



An tOifig Náisiúnta um Sláinte Chomhshaoil  
Feidhmeannacht na Seirbhíse Sláinte,  
Urlár 2, Teach na Darach, Ascaill na Teile  
Páirc na Mílaoise, An Nás, Co. Chill Dara.

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An Coimisiun Pleanála  
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3<sup>rd</sup> December 2025

Planning ref [PAX07.323761](#)

**NEHS ref: ID5363**

Enclosed are the observations of the National Environmental Health Service (NEHS) on planning application [An Coimisiún Pleanála - Case reference: PAX07.323761](#)

Construction of wind energy development and all associated works located within Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter, Lissavally and Slievegorm, Co. Galway ([www.cooloowfplanning.com](http://www.cooloowfplanning.com))

Any clarification on the contents of this submission should be made, in the first instance [Andrew.sulley@hse.ie](mailto:Andrew.sulley@hse.ie) quoting NEHS ID5363

  
Andrew Sulley  
Senior Environmental Health Officer



## **National Environmental Health Service Submission Report**

### **Description**

Construction of wind energy development and all associated works

located within Cloondahamper, Cloonascragh, Elmhill, Cooloo, Lecarrow, Dangan Eighter, Lissavally and Slievegorm, Co.Galway

### **Case type**

Private Development - REDIII Application

### **Decision**

Case is due to be decided by 28/9/26

### **Type of Consultation: SID with EIAR**

The following HSE stakeholders were notified of the application on 16<sup>th</sup> October 2025:

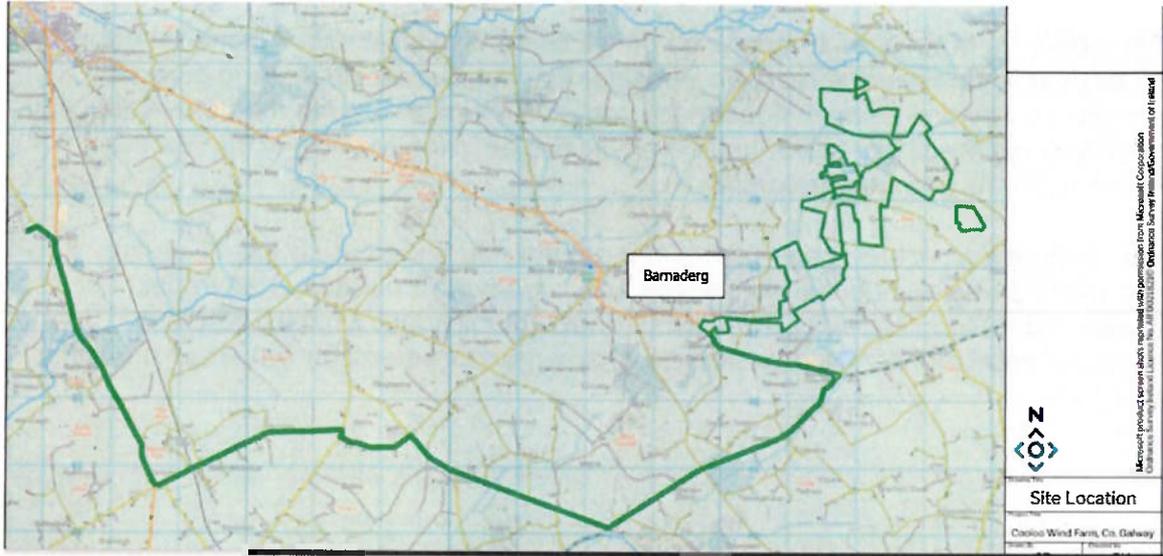
- Emergency Planning
- National Capital Estates Office
- Director of National Health Protection
- REO Mid-West

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 in the planning application, including mitigation and further testing, have been taken as read and all data results have been accepted as accurate, unless specifically highlighted in the submission.

No additional investigations/measurements have undertaken by the NEHS.

This report refers only to those sections of the application documents that are relevant to the HSE which have likely significant Environmental Health or Public Health impacts



General

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 or Environmental Health. The NEHS can make observations on any planning application as a statutory consultee.

The objective of any observations by the NEHS are to inform the Planning Authority on any likely significant effects on Public or Environmental 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 the Planning Authority in the planning process.

This submission is the observations and comments of the NEHS based on the submitted planning application and the accompanying Environmental Impact Assessment Report (EIAR). The NEHS does not carry out any independent environmental monitoring or validation of any measurements or data reproduced in an EIAR.

### **Criteria for Consideration of Likely Significant Effects on Public Health**

The NEHS considers likely significant effects on Public and Environmental 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](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)<sup>47</sup> 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 Directives<sup>48</sup>. 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, the Planning Authority 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. 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 Planning Authority also follows this method when consider Public Health in their decision making.**

### **Project Specific Guidance for Wind Energy Development**

The current Guidelines for Wind Energy Development 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. There has also been substantial increases in the body of knowledge around the likely significant effects of the operation of wind farm development on Population Health, in particular around the characteristic of the noise emissions and health effects of shadow flicker.

A revision of the 2006 GWED commenced in 2013 and Draft Revised Wind Energy Development Guidelines 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 2013 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 is aware of the High Court decision in **Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8<sup>th</sup> 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 Judgement also states the revised Draft Guidance has been withdrawn. There is no public indication this is the case. It 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 the Planning Authority 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) 8<sup>th</sup> 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://assets.publishing.service.gov.uk/media/5a795184e5274a3864fd5f82/pb-13584-windfarm-noise-statutory-nuisance.pdf>

### **Non-Technical Summary**

The Non-Technical Summary of the EIA (NTS) is an important document that facilitates public access and understanding of the proposed development.

It should accurately summarise the likely significant impacts, proposed mitigation and the residual impacts after mitigation has been implemented, that are attributable to the proposed development.

This should be done in non-technical language and relate accurately to the specific chapters of the EIAR. The NTS should identify all sensitive receptors that are likely to be significantly impacted and clearly state the significance of the effects on them.

### **Chapter 5 Population and Human Health**

The NEHS has considered Chapter 5 of the EIAR.

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.

## **Observations of the NEHS**

The main consideration for protection Population and Human Health within an Environmental and Public Health remit is a source – pathway- receptor with regard to emissions into the environment during construction and operation of the proposed development.

Particularly:

- a) Any likely significant effect from exposure to noise during construction and operation
- b) Any likely exposure to shadow flicker during operation,
- c) Any likely significant reduction in air quality during construction, particularly dust emissions,
- d) 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 the Planning Authority 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

The following is noted from the EIAR.

#### Health Service Executive

A scoping response was received from the Health Service Executive (HSE) on 22<sup>nd</sup> of May 2023. The HSE requested a shadow flicker assessment is undertaken to identify any dwellings and Sensitive Receptors which may be impacted by shadow flicker and noted that the assessment must include all proposed mitigation measures. The HSE also recommended that turbine selection will be based on the most advanced available technology that permits shut down during times when residents are exposed to shadow flicker. The HSE also noted that the assessment must include all proposed mitigation measures, including air quality due to the nature of the proposed construction works generation of airborne dust has the potential to have significant impacts on Sensitive Receptors. The response stated that a Construction Environmental Management Plan (CEMP) should be included in the EIAR which details dust control and mitigation measures. The HSE further stated that the EIAR should examine all likely significant impacts and provide the following information for each:

- > Description of the receiving environment;
- > The nature and scale of the impact;
- > An assessment of the significance of the impact;
- > Proposed mitigation measures;
- > Residual Effects.

Directive 2014/52/EU has an enhanced requirement to assess likely significant impacts on Population and Human Health. It is the experience of the Environmental Health Service (EHS) that impacts on human health are often inadequately assessed in Environmental Impact Assessments EIA in Ireland. It is recommended that the wider determinants of health and wellbeing are considered in a proportionate manner when considering the EIA. Guidance on wider determinants of health can be found at [www.publichealth.ie](http://www.publichealth.ie).

The HSE advised that in addition to any likely significant negative impacts from the Proposed Project, any positive likely significant impacts should also be assessed.

The Environmental Health Service (EHS) recommends that the following matters are included and assessed in the EIAR:

- > Public Consultation
- > Decommissioning
- > Siting, Location and details of Turbines/Energy Storage Batteries
- > Assessment of Consideration of Alternatives
- > Noise & Vibration
- > Shadow Flicker
- > Air Quality
- > Surface and Groundwater Quality
- > Geotechnical and Peat Stability Assessment
- > Ancillary Facilities
- > Cumulative Impacts

It is the opinion of the NEHS that the areas identified above have been assessed in the EIA and reported in the EIAR.

It should be noted by the Planning Authority that the following **'The HSE 'Position paper on wind turbines and public health'** has been withdrawn by the HSE and is under review.

It should also be noted that this refers to adverse effects *specific* to wind turbines. All large-scale development has potential to have adverse effects, including wind turbines

### Likely Significant Impact on Ground and Surface Water Chapter 9 of EIAR

The NEHS has considered Chapter 9 of the EIAR and the sections referenced. Based on the information provided in chapter 9 and particularly the surface water management plan detailed in appendix 4.5 Construction and Environmental Management Plan.

From EIAR

HSE	<i>The proposed development has the potential to have a significant impact on the quality of both surface and ground water. All drinking water sources, both surface and ground water, must be identified. Public and Group Water Scheme sources and supplies should be identified in addition to any private wells supplying potable water to houses in the vicinity of the proposed development. Measures to ensure that all sources and supplies are protected should be described.</i>	Section 9.3.15, 9.5.2.1, 9.5.2.11 & 9.5.3.3.
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#### 9.3.15.2 Private Domestic Wells

A search of private well locations on the GSI well database ([www.gsi.ie](http://www.gsi.ie)) reveal no mapped private wells within 2km of the Proposed Wind Farm site. There are several GSI mapped wells along the Proposed Grid Connection route within a 500m distance.

It is accepted that the GSI database does not include all potential water wells. As such, and in order to be conservative, for the purposes of assessment, as completed in Section 9.5.2.11 below, we assume that there is a groundwater well source at each residential dwelling location as identified in Chapter 5 of this EIAR: Population & Human Health.

Numerous private dwelling houses were identified along the local roads which surround the Proposed Wind Farm site (i.e. potentially down-gradient).

Due to the nature of the Proposed Grid Connection cable being within the carriageway of public roads outside the Proposed Wind Farm site, no assessment on potential wells located along the cable route was carried out due to the lack of potential affects.

GSI mapped wells and private dwelling houses are shown on **Figure 9-13** below.

The NEHS would concur with the conclusions that there is adequate protection of surface and ground water during construction and operation of the proposed development if all the mitigation identified is implemented in full. This would include drinking water sources identified in the EIAR.

## Consideration of Shadow Flicker – chapter 5

The EIAR clearly states the technology exists to reduce or eliminate shadow flicker where required.

The NEHS notes from table 5.11 that there is predicted exceedances of the 2006 WEDG guidance levels for shadow flicker. There is a commitment to use technology to mitigate any exceedances.

The draft 2019 Guidelines proposed a planning condition of:

The adopted DoEHLG 2006 Guidelines are currently under review. The Draft DoEHLG 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 DoEHLG 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 proposed condition in the 2019 Draft Guidance 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 identified in the EIAR. This mitigation should be implemented irrespective of whether the current guidance is updated.**

## Likely Significant Effects from Noise and Vibration (Chapter 12 of EIAR)

The NEHS has considered Chapter 12 of the EIAR and the accompanying documentation on the noise impact assessment and makes the following observations:

- a) The 2006 Guidelines include guidance on how to derive noise limits for daytime and night-time periods, which can be summarised as: daytime limits take account of existing background noise levels and include a fixed limit of 45 dB, or background + 5 dB, whichever is the greater, except in low background noise environments where a fixed minimum limit in the range 35-40 dB should be considered.
- b) This criteria is therefore that turbine noise at noise sensitive locations should not exceed for daytime periods:  
40 dB(A) where background noise levels are below 30 dB; and,

- 45 dB(A) or background noise plus 5 dB, whichever is the greater, where background noise levels are greater than 30.
- c) This criteria can potentially see a predicted increase of up to 15 dB(A) change in the noise environment as compliant with the criteria. Any change in the noise environment of this magnitude is highly likely to cause complaints and/or nuisance. **BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound** identifies an increase of 10 dB above existing rated noise levels will have a significant adverse impact and is highly likely to cause complaints.
  - d) From the 2006 Guidelines ***“However, in very quiet areas, the use of a margin of 5dB(A) above background noise at nearby noise sensitive locations is not necessary to offer a reasonable degree of protection and may unduly restrict wind energy developments which should be recognised as having wider national and global benefits. Instead, in low noise environments where background noise is less than 30dB(A), it is recommended that the daytime level of the LA90, 10min of the wind energy development be limited to an absolute level within the range of 35 – 40dB(A).”*** There is no evidence base to support the statement that this limit is not necessary to offer a reasonable degree of protection in low noise background areas.
  - e) The evaluation of significance of the effect should be based on the most up to date scientific knowledge and data. The EIA process specifically requires the assessment to be ‘the likely significant effects’ and if the knowledge on an evaluation criteria for significance has developed since the publication of a guidance, then it is reasonable and correct to use the developed knowledge base in assessing the significance of any effect. This is particularly relevant to the protection of Public Health. Statutory Guidance issued under the Planning Development Act 2000 (as amended) has to be considered by the Planning Authority when making a decision, but it is not a consideration that precludes all other evidence and knowledge. In ***Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8<sup>th</sup> March 2024*** the Judgement supports this position, in that the judgement makes it clear that compliance with the current Planning Guidance does not preclude a private noise nuisance.
  - f) In the opinion of the NEHS, tabulation of the predicted change in the noise environment from the proposed development and the cumulative change in the original baseline noise environment before any wind farm development in the area is the most informative way of reporting the likely effect of operational noise in an EIAR.
  - g) 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>

- h) The use of the 2006 Guidance with regards to noise exposure, and in particular the 'balance between development and protection of public health' stated 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.
- i) It should be noted that concern with the 2019 draft guidance by acoustic consultants were concerns due to assessment methodology and not the proposed standards set to protect health. In the response from the Institute of Acoustics they specifically state: ***'The Group agreed and stressed in their responses that they believe the setting of suitable noise limits is a matter for Government policy. The Group was only concerned with aspects of technical accuracy and clarity'***.
- j) [Wind Energy Development Guidelines \(WEDG\) for consultation for Irish Department of Housing, Planning, Community and Local Government \(DHPLG\) | Institute of Acoustics](#)

## Predicted Operational Noise

The NEHS notes that the table of predicted noise at NSL in Table 12.15 and 12.17 and that the predicted noise levels are below the adopted standard.

### 12.6.4.2 Operational Phase

The Proposed Wind Farm operational noise assessment has already taken cumulative impacts with other permitted nearby wind farms into consideration, as described in the above assessment. The likely cumulative operational noise assessment show that the Proposed Wind Farm can operate concurrently with the operational and permitted wind farms and there would therefore be **no significant cumulative wind turbines operational noise effects** at all NALs.

No cumulative noise effects are anticipated in relation to the BESS. As such **no significant cumulative BESS operational noise is anticipated.**

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## **Consideration of the predicted noise exposure from construction of the proposed development**

The NEHS makes the following comments:

- a) The NEHS is of the opinion that there is no requirement for additional noise mitigation measures during the construction phase providing those measures identified in the in the EIAR are implemented in full.
- b) It is the opinion of the NEHS that conditioning hours of construction activity is an important element of the protection of Public Health. Particularly to prevent sleep disturbance. The recommended hours of construction are:

**Monday to Friday 08.00 to 19.00**

**Saturday 09.00 to 14.00**

**No work on Sunday or Bank Holidays**

**Exceptionally work outside these hours at the express permission of the Planning Authority.**

**This recommendation is made in the interest of the protection of Public Health**

## **Mitigation and Monitoring**

The NEHS has considered the proposed mitigation and monitoring detailed in the EIAR chapter 18, in the context of the protection of Public and Environmental Health and the Construction and Environmental Management Plan in Appendix 4.5 and the surface water management plan in the EIAR. The NEHS is of the opinion that if the mitigation measures are implemented in full there is adequate protection of Public and Environmental Health during the proposed construction phase.

## **Construction and Environmental Management Plan (CEMP)**

The NEHS has considered the CEMP in Appendix 4.5.

The plan is detailed at 203 pages and will be required to be reviewed with the appointed contractors. It is the opinion of the NEHS that there is adequate protection of Public and Environmental Health during the construction phased if all mitigation measures identified are implemented in full.

Additional considerations in the interest of the protection of Public Health. The NEHS notes the following from the EIAR:

- a) All drinking water and water used for the preparation of food in the temporary construction compounds should meet the requirements of S.I. No. 122/2014 - European Union (Drinking Water) Regulations 2014,
- b) There should be no direct emission to ground or surface water of any foul wastewater. All wastewater should be contained and taken off site to a licensed treatment facility.
- c) Site drainage should ensure the protection of surface and ground water during the construction phase. These are detailed in the CEMP and the NEHS has no additional comments.
- d) 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.

The NEHS has no additional observations on the proposed mitigation measures and considers there will be adequate protection of Public and Environmental Health during the construction phased if all mitigation measures identified are implemented in full.

  
Andrew Sulley  
Senior Environmental Health Officer

