology has advanced 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 should be implemented irrespective of whether the current guidance is updated.



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If consent is given for this development, the NEHS recommends following Mitigation Measures (MM) MM88 from Chapter 22, should be made a condition of the consent.

8. Food Safety and Environmental Compliance

The development itself will bring level of employment approximately 80-100 persons in construction phase. The operation of the site will have 21 full time jobs. Should any of the 6 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.

NEHS notes as per drawings Drawing No. 6575-JOD-CGWF-XX-DR-C-0801 to Drawing No. 6575-JOD-CGWF-XX-DR-C-0805 that there are smoking shelters in the layout of the six temporary construction compounds. These must be in compliance Section 47 of the Public Health (Tobacco) Act 2004 (as amended). NEHS recommends that early engagement with the appropriate registering authority be 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



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important that dust minimisation is continually implemented and any complaints are investigated and responded to.

10. Recommendations

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

- During construction phase a noise curtailment strategy should be made a condition of the consent.
- The applicant should not operate outside these time limits unless absolutely necessary and with prior approval from the Roscommon 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 recommends 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 Chapter 10 on Soils and Geology i.e. in section 10.5.2.3 specifically Table 10.24, Appendix 10.3 Part I, CEMP Plans 1 and 4, Chapter 22 specifically Table 22.1 are adopted for construction and operation phases should be included as a condition of consent.
- The mitigation measures described in Chapter 11 on Hydrology & Hydrogeology i.e. Appendix 11.1 FRA section 5.3, CEMP Plans 2 and 3, Chapter 22 specifically Table 22.1 are adopted for construction, operations and decommission phases should be included as a condition of consent.
- In the interest of the protection of Public Health the proposed condition in MM88 of Chapter 22 of EIAR in line with Draft Revised Wind Energy Development Guidelines (2019) for no Shadow Flicker should be implemented if consent is given for the development.
- 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.



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- Require early engagement with the appropriate registering authority be undertaken to ensure compliance with Tobacco legislation smoking shelters in the layout of the six temporary construction compounds.

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

Yours Sincerely,

Lorraine Dempsey
Environmental Health Officer

Environment Network Support Unit
HSE National Environmental Health
Service

Declan Roe
Principal Environmental Health
Officer
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Mon 13/04/2026 15:34



Emergency Managementwest (Block A, MPH)

EIAR Application Carrigeen Renewable Energy Development

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Dear John,

The Office of Emergency Management, West Region acknowledges receiving this email correspondence from your national office. We note from the email that our colleagues in Health Protection, Estates and REO have been requested to comment from their service's respective viewpoints. Presently, from an HSE Emergency Management point of view, our office can see no reason (based on the information received) that would require our input at this time. However, we would request that concerns (if any) raised by our colleagues in Environmental Health, Health Protection, Estates or REO could be forwarded to this office in case we need to review our position.

Kind Regards,
Kathleen on behalf of Sean Adair, Regional Emergency Management Officer

Kathleen McCarthy
Clerical Officer

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