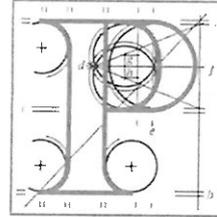


**Our Case Number:** ACP-323980-25



**An  
Coimisiún  
Pleanála**

National Office for Environmental Health Services  
c/o Andrew Sulley  
2nd Floor Oak House  
Lime Tree Avenue  
Millennium Park, Naas  
Co. Kildare  
W91 KDC2

**Date:** 09 March 2026

**Re:** Proposed Water Supply Project for the Eastern and Midlands Region  
in the counties of Clare, Limerick, Tipperary, Offaly, Kildare, and Dublin.

Dear Sir / Madam,

An Coimisiún Pleanála has received your submission in relation to the above-mentioned proposed development and will take it into consideration in its determination of the matter.

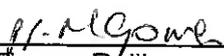
The Commission will revert to you in due course in respect of this matter.

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

More detailed information in relation to strategic infrastructure development can be viewed on the Commission's website: [www.pleanala.ie](http://www.pleanala.ie).

If you have any queries in the meantime, please contact the undersigned officer of the Commission. Please quote the above mentioned An Coimisiún Pleanála reference number in any correspondence or telephone contact with the Commission.

Yours faithfully,

  
Eimear Réilly  
Executive Officer  
Direct Line: 01-8737184

PA09

Teil	Tel	(01) 858 8100
Glaó Áitiúil	LoCall	1800 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	<a href="http://www.pleanala.ie">www.pleanala.ie</a>
Ríomhphost	Email	<a href="mailto:communications@pleanala.ie">communications@pleanala.ie</a>

64 Sráid Maoilbhríde	64 Marlborough Street
Baile Átha Cliath 1	Dublin 1
D01 V902	D01 V902

## Muirin Gowen

---

**From:** LAPS  
**Sent:** Wednesday, February 25, 2026 4:49 PM  
**To:** Eimear Reilly  
**Subject:** FW: Proposed Water Supply Project for the Eastern and Midlands Region PA92.323980  
**Attachments:** NEHS Observations Planning Application for the Water Supply Project Eastern and Midlands RegionFinal25-2-26.pdf

---

**From:** Andrew Sulley <Andrew.Sulley@hse.ie>  
**Sent:** Wednesday 25 February 2026 16:17  
**To:** LAPS <laps@pleanala.ie>  
**Subject:** FW: Proposed Water Supply Project for the Eastern and Midlands Region PA92.323980

You don't often get email from [andrew.sulley@hse.ie](mailto:andrew.sulley@hse.ie). [Learn why this is important](#)

**Caution:** This is an **External Email** and may have malicious content. Please take care when clicking links or opening attachments. When in doubt, contact the ICT Helpdesk.

---

**From:** Andrew Sulley  
**Sent:** Wednesday 25 February 2026 16:14  
**To:** [laps@pleasnala.ie](mailto:laps@pleasnala.ie)  
**Subject:** Proposed Water Supply Project for the Eastern and Midlands Region PA92.323980

Find enclosed the HSE observations on PA92.323980 –Water Supply Project Eastern and Midland Region

Andrew Sulley

Oifigeach Sláinte Comhshaoil Sinsearach/Senior Environmental Health Officer  
Timpeallacht Athrú Aeráide Aonad Tacaíochta Líonra/Environment Climate Change Network Support Unit

Seirbhís Náisiúnta Sláinte Comhshaoil, FSS/ National Environmental Health Service, HSE  
Holland, Páirc Theicneolaíochta Plassey, Luimneach/ Holland Road, Plassey Technological Park, Limerick

---

"Tá an fhaisnéis sa ríomhphost seo (ceangaltáin san áireamh) faoi rún. Baineann sé leis an té ar seoladh chuige amháin agus tá sé ar intinn go bhfaighfidh siadsan amháin é agus gurb iadsan amháin a dhéanfaidh breithniú air. Más rud é nach tusa an duine ar leis é, tá cosc iomlán ar aon fhaisnéis atá ann, a úsáid, a chraobhscaoileadh, a scaipeadh, a nochtadh, a fhoilsiú, ná a chóipeáil. Seans gurb iad tuairimí pearsanta an údar atá san ríomhphost agus nach tuairimí FSS iad.

Má fuair tú an ríomhphost seo trí dhearmad, bheadh muid buíoch dá gcuirfeá in iúil don Deasc Seirbhísí ECT ar an ngnúthán ag [+353 818 300300](tel:+353818300300) nó ar an ríomhphost chuig [service.desk@hse.ie](mailto:service.desk@hse.ie) agus ansin glan an ríomhphost seo ded' chóras."

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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.

National Office for Environmental Health Services  
2nd Floor, Oak House, Lime Tree Avenue  
Millennium Park, Naas, Co. Kildare  
Eircode: W91KDC2

An Coimisiun Pleanála  
64 Marlborough Street  
Dublin 1

18th Feb 2026

An Coimisiún Pleanála - Case reference: PA92.323980

Proposed Water Supply Project for the Eastern and Midlands Region

**NEHS ref: ID5551**

Enclosed are the observations of the National Environmental Health Service (NEHS) on planning application PA92.323980

Any clarification on the contents of this submission should be made, in the first instance to [environmental.health@hse.ie](mailto:environmental.health@hse.ie) quoting reference ID5551.

A handwritten signature in blue ink, appearing to read 'Declan Roe'.

Declan Roe  
Principal Environmental Health Officer



## National Environmental Health Service Submission Report

### Description

An Coimisiún Pleanála - Case reference: PA92.323980

### Case type

Private Development

**Type of Consultation:** SID with EIAR

The following HSE stakeholders were informed of the application on the 19<sup>th</sup> December 2025:

- Emergency Planning – Paul Brophy/ Sean Adair
- National Capital Estates Office – Regional AND
- Director of National Health Protection – Eamonn O’ Moore/Ina Kelly
- REO Mid- West – Sandra Broderick  
REO – Dublin Midlands – Kate Killeen White

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 Public or Environmental 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 are 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.

Of particular consideration for this application is the established land use of Peamount Healthcare and the service provision and sensitivity of receptors and the specifically any likely significant effects during the construction and operational phase of the proposed Termination Point Reservoir.

Peamount Healthcare have made specific observations to the NEHS as part of the consultation carried out with health provision by the NEHS, and these observations are included with this submission in the section considering chapter 15 of the EIAR on Human Health.

**Details of the observations and comments from Peamount Healthcare and the rationale for the basis of their observations are included further on in this submission, but the strong recommendation from the NEHS is that if consent is given for the proposed development then An Coimisiún Pleanála condition that consent with a requirement that a specific Construction and Environmental Management Plan is developed for construction around Peamount Healthcare. This should be done in conjunction with representatives from Peamount Healthcare and should recognise the sensitivity of the service provision and the requirement for enhanced mitigation measures during the construction and operational phase.**

## General Comments on the Proposed Project

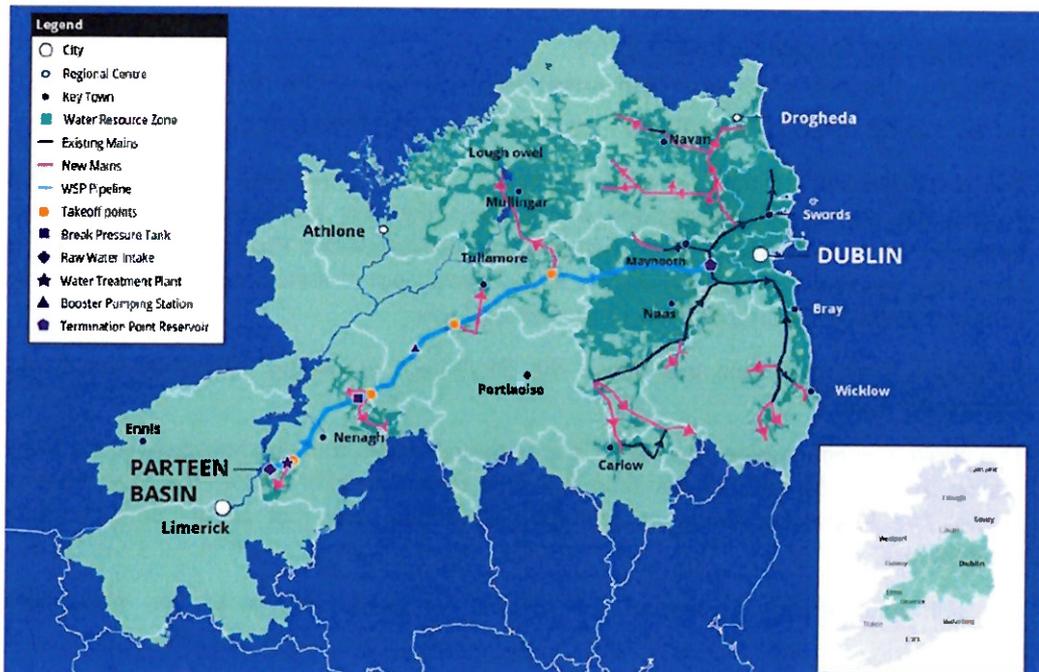
The NEHS generally supports in principle any development that provides safe and secure public drinking water supplies. Safe and sustainable drinking water is essential to public health.

The proposed project is part of the National Water Resource Plan and the Framework Plan for identifying water supply needs up to the year 2044.

The National Water Resource Plan and the Framework Plans were subject public consultation prior to them being adopted in 2021. The NEHS made observations during that consultation process supporting the proposal to consider water supply needs in a strategic manner and the proposed investment in upgrading Public Water Supplies.

It should be clearly recognised that the proposed project is not just about meeting the deficit in supply requirements to the Greater Dublin Area Water Resource Zone (GDA WRZ) but will also provide for potential future connections into 18 other Water Resource Zones in the Eastern and Midlands Region. The project will also facilitate the potential future supply to 17 other Water Resource Zones adjacent to the GDA WRZ, through the redistribution of supply within the GDA WRZ and an expansion of the GDA WRZ.

The above proposed developments are significant in the provision of safe and secure drinking water across the Eastern and Midlands Region and are therefore significant for Public Health.



## **Scoping of the EIA and Consultation with the HSE Prior to the Application**

Uisce Éireann made a request to the HSE to make observations on the scope of the EIA and a submission was made by the NEHS on the 9<sup>th</sup> January 2024 (ref ID3532)

The content of the NEHS scoping submission has been reviewed against the submitted EIAR and the NEHS makes the following comments:

- a) The NEHS is satisfied that all the specific areas that the submission recommended should be assessed by the applicant, have been assessed and reported in the EIAR.
- b) Prior to making the scoping submissions the NEHS consulted with HSE stakeholders. This consultation does not routinely include section 38 funded healthcare provision. Consequently, the scoping submission did not include specific comments regarding Peamount Healthcare. The concerns raised by Peamount Healthcare at the application stage should now be considered by the Planning Authority.

A meeting was held between the NEHS and Uisce Éireann on the 12<sup>th</sup> November 2024 to discuss how health gain could be incorporated into the community benefit aspect of the proposed project. The NEHS opinion is that the Healthy Ireland Strategy and other National Health Strategies give clear remits for incorporating health gain opportunities into large scale public funded infra structure projects. These opportunities were discussed with Uisce Éireann during the meeting.

## **Specific Items from Scoping the EIA**

The NEHS notes the following in the EIAR:

- a) The human health and environmental assessment of the any contaminated land at the disused petrol station at Birdhill on the R445 and the conclusion:

The concentration of soils located upgradient and downgradient of the petrol station are comparable to natural background metal concentrations and below the phytotoxic criteria threshold values. All metals at the petrol station are below the Phytotoxic screening guidelines. Metal and hydrocarbon concentrations at the former petrol station reflect the natural soil metal concentrations in the area and the proposed land use.

Cadmium, Lead and Zinc are above the Phytotoxic screening values on the banks of the Kilmastulla River.

The above values indicate that the soils at both upgradient and downgradient of the former petrol station did not indicate contamination. No soils concentrations exceed the Phytotoxic screening levels. The Phytotoxic levels are set at a level that does not impact on agriculture or the environment.

No soil concentration exceeded the S4ULs for hydrocarbons on the Kilmastulla River.

The following is noted from the EIAR:

- pyrocarbon concentrations.
2. Elevated soil metal concentrations were detected in the soil sample on the banks of the Kilmastulla River. Metal concentrations are elevated as a likely result of historic mining in the Silvermines hills which form the upper catchment of the Kilmastulla River. While the soil metal concentrations are high, no evidence of elevated metals were detected in the Kilmastulla River.
  3. Soil removal, where required along the banks of the Kilmastulla River, will require disposal in accordance with the Waste Management Act 1996 as amended.
  4. No measured surface water concentrations in the Knockadromin River or Kilmastulla River exceeded the screening values.
  5. Notwithstanding the above, should any excavation or removal of soil proximal to the former fuel tanks be proposed (which is not currently the case) this would require further site investigation.
- b) Section 15.4.6.2.1 of the EIAR considers the risks to food premises of increased rodent activity due to construction works and concludes there is minimal risk due to the distances to the nearest food business. (nearest being 145m).

### **Water Abstraction License**

The HSE has been consulted in January 2026 on the scope of the EIA that will accompany the application to the EPA on the Water Abstraction License. A submission has been made to the applicant by the NEHS dated 23<sup>rd</sup> February 2026 in this regard. The NEHS recognises that whilst the water abstraction license is considered under a separate regulatory framework, it is integral to the planning application and the accompanying EIAR.

The NEHS does not have competency to make observations on the likely significant effects, if any, on ecology or habitats or protection of the European Designated Sites that may be affected by the abstraction.

Any likely significant effect on local water supplies, particularly private water supplies, on recreational water use and protection of surface and ground water during construction phase have been considered in the EIAR. Specific comments are made further on in this submission.

## General Observations Regarding Construction Activities

It is noted from the EIAR that the construction phase of the proposed project is estimated at 5 years. Though different phases will be completed at different times. In the interest of the protection of Public and Environmental Health during these five years, the following should be incorporated into the construction phase:

- a) Any water supply used for drinking or preparation of food in the 4 temporary construction compounds, and their satellite compounds, should meet the requirements of [European Union \(Drinking Water\) Regulations 2023](#). Any water source not from a Public Water Supply should be verified as meeting these requirements.
- b) There should be no direct emission of foul or wastewater to ground or surface water. All foul wastewater that cannot be discharged to the public sewer should be contained and taken off site to a licensed treatment facility. A record of this should be maintained.
- c) Where construction is near sensitive receptors, for example food businesses, consideration must be given to any interruption of services and effects on maintaining food safety cold chains and any restrictions on food delivery routes or waste removal routes. If construction involves excavation of existing drainage or disturbing rodent habitats near sensitive receptors, then a pest control plan should be implemented. This is irrespective of the conclusion in the EIAR section 15.4.6.2.1 that the risk of increased rodent activity at food premises is minimal.
- d) The NEHS notes the proposed construction activity times and the identified need to sometimes operate outside these times. The proposed hours of Monday to Friday – 7am to 7pm • Saturday – 8am to 4.30pm are considered to provide adequate protection of Public Health during a temporary construction phase, but work outside these hours, particularly nighttime work, should be the exception and for specific operational requirements. Prolonged sleep disturbance from a new noise source is recognised as having adverse effects on health.  
<https://www.who.int/tools/compendium-on-health-and-environment/environmental-noise>
- e) Standard dust monitoring for construction projects is to set dust limits as the Bergerhoff limit of 350 mg/m<sup>2</sup>/day on site boundaries. This is a monthly average standard for daily dust deposition. Compliance with this 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 mitigation is continually implemented, and any complaints are

investigated and responded to and additional mitigation measures implemented when required.

- f) Floodlighting of compounds and the use of artificial light in areas of construction activity should be done according to methodology that reduces the likelihood of creating a nuisance to sensitive receptors whilst ensuring correct and safe illumination for different activities. In the absence of definitive published Irish Guidance in this area, reference should be made to UK Guidance: Society for Light and Lighting's Code for Lighting (published by the Chartered Institution of Building Services Engineers-UK) and the Health and Safety Executive's Lighting at Work (UK) (HSG38). There is also a published Lighting Plan for the MetroLink project that addresses common issues for large scale construction projects with regard to artificial light .  
[https://www.pleanala.ie/publicaccess/EIAR-NIS/314724/5\\_EIAR/Volume%205%20Appendices/Chapter%2005%20MetroLink%20Construction%20Phase/A5.18%20Construction%20Lighting.pdf#:~:text=The%20recommended%20illuminance%20and%20lighting,is%20indicated%20in%20Table%201.1.](https://www.pleanala.ie/publicaccess/EIAR-NIS/314724/5_EIAR/Volume%205%20Appendices/Chapter%2005%20MetroLink%20Construction%20Phase/A5.18%20Construction%20Lighting.pdf#:~:text=The%20recommended%20illuminance%20and%20lighting,is%20indicated%20in%20Table%201.1.)

## **Chapter 15 of EIAR – Human Health**

The NEHS has considered chapter 15 of the EIAR on Human Health and makes the following observations:

- a) Reference is made to section 15.2.2 and the scope of the assessment for likely significant impacts on health. The scope for the EIA is based guidance in the 2021 Institute of Public Health's Health Impact Assessment Guidance Manual. This model creates a scope that is proportionate and that focuses on those impacts that are likely to be significant. The NEHS agrees that this methodology is the most appropriate and effective way to integrate the health aspects into the EIAR.

- b) The NEHS would agree with the areas that were considered in this section of the EIAR which are reproduced below:
- Biophysical environment
    - Air quality (construction dust and construction vehicle emissions during Construction Phase)
    - Water (drinking water and bathing water quality during Construction and Operational Phases)
    - Soil (including ground pollution and agricultural land during Construction Phase)
    - Noise and vibration (plant, processes and vehicle disturbance during Construction and Operational Phases)
  - Social environment
    - Open space, leisure and play (access and amenity of green and blue space and recreation during Construction Phase)
    - Community safety (disease vectors (vermin), injury risks during Construction Phase)
  - Economic environment
    - Employment and income (employment opportunities and impacts on farm businesses during Construction Phase)
  - Wider societal benefits
    - Water infrastructure (benefits of improved water supply infrastructure and a safe, secure and sustainable water supply during Operational Phase)
    - Economic benefits (related to resilient water supplies during Operational Phase)
    - Climate change (during Operational Phase).
- c) The NEHS would consider the rationale given in Appendix A15.1 for the scoping decisions to be robust and would not recommend that any additional areas should be assessed.
- d) The NEHS agrees with the statement in paragraph 24 of chapter 15 that a stand alone HIA is not required in EIA and the health assessment should be integrated into the EIA process. This was the position of the NEHS during the meeting of the 12<sup>th</sup> November 2024.
- e) The NEHS notes that the summary of HSE consultation in this area has been summarised in table 15.3 and the content of the NEHS scoping submission summarised and connected to the relevant sections of the EIAR.
- f) The NEHS notes the identification of health inequalities as an important part of the assessment in paragraph 37 and differing sensitivities with populations.
- g) The population likely to be significantly impacted has been defined as within 500m of the pipeline and is reported for each county as below:

**Table 15.8: Estimated Residential Population in Local Study Area**

County	Number of Residential Properties in Local Study Area	Estimated Population <sup>1</sup>
Clare	503	1,378
Kildare	452	1,238
Limerick	98	269
Offaly	906	2,482
South Dublin	88	241
Tipperary	619	1,696
<b>Local study area total</b>	<b>2,666</b>	<b>7,305<sup>2</sup></b>

<sup>1</sup> Crudely calculated by multiplying the number of properties with the national average household occupancy of 2.74

<sup>2</sup> Calculated using the local study area total number of properties multiplied by the national average household occupancy of 2.74 rather than a total for the estimated population column.

60. There are three educational facilities within the local study area. Scoil Náisiúnta Ard Croine in Ardcroney, Tipperary (see Figure 15.16) is a primary school with 133 pupils enrolled (Department of Education 2025). It is located approximately 400m from the Planning Application Boundary. Shinchill (Killeigh) National School (see Figure 15.39) is a primary school in Killeigh, Offaly, which has 292 children enrolled (Department of Education 2025). It is approximately 360m from the Planning Application Boundary. The Peamount Education (Training) Centre located on R120 Keeloges, Lucan in Dublin (see Figure 15.64) is part of Peamount Healthcare and provides a variety of healthcare training courses for its workforce. It is located approximately 210m from the Planning Application Boundary. The population groups using these facilities are assessed as high sensitivity since they include children (dependants) and healthcare workers who provide care to vulnerable groups.
61. There are five healthcare facilities identified in the local study area. Ashlawn House Nursing Home in Carrigatoher, Nenagh, County Tipperary (see Figure 15.11), is a 29-bed nursing home which also has a separate Alzheimer-related-illness unit for up to 12 residents (Ashlawn House 2025). The Peamount Hospital complex includes various healthcare facilities (see Figure 15.64), including the aforementioned Peamount Education (Training) Centre. Other facilities on the Peamount Road complex, are Peamount Clinic, a Health Centre and a Nursing Home. The complex provides a variety of residential services, rehabilitation and community healthcare services. It provides 50 beds for older persons' residential care, 15 beds for people with neurological disabilities (St. Brids Neuro Disability Unit) and supports 85 people with intellectual disabilities (both on campus and within the community) (Peamount Healthcare 2025). The Peamount Healthcare complex is assessed as a site of high sensitivity due to its vulnerable and dependent population with low capacity to adapt. The site abuts the Planning Application Boundary at the proposed TPR location.

## **Submission from Peamount Healthcare**

The EIAR clearly identifies Peamount Healthcare as a highly sensitive receptor.

The following is a submission from the Consultant in Rehabilitation Medicine of Peamount Healthcare

*Peamount Healthcare is a voluntary organisation providing a range of health and social care services through a Service Level Agreement with the Health Service Executive under Section 38 of the Health Act.*

*The services provided encompass Acute Rehabilitation, Residential, Outpatient and Community Services.*

*Peamount Healthcare have a number of significant concerns that will need to be addressed through mitigation in the current planning application relating to the proposed location of the storage tanks. These tanks will be located approximately (EIAR stating 35m to nearest building) metres from the boundary of our site, in close proximity to an 18-bed slow stream rehabilitation/ residential unit for people with an acquired brain injury. In addition, Peamount Healthcare provide rehabilitation for approximately 1,600 inpatients per year with Respiratory, Rheumatological or Neurological conditions, a significant proportion of whom are over 65 years of age with impaired immune systems. In addition, located on our site is a 50 bed Nursing home for Older Persons, residential accommodation for 40 people with an Intellectual Disability, Outpatient Respiratory, Rheumatology and Neurology services with approximately 4,000 attendances annually and an Older Person's Day Service with 2,500 attendees per year.*

*The following risks have been identified:*

- 1. **Infection** – due to the nature of the proposed works, there will be significant potential exposure to Aspergillus and other spores released during excavation. Further exposure may be significant due to the transportation/ earth moving activities. This is compounded by the fact that the Peamount Healthcare buildings are old and will offer little protection from ingress of spores. There are no air handling, ventilation or hepa filtration units in any unit on site.*
- 2. **Noise** – it is anticipated that the proposed excavation, subsequent building work and ongoing maintenance and plant operation will significantly increase noise levels experienced by residents, patients and staff across the Peamount Healthcare campus. Of particular concern is the effect this may have on residents in our Neuro Disability residential unit and patients in our Neuro Rehabilitation Unit.*

*The majority of the patients and residents in these units have an Acquired Brain Injury, with those in the residential unit experiencing prolonged Disorders of Consciousness (DOC). These residents and patients require a quiet, calm*

environment and staff work consistently to ensure that noise stimulation is controlled to the individual person's needs. Constant noise from heavy machinery will be detrimental to their care, treatment and potential to rehabilitate. For reference, please see below:

- A. We know that brain activity is reduced in DOC patients both clinically but also by EEG analysis - higher CRS-R is associated with higher level of alertness - EEG complexity correlates with residual consciousness level of disorders of consciousness paper

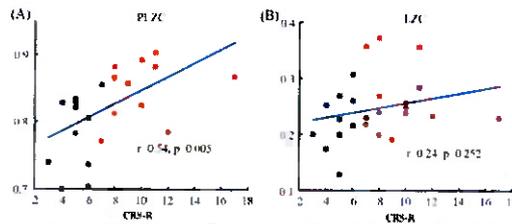


Fig. 3 Pearson correlation of global average PLZC (A) and LZC (B) with CRS-R. Black shows patients with vegetative state/unresponsive wakefulness syndrome (VS/UWS) and red shows patients with minimally conscious state (MCS)

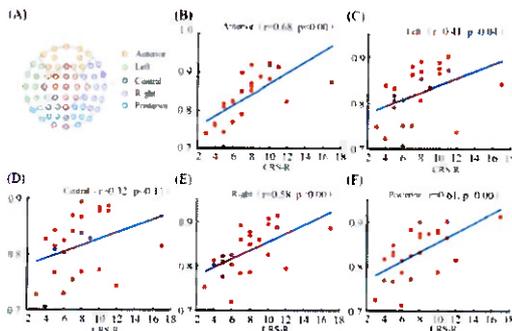


Fig. 4 Pearson correlation of PLZC in brain regions and CRS-R. A Channels of the five identified brain regions. B-F Correlation of average PLZC in each brain region with CRS-R

- B. further evidence supports the reduction of cognitive function as evidenced by test performance and EEG assessment in the The Effect of Noise Exposure on Cognitive Performance and Brain Activity Patterns paper. There are tables which show how this effect worsens as the noise level goes up.

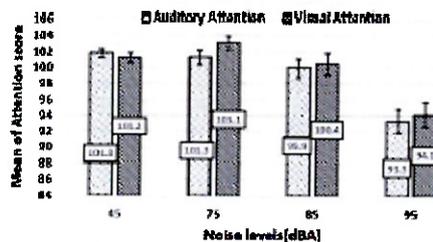


Figure 4: The effect of noise levels on visual and auditory attention

**Light** – Any additional lighting during construction and operation of the water storage facility could affect the residents in the Neuro Disability Unit due to the close proximity.

## Observations by the NEHS on the Submission by Peamount Healthcare

Chapter 8 of the EIAR considers the likely significant effects from noise during the construction of the Termination Point Reservoir.

The chapter concludes with the following:

Environmental Impact Assessment (EIAR) Volume 3 of 6 Environmental Assessment (Chapter 6) Noise & Vibration

Element	Pre-Mitigation Effect	Mitigation	Post-Mitigation Residual Effect				
	Significance of Effect		Duration of Effect	Quality of Effect	Significance of Effect	NSLs Affected by Residual Effects	Description of Effects
BPT	Slight to Moderate (effect is not significant)	Section 6.5.2.2.2	Short term	Negative	Slight to Moderate (effect is not significant)	All NSLs Slight to Moderate (effect is not significant)	Nearest NSL approximately 280m from works, construction noise levels within CNT but above the measured baseline noise levels resulting in a Slight to Moderate residual effect.
BPS	Slight to Moderate (effect is not significant)	Section 6.5.2.2.2	Short term	Negative	Slight to Moderate (effect is not significant)	All NSLs Slight to Moderate (effect is not significant)	Nearest NSL approximately 260m from works, construction noise levels within CNT but above the measured baseline noise levels resulting in a Slight to Moderate residual effect.
FCV	Slight to Moderate (effect is not significant)	Section 6.5.2.2.2	Short-term	Negative	Slight to Moderate (effect is not significant)	All NSLs Slight to Moderate (effect is not significant)	Nearest NSL approximately 130m from works, construction noise levels within CNT resulting in a Slight to Moderate effect (effect is not significant)
TPR	Moderate to Significant	Section 6.5.2.2.2	Short term	Negative	Slight to Moderate (effect is not significant)	All NSLs Slight to Moderate (effect is not significant)	After the implementation of mitigation, the NSLs identified approximately 35m from the works at Peamount Hospital would experience construction noise levels below the adopted CNT during all phases of the construction and therefore the effect is not significant, all NSLs beyond the nearest NSL at 35m from the TPR site are predicted to result in a residual Slight to Moderate effect (effect is not significant)

The standard used to evaluate the significance of noise is specified in section 6.2.6 of the EIAR reproduced below.

### 6.2.6 Appraisal Method for the Assessment of Impacts

#### 6.2.6.1 Construction Phase – Noise

36. There is no published statutory Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. Local Authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion. In general, higher noise levels are tolerated during a project's construction phase compared with its long-term operational phase, as construction works are temporary to short term and are varied over the course of the work duration. In the absence of specific statutory guidance, reference has been made to the TII 2004 and 2014 Noise Guidelines and BS 5228-1 (BSI 2014a) to review and set appropriate noise construction criteria.

##### 6.2.6.1.1 Linear Infrastructure – TII Guidelines

37. The TII 2014 Noise Guidelines (TII 2014) include the construction noise limits to be applied to the façade of dwellings (which align with the TII 2004 Noise Guidelines). While this document is specifically intended for the purpose of new national road schemes, in the absence of other national guidelines relating to the specific development under consideration, the TII guidelines were considered appropriate to determine the likely significant noise effects of the Proposed Project. This is because the pipeline, the proposed 38 kV Uprate Works and access road constructions consist of long linear structures through environments similar to those in which new national roads are typically constructed (i.e. rural/semi-rural environments). These maximum noise levels for the linear sections of the Proposed Project are set out in Table 6.3.

In Chapter 6 of the EIAR on noise the following is noted:

362. Regarding the TPR, the pre-mitigation effects predicted in Section 6.4.2 would be short term, negative and Moderate to Significant (effect is significant). Specific mitigation will be required at this location to mitigate the most significant of effects. The nearest NSLs relate to two buildings within Peamount Hospital. Site hoarding of a sufficient height and mass will be erected along the boundary of the hospital alongside localised screening around noisy items of plant and other good practice noise control measures discussed in Section 6.5.2.1 to reduce construction noise to within the adopted criteria.

and the following is noted from the EIAR chapter 15:

182. Regarding potential impacts of noise from construction of the TPR and access road construction on the sensitive population at Peamount Hospital complex, Section 6.5 of Chapter 6 (Noise & Vibration) sets out mitigation for noise. With those measures in place the noise assessment predicts that Moderate to Significant noise impacts for the TPR and access road construction would reduce to Slight to Moderate significance (effect is not significant). This represents a noise level below or equal to the construction noise threshold but above the baseline noise level. Reference should be made to Chapter 6 (Noise & Vibration) for specific details of the mitigation and residual effects on noise. This would partially mitigate the health effects predicted at Peamount Hospital complex, including the nursing home. There are no other significant human health effects predicted at Peamount Hospital complex, therefore, no further additional mitigation measures are recommended. The residual health effect is assessed as negative, Moderate, short term (effect is not significant).

The above does not concur with the content of the submission by peamount Healthcare and a specific noise mitigation plan should be formed by the applicant in consultation with Peamount Healthcare.

The use of artificial light and the impact on the Peamount Healthcare facilities should be explicitly considered as part of the Lighting Plan previously referenced in this submission.

With regard to dust and the risk of infection identified in the submission from Peamount Healthcare, the following is noted in the EIAR Chapter 15 paragraph 126.

126. Earthworks, demolition and construction activities can be associated with the release of fungal spores into the atmosphere. Aspergillus is a ubiquitous organism and is present everywhere but is of particular concern when large scale demolition, excavation and earth-moving activity takes place. The vast majority of people are immune to this, but invasive aspergillosis is a disease which is harmful to people with suppressed immune systems, such as hospital inpatients. Relevant locations in the local study area with highly sensitive groups would therefore be Ashlawn House Nursing Home which is within 185m of the Construction Working Width (Chainage TW – 11900) and the nursing home at the Peamount Healthcare complex which is within 25m of the Construction Working Width at the TPR location. The National Guidelines for the prevention of Nosocomial Aspergillosis During Construction/Renovation Activities (Health Protection Surveillance Centre 2018) deals specifically with construction works occurring within or adjacent to hospitals. Fungal spores are dispersed to no measurable concentration at approximately 250m from the source of the release. The National Guidelines note that the fundamental requirements in preventing aspergillus infection arising from construction works are, first, to reduce the dust generated during construction and, second, to prevent dust infiltration into patient care areas. Works in close proximity to the hospitals will be carried out in accordance with the National Guidelines with dust suppression measures in place, and in consultation with the healthcare setting manager and relevant hospital Infection Prevention and Control Team (ICPT). The National Guidelines set out a risk assessment process for invasive aspergillosis, which includes categorising patients according to their level of susceptibility to invasive aspergillosis. The Guidelines then set out prevention and control measures according to the category of patient risk. Patients in the highest category of susceptibility are normally placed in specially designed units that have highly filtered air to protect them from outside sources, although the National Guidelines allow for the ICPT to identify alternative measures for settings where such filtration facilities are not available. On the basis that the National Guidelines would be followed, the risk of exposure would be negligible and it is assessed that the risk of invasive aspergillosis is negative, Not Significant, temporary.

It is important that this mitigation strategy is implemented in consultation of Peamount Healthcare.

## **Food Premises**

The NEHS notes the following from the EIAR:

105. In response to scoping comments by the HSE's National Environmental Health Service, the locations of food preparation premises have been identified within the local study area. Twelve premises where food is prepared and/or sold have been identified. There are two public houses within 500m of the 38 kV Uprate Works sites (Dagger's Bar, Blackwater, County Clare; and Matt the Thresher Inn, Birdhill, County Clare). Mona Bar and Darcy's service station are at Mount Lucas, Esker Beg, County Offaly on the R402 (240m and 145m from the Planning Application Boundary respectively, Chainage TWC – 19250). Rudd's Fine Foods manufacturing facility and Aonach Bed & Breakfast are located on the outskirts of Birr within 500m of the access road to the proposed BPS. Monaghan Mushrooms is located near Ticknevin, County Kildare (Chainage TWD – 16500). The Grill Shack, Donadea, Naas, County Kildare is a steakhouse within 500m of the Planning Application Boundary (Chainage TWD – 27500). Connolly's Pub public house is 385m from the Planning Application Boundary (Chainage TWD – 29500). There is a Victorian tea rooms (200m from the Planning Application Boundary) and Barberstown Castle Hotel (350m from the Planning Application Boundary) at Barberstown Roundabout near Baybush (Chainage TWE – 7750). There is also a privately owned luxury hotel (Cliff At Lyons) situated approximately 500m south of the Planning Application Boundary at Chainage TWE – 12500.

**Reference is made to the NEHS recommendations under 'General Observations Regarding Construction Activities' and the protection of food safety during construction.**

**The NEHS recommends that where food premises are at risk from increased rodent activity the pest control plan incorporates notification to the local Environmental Health Office.** (note Matt the Thresher, Birdhill, is in North Tipperary, not Clare and the Local Environmental Health is Nenagh)

## **Chapter 6 Noise and Vibration**

The NEHS has considered chapter 6 of the EIAR and has the following observations:

- a) Section 9.5 of chapter 6 identifies mitigation measures that could be included in the Noise Management Plan. A number of the actions use undefined terms, for example in paragraph 344. *'A monitoring strategy with appropriate trigger level limits will be put in place'*. Without defining what the trigger level will be.
- b) It is important that final noise Management Plan is specific about action levels for noise and vibration that trigger a review of the effectiveness of the mitigation measures.

## **Protection of Ground and Surface Water During Construction**

The NEHS has considered Chapter 9 Water of the EIAR and appendix 9. In particular the proposed mitigation measures to protect ground and surface water from silt run off and hydro-carbon contamination during the construction phase.

The NEHS is of the opinion that if all the identified mitigation measures are implemented in full there will be adequate protection of ground and surface water during the construction phase.

## Community Gain Proposal

Table 2 1 WSP Community Benefit Scheme Overview

Category	Objective	Description
<b>Economy</b>	To support sustainable economic development within the project area through the provision of employment opportunities and the application of social inclusion initiatives.	Providing local employment opportunities for jobseekers (including support for long-term unemployed persons returning to work, youth unemployed, or persons entering the workforce for the first time) through the use of social procurement / social inclusion initiatives.
		Providing opportunities for SMEs and social enterprises to benefit from the delivery of the WSP.
<b>Education</b>	To act as a thought leader and inspire students to pursue educational pathways in science, technology, engineering or maths (STEM).	Initiatives that support progression in education at all levels or which seek to encourage pathways in STEM. Support for initiatives which seek to reduce early school leaving in disadvantaged areas.
<b>Environment</b>	To encourage and empower thriving communities through environmental protection and enhancement.	Supports for local projects that seek to protect or enhance the natural environment including those aligned with the objectives of protecting and enhancing water bodies, water conservation and climate actions initiatives as per the objectives of the Water Action Plan, the Climate Action Plan, and the National Biodiversity Action Plan.

The NEHS has considered the Community Benefit Scheme (CBS) accompanying the planning application and makes the following observations:

- a) The policy review does not include a review of where the objectives of Healthy Ireland can be incorporated into the schemes. Healthy Ireland is a cross Department, inter sectorial National Policy that has key objectives of:
  - Promoting healthy lifestyles**
  - Addressing chronic disease**
  - Reducing health inequalities, and**
  - Supporting personal health and wellbeing**

Opportunities for supporting the objectives of Healthy Ireland should be incorporated into the decision-making model for identify projects that CBS supports.

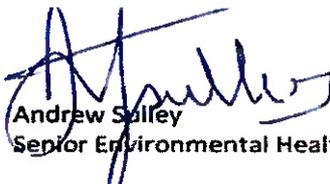
- b) A number of the policy review areas were very specific to the existing Local Authority functions and responsibilities. It is important that the CBS does not replace existing resources being allocated to community development or replace funding from Local Authorities or other Public Authorities in the project areas.
- c) The preferred option B of the governance of the CBS will result in the LAs administrating and allocating the funding for the CBS. It is important that this model is informed by stakeholders outside the LAs structures

## Summary of Recommendations

The recommendations of the NEHS are as follows:

- a) A specific Construction and Environmental Management Plan is developed for construction around Peamount Healthcare. This should be done in conjunction with representatives from Peamount Healthcare and should recognise the sensitivity of the service provision and the requirement for enhanced mitigation measures during the construction and operational phase.
- b) Any water supply used for drinking or preparation of food in the 4 temporary construction compounds, and their satellite compounds, should meet the requirements of [European Union \(Drinking Water\) Regulations 2023](#). Any water source not from a Public Water Supply should be verified as meeting these requirements.
- c) There should be no direct emission of foul or wastewater to ground or surface water. All foul wastewater that cannot be discharged to the public sewer should be contained and taken off site to a licensed treatment facility. A record of this should be maintained.
- d) Where construction is near sensitive receptors, for example food businesses, consideration must be given to any interruption of services and effects on maintaining food safety cold chains and any restrictions on food delivery routes or waste removal routes. If construction involves excavation of existing drainage or disturbing rodent habitats near sensitive receptors, then a pest control plan should be implemented. This is irrespective of the conclusion in the EIAR section 15.4.6.2.1 that the risk of increased rodent activity at food premises is minimal. If there is any increased risk to food premises from Pests/Vectors of disease, the local Environmental Health Office should be notified.
- e) Construction work outside the proposed hours of Monday to Friday – 7am to 7pm • Saturday – 8am to 4.30pm, particularly nighttime work, should be the exception and for specific operational requirements that are clearly exceptional or specific to a construction requirement.
- f) Compliance with dust monitoring standards can incorporate short periods of very high levels of dust deposition, followed by low levels, and still be compliant. Dust minimisation mitigation should be continually implemented, and any complaints are investigated and responded to and additional mitigation measures implemented when required.

- g) Floodlighting of compounds and the use of artificial light in areas of construction activity should be done according to methodology that reduces the likelihood of creating a nuisance to sensitive receptors whilst ensuring correct and safe illumination for different activities. In the absence of definitive published Irish Guidance in this area, reference should be made to UK Guidance: Society for Light and Lighting's Code for Lighting (published by the Chartered Institution of Building Services Engineers-UK) and the Health and Safety Executive's Lighting at Work (UK) (HSG38) and reference to the Lighting Plan for the MetroLink project, that addresses common issues for large scale construction projects with regard to artificial light.
- h) Trigger levels for noise, vibration and dust levels during construction should be clearly specified along with actions to be taken if the trigger levels are exceeded and reviewing the effectiveness of the actions.
- i) Opportunities for supporting the objectives of Healthy Ireland should be incorporated into the decision-making model for identify projects that CBS supports. The CBS should not be used to replace existing or intended Local Authority resources or fund the statutory functions of any Public Authority and the decision making should be transparent in this regard.

  
Andrew Salfey  
Senior Environmental Health Officer